THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE
THE 7TH MIDDLE EAST SPINE SOCIETY CONGRESS

October 24th, 25th,26th, 2024

Hilton Skanes Hotel Monastir - Tunisia

Pre congress Live Surgery

October 24th, 2024

Contact : Prof Mehdi DARMOUL, Email : mehdi.darmoul@yahoo.fr

INEAS

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

THE 7TH MIDDLE EAST SPINE CONGRESS

October 24th, 25th,26th, 2024

Hilton Skanes Hotel Monastir - Tunisia

Dear Colleagues and Friends

I'ts our honor to welcome you all to the First Monastir International Spine Conference and the 7th Middle East Spine Congress that will be held in Monastir city Tunisia on october 24th, 25 and 26th, 2024.

We are delighted to have our guests from all over the world and we are opened with our hands and hearts to everyone to join us in this exceptional event.

The scientific and the organizing committees are working hard to ensure a memorable and successful great meeting.

As we convene in Monastir, almost an island surrounded by the Mediterranean Sea on its three sides and built on the ruins of the old roman punico town of Ruspina, you will enjoy it's diverse landscapes including its sandy and rocky beaches and also a cliff extendind over nearly 6 km. We believe it provides the perfect setting for this memorial event.

Looking forward to seeing you all in Monastir

Chairman
Prof Mehdi DARMOUL
President, Tunisian Neurosurical Society

Chairman
Prof Onur YAMAN
President, Middle East Spine Society

Honorary Chairman
Prof Mehmet ZILELI
WFNS Education & Training Committee

Committees

1st Monastir International Spine Conference

Chairman : Mehdi Darmoul

Organizing Committee :

Prof Mehdi Darmoul

Prof Abderrazak Abid

Dr Lassaad Bsili

Dr Atef Ben Ncir

Dr Kais Maamri

Dr Ghassen ElKAHLA

Dr Maher Hadhri

Dr Amine Trifa

Dr Amine Hadj Taieb

Dr Ilyes Krifa

7th MESS Congress

Chairman : Onur YAMAN

Vice chairman : Mehdi DARMOUL

Secretary : Yahya Guvenc

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

THE 7TH MIDDLE EAST SPINE CONGRESS

October 24th, 25th,26th, 2024

Hilton Skanes Hotel Monastir - Tunisia

Precongress Activities Thursday October 24 th

Faculty of Medecine Monastir Tunisia

08 : 00	Registration
08:30 - 16:00	Live Surgery
16.00-16 : 30	Lunch break
16 :30- 18:00	Workshop
16 : 30 - 18 :00	Case discussion

1st Monastir International Spine Conference — 25th October, Friday — Hall A (Hilton)

08:00-08:05	Welcome message
08:05-10:00	Plenary Session I: Spinal Deformity
10:00-11:45	Plenary Session II: Degenerative Spine
11:45-12:30	Plenary Session III: Minimal invasive spine surgery

7th Congress of the Middle East Spine Society — 25th October Friday — Hall A (Hilton)

13:30-14:30	Keynote lectures- General Principles
14:30-15:15	Keynote lectures- Basilar Invagination
15:45-16:30	Panel 1-Surgery for cervical radiculopathy
16:30-17:15	Panel 2-Cervical spondylotic myelopathy
17:15-18:20	Case Presentations
17:55-18:15	Conference “The Crafting of a Scientific Manuscript"

1st Monastir International Spine Conference — 25th October, Friday — Hall B (Hilton)

14:00-16:30	Oral communications
16:30-17:45	Plenary Session IV: Spine endoscopic surgery

1st Monastir International Spine Conference — 25th October, Friday — Hall C (Hilton)

14:00-16:30	Oral communications
16:30-16:45	Plenary Session V: Conventional Spine surgery

7th Congress of the Middle East Spine Society — 26th October Friday — Hall A(Hilton)

08:30-09:15	Keynote lectures- Cervical trauma
09:15-10:00	Keynote lectures- Lumbosacral stabilization
10:30-11:15	Panel 3-Lumbar fixation techniques
11:15-12:00	Panel 4-Lumbar spinal stenosis
12:00-12:45	Panel 5-Pseudoarthrosis
13:30-14:15	Panel 6-Metastatic spine tumors
14:15-15:00	Panel 7-Spinal kyphosis
15:00-15:45	Panel 8-Adult degenerative scoliosis
16:15-17:30	Hall A: Oral presentations

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

THE 7TH MIDDLE EAST SPINE CONGRESS

October 24th, 25th,26th, 2024

Hilton Skanes Hotel Monastir - Tunisia

Precongress Activities

Thursday October 24 th

Faculty of Medecine Monastir
Tunisia Ceremonial Auditorium

8:00am - 18:00 pm

08:00 **Registration**

08:30 - 16:00 Live Surgery
Prof Douglass Orr *(ALIF)*
Prof Richard Assaker *(MIS, Spinal deformity)*
Prof Robin Srour *(facet arthrodesis of lumbar spine)*

16:00 - 16:30 **Lunch break**

16:30 - 18:00 **Workshop**

Inter laminar fixation system with simulator models
Medinlife Company Turkye
Moderators : Mehdi DARMOUL, Osama Mohamed Refat, Kais Maamri
Presentation and demostration : Osama Mohamed Refat

16:30 - 18:00 **Case discussion**

Moderators : Yahya Guvenc, Lassaad Bsili, Atef Ben Ncir

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

Friday, 25th October

Hall A (Hilton) | 8:00am - 12:30

08:00-08:05	**Welcome message** Mehdi DARMOUL
08:05-09:40	**Plenary Session I : Spinal Deformity** Moderators : Edourad Benzel, Atul Goel, Mehdi Darmoul
08:05-08:20	**Sagittal balance: importance in spine deformity** Mohamed Zohair
08:20-08:35	**Lumbar degenerative deformity: the role of the lumbar spine** Richard Assaker
08:35-08:50	**Assessing spine alignment: which measurements matter** Douglas Orr
08:50-09:10	**Trauma and deformities of craniovertebral junction** Atul Goel
09:10-09:25	**Scoliosis due to syringomyelia** Mourad Jenzri
09:25-09:40	**Discussion**
09:40-10:00	Coffee Break
10:00-11:45	**Plenary Session II : Degenerative Spine** Moderators : Douglass Orr, Hafedh Jemel, Mourad Jenzri, Onur Yaman
10:00-10:15	**Biomechanics: Nuances and Clinical Applications** Edward C. Benzel
10:15-10:30	**Vertical spinal instability- introduction of a concept** Atul Goel
10:35-10:50	**Multilevel ACDF for cervical myelopathy** Mehdi Darmoul
10:50-11:05	**Spinal arthrodesis in degenerative disorders of the lumbar spine** Imad Abelali

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

10:05-11:20	**Facet joint syndrome. Pathophysiology, diagnostic and treatment** Mehdi Ben Ammar
11:20-11:35	**Facet arthrodesis of the lumbar spine with the FFX® device: seven-year experience.** Robin Srour
11:35-11:40	**Discussion**
11:45-12:30	**Plenary Session III : Minimal invasive spine surgery** Moderators : Ihsen Zemmel, Abdessamad El Azhari, Mondher Yedeas
11:45-12:00	**Minimal invasive spine surgery: Where do we stand?** Richard Assaker
12:00-12:10	**Non invasive surgery for disc prolapse** Abdessamad El Azhari
12:10-12:20	**Robotic assisted spine surgery: adoption and clinical case discussion** Richard Assaker
12:20-12:30	**Discussion**
12:30-13:15	LUNCH BREAK

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

Friday, 25th October

Hall B (Hilton) | 14:00 - 18:00

14:00-16:30 **Hall B : Oral communications Session I Deformity**

Moderators : Khansa Abderrahmen , Mohamed Zuhir Shakir, Faouzi Abid, Ridha Chkili

CO1- **The influence of ligament biomechanics on proximal junctional angle and failure in patients with scoliosis deformity**
Ameur Ben Othman, Ahmed Mohseni
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

CO2- **Risk of repeat surgery 10 years after posterior spinal fusion for adolescent idiopathic scoliosis**
Nizar Aouinti, Ahmed Mohseni
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

CO3- **Instrumentation without graft in childhood idiopathic scoliosis: minimally invasive surgery at reduced cost**
Mohamed Zairi [1], Nizar Aouinti [1], Ahmed Amine Mohsni [1], Ameur Ben Othmen [1], Nessrine Nessib [2], Sofiene Bouali [2], Kacem Mensia [1], Sami Bouchoucha [1], Mohamed Nabil Nessib [1], Rim Boussetta1
1- Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia / 2- Department of neurosurgery, National Institute Mongi Ben Hmida of Neurology, Tunis.Tunisia

CO4- **Long term quality of life outcomes for thoracic adolescent idiopathic scoliosis patients: a minimum of 10 years follow-up study.**
Nizar Aouinti, Ahmed Mohseni
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

CO5- **Clinical and radiographic outcomes following complex spine reconstruction in neurofibromatosis with severe spinal deformity.**
Ameur Ben Othman, Ahmed Mohseni
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

CO6- **Non surgical management of idiopathic adolescent scoliosis**
Ali Hikmet Azeez
Department of Neurosurgery Ibn Sina Teaching hospital Musol Iraq

CO7- **Outcomes after coronal alignement correction in patients with trunk shift towards the curve convexity.**
Nizar Aouinti, Ahmed Mohseni, Ameur Ben Othmen, Khalil Ben Cheikh Larbi, Boucouca Sami, Nessib Mohamed Nabil, Zairi Mohamed
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

CO8- **In adolescent idiopathic scoliosis, do all instrumentation-related complications require revision surgery ?**
Nizar Aouinti, Ahmed Mohseni
Pediatric Orthopedics Department, Tunis Children Hospital, Tunisia

15:20-15:30 **Discussion**

15:30-15:45 Coffee Break

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

14:00-16:30 **Hall B : Oral communications Session II Spine trauma**

Moderators : Mourad Mtaoumi, Yassine Gdoura , Osama Mohamed Refat, Kamel Bahri

CO9- **Pitfalls in the Management of spinal cord injuries**
Ameen Abbas Ameen
Deprtment of Neurosurgery Edinburg United Kingdom

CO10- **Treatment of thoraco lumbar spine trauma in adults : experience of the CHU Neurosurgery department of Oran Algeria**
Nadir Hamel, Sofiane ferrah, Souad Daoud
Department of neurosurgery, University Hospital of Oran, Algeria

CO11- **The Role of Posterior Approach in Thoracolumbar Fracture Surgery : A Study of 104 Cases**
Emna Mzoughi, Amine Trifa, Affes Ameur, Mohamed Maher Hadhri, Kais Maamri, Atef Ben Ncir, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO12- **Short Segment Posterior Instrumentation with Intermediate Screw in Thoracolumbar Junction Injury: Prospective Study**
Karam Aldarzi, Walid W. Al-Rawi
Department of Neurosurgery, Ibn Sina teaching hospital Musol Iraq

CO13- **Surgical Management of Traumatic Injuries of the Lower Cervical Spine (C4-C7) : A Series of 82 Cases**
Ahmed Amine Daoued, Mohamed Amine HadjTaieb, Mohamed Ghorbel, Kais Maamri, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

16:20-16:30 **Discussion**

16:30-18:00 **Plenary Session IV : Spine endoscopic surgery**

Moderators : Richard Assaker, Nebil Nessib, Hedi Krifa, Salim Şentürk

16:30-16:45 **UBE: History and basic concepts**
Ahmed Belhaj Messaoud

16:45-17:00 **Endoscopic spine surgery: How to start?**
Nikolay Peev

17:00-17:15 **UBE in lumbar spine surgery**
Azad al Qadiri

17:15-17:30 **Ideal decompression for lumbar canal stenosis by UBE**
Hayati Aygun

17:30-17:45 **Transforaminal endoscopic approach as a simple solution for what we were considering complex**
Hussam Jabri

17:45-18:00 **Discussion**

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

Friday, 25th October

Hall C (Hilton) | 14:00 - 18:00

14:00-16:30 **Hall C : Oral communications Session III Degenerative spine**
Moderators : Sadok Ben Amor, Mouna Rkhami, Ali Hikmet Azeez, Samir Daghfous

CO14- **Anterior cervical decompression and fusion**
Amina Oueslati, Mohamed Amine Hadj Taieb , Ahmed Daoued, Kaies Maamri, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO15- **Cervical laminectomy versus cervical laminectomy with fusion in the treatment of cervico-arthrosic myelopathy**
Houssem Hdhili, Ghassen Gader, Wiem Mansour, Farah Bahri, Aziz Bedioui, Skander Guediche, Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kamel Bahri, Ihsen Zammel
Department of neurosurgery, Center of Trauma and Burns. Ben Arous. Tunisia

CO16- **Cervical myelopathy in the elderly: clinical, radiological, surgical and evolutionary characteristics**
Firas Sliti, A. Slimane, A. Hermassi, A. Belhadj , K. Ghedira, S. Bouali , K. Abderahmen , A. Bouhoula, I. Ben Said, J. Kallel
Department of neurosurgery, National Institute Mongi Ben Hmida of Neurology, Tunis.Tunisia

CO17- **Recurrence of operated lumbar disc herniations: a study of risk factors**
Myriam Naceur, N.Nessib , S.Farhat , M.D. Yedaes , H. Ammar, S.Achoura , A.Harbaoui, K.Radhouen ,R. Chkili, M.Yedaes
Department of neurosurgery, The Principal Military Hospital of Instruction of Tunis. Tunisia

CO18- **Evaluating Surgical Outcomes in Cauda Equina Syndrome Due to Lumbar Canal Stenosis: A Retrospective Study**
Farah Bahri, Ghassen Gader, Kerima bel Haj Ali, Houssem Hdhili, Aziz Bedioui, Skander Guediche, Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kmale Bahri, Ihsèn Zammel
Department of neurosurgery, Center of Trauma and Burns. Ben Arous. Tunisia

CO19- **Results of complete endoscopic spinal surgery for lumbar disc herniation over a 3-year period: a retrospective study**
Sofiane Ferrah, Souad Daoud
Department of neurosurgery, University Hospital of Oran, Algeria

CO20- **Transitioning from Maximal to Minimal Invasive Spine Surgery: A resident's perspective position with 10 Cases of Lumbar Disc Herniation Using the Caspar Tubular Retractor**
Mohamed Ghorbel, Ahmed Amine Daoued, Amine Trifa, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO21- **Lumbar disc herniations in the pediatric population**
Belhaj ali Kerima, Gader G., Mansour W., Bahri F., Bedioui A., Zouaghi M, Rkhami M., Badri M., Bahri K., Zammel I.
Department of neurosurgery, Center of Trauma and Burns. Ben Arous. Tunisia

15:20-15:30 **Discussion**

15:30-15:45 Coffee Break

THE FIRST MONASTIR INTERNATIONAL SPINE CONFERENCE

14:00-16:30 **Hall C : Oral communications Session IV Spine various**
Moderators : Mohamed Badri, Brahim Kammoun, Serdar Kahraman, Iadh Ksira

CO22- **The Differential Diagnosis of Spinal Tumors in 6 Challenging Cases**
Ameen Abbas Ameen
Department of Neurosurgery Edinburg United Kingdom
CO23- **Managing traumatic cervical spine injuries in the Algerian saharan desert: about 30 cases the experience of EPH Tamanrasset, 2024-2023**
Benseid, Meziane, Hadjriss
H. EPH Djanet Algeria
CO24- **Development and validation of a real time IMU for spine posture control in surgeons and interventionalists**
Sana Salah, Kais Maamri, Sami Bennour
Physical Medicine and Rehabilitation Department, Department of Neurosurgery Fattouma Bourguiba University Hospital,Monastir
CO25- **Spinal Dural Arteriovenous Fistula: How I do it.**
Malek Bourgou, Fatma Ben Atig, Slimen abdelhafidh, Ala Belhadj, Imed Ben Said, Jalel Kallel
Department of neurosurgery, National Institute Mongi Ben Hmida of Neurology, Tunis.Tunisia
CO26 **Management of degenerative cervical myelopathy: our experience**
Azzedine. Hallaci
Neurosurgery Department CHU Sétif Algeria.

16:20-16:30 **Discussion**

16:30-18:00 **Plenary Session V : Conventional Spine surgery**
Moderators : Jalel Kallel, Abderrazak Abid , Bachir Bellebna, Zaher Boudawara

16:30-16:45 **C1-C2 fixation: surgical outcome in Mosul teaching hospital**
Mohamed Zuhir Shakir

16:45-17:00 **Indication and treatment of atlanto axial dislocation**
Imad Abdelali

17:00-17:15 **Vertebral sub axial cervical approaches.**
Salman Sharif

17:15-17:30 **Recurrent disc prolapse**
Ali Hikmet Aziz

17:30-17:45 **Discussion**

THE 7TH MIDDLE EAST SPINE CONGRESS

Friday, 25th October

Hall A (Hilton) | 13:15am - 18:20

13:15-13:30 **Opening ceremony**

13:30-14:30 **Keynote lectures- General Principles**
Moderators : Edward Benzel, Onur Yaman

13:30-13:45 **Principles of deformity correction**
Onur Yaman

13:45-14:00 **Recommendations for back pain and disc herniation**
Salman Sharif

14:00-14:15 **Recommendations for metastatic spine tumors**
Mehmet Zileli

14:15-14:30 **Are there limits of endoscopic spine surgery**
Salim Şentürk

14:30-15:15 **Keynote lectures- Basilar Invagination**
Moderators : Atul Goel, Mehmet Zileli

14:30-14:45 **Diagnosis and classification of basilar invagination**
Mehdi Darmoul

14:45-15:00 **C1-C2 fixation for basilar invagination**
Atul Goel

15:00-15:15 **WFNS Recommendations for basilar invagination**
Mehmet Zileli

15:15-15:45 Coffee Break

15:45-16:30 **Panel 1 - Surgery for cervical radiculopathy**
Moderators : Mehdi Darmoul, Salim Şentürk

15:45-16:00 **Case Presentation: Cervical radiculopathy**
İsmail Bozkurt

16:00-16:15 **Anterior foraminotomy**
Ülkün Ünlü Ünsal

16:15-16:30 **Posterior Foraminotomy**
Salim Şentürk

THE 7TH MIDDLE EAST SPINE CONGRESS

16:30-17:15 **Panel 2-Cervical spondylotic myelopathy**
Moderators: Salman Sharif, Yahya Güvenç

16:30-16:45 **Case Presentation: Cervical spinal stenosis**
Rida Mazagari

16:45-17:00 **Anterior surgical techniques for CSM**
Osama Mohamed Refat

17:00-17:15 **Cervical laminoplasty vs cervical laminectomy**
Güçlühan Güçlü

17:15-18:20 **Case Presentations**
Moderators: Mohammed Zuhir Shakir, Ehab Mohamed Eissa

17:15-17:25 **Case 1**
Ülkün Ünlü Ünsal

17:25-17:35 **Case 2**
Ehab Mohamed Eissa

17:35-17:50 **Case 3 Far lateral approach for extra foraminal lumbar disc prolapse**
Lassaad Bsili

17:50-18:00 **Case 4**
Ali Hikmet Aziz

18:00-18:20 **Conference "The Crafting of a Scientific Manuscript"**
Edouard Benzel

18:30-19:30 **MESpine business meeting and welcome cocktail**

20:30-22:00 **Dinner for Faculty**

THE 7TH MIDDLE EAST SPINE CONGRESS

Saturday, 26th October

Hall A (Hilton) | 08:30 - 17:40

08:30-09:15	**Keynote lectures- Cervical trauma** Moderators : Douglass Orr, Richard Assaker
08:30-08:45	**Odontoid fixation technique** Numan Karaarslan
08:45-09:00	**Classifications systems for subaxial cervical trauma** Mehmet Zileli
09:00-09:15	**Surgical Techniques for subaxial cervical trauma** Salman Sharif
09:15-10:00	**Keynote lectures - Lumbosacral stabilization** Moderators : Salman Sharif, Saleh Baeesa
09:15-09:30	**Sacral fixation techniques** Ismail Boszkurt
09:30-09:45	**When to include L5-S1?** Ehab Mohamed Eissa
09:45-10:00	**Interbody fusion techniques for L5-S1** Mohamed Zuhir
10:00-10:30	Coffee Break
10:30-11:15	**Panel 3 - Lumbar fixation techniques** Moderators : Onur Yaman, Mehdi Darmoul
10:30-10:45	**Case: Lumbar fixation** Rida Mazagari
10:45-11:00	**MIS fixation techniques** Richard Assaker
11:00-11:15	**Lumbar fixation techniques** Yahya Güvenç
11:15-12:00	**Panel 4 - Lumbar fixation techniques** Moderators : Saleh Baeesa, Hafedh Jemel
11:15-11:30	**Case: Lumbar spinal stenosis** Brahim Kammoun
11:30-11:45	**Unilateral approach bilateral decompression** Sadok Ben Amor
11:45-12:00	**Endoscopic approach for lumbar spinal stenosis** Salim Şentürk

THE 7TH MIDDLE EAST SPINE CONGRESS

Panel 5 - Pseudoarthrosis
Moderators : Serdar Kahraman, Rida Mazagari

12:00-12:15 **Case Presentation: Pseudoarthrosis**
Osama Mohamed Refat

12:15-12:30 **Revision for pseudoarthrosis**
Saleh Baeesa

12:30-12:45 **Revision for adjacent segment disease**
Sobhy Houissa

12:45-13:30 LUNCH BREAK

13:30-14:15 Panel 6 - Metastatic spine tumors
Moderators : Numan Karaarslan, Ali Hikmet Aziz

13:30-13:45 **Case Presentation: Metastatic spine tumor**
Rida Mazagari

13:45-14:00 **Current strategies for spinal metastasis**
Serdar Kahraman

14:00-14:15 **Multidisciplinary management for spinal metastasis**
Serdar Kahraman

14:15-15:00 Panel 7 - Spinal kyphosis
Moderators : Osama Mohamed Refat, Yahya Güvenç

14:15-14:30 **Case Presentation: Spinal kyphosis**
Güçlühan Güçlü

14:30-14:45 **Surgical management of Scheurmann's Kyphosis**
Numan Karaarslan

14:45-15:00 **PSO for ankylosing sponyliditis**
Onur Yaman

15:00-15:45 Panel 8-Adult degenerative scoliosis
Moderators : Ender Ofluoğlu, Sobhy Houissa

15:00-15:15 **Case Presentation: Adult degenerative scoliosis**
Ender Ofluoğlu

15:15-15:30 **Fusion levels for ADS**
Yahya Güvenç

15:30-15:45 **Surgery for ADS**
Ender Ofluoğlu

16:15-17:30 **Hall A : Oral communications Session V**
Moderators : Salman Sharif, Yahya Güvenç

CO27- **The Elusive Dorsal Arachnoid Web: A Diagnostic Puzzle Worth Remembering**
Malek Bourgou, Fatma Ben atig, Firas Sliti, Abdelhafidh Slimen, Imed Ben Said, Jalel Kallel
Department of neurosurgery, National Institute Mongi Ben Hmida of Neurology, Tunis.Tunisia

CO28- **Post operative Lumbar disc infection POLDI**
Ali Hameid, Mustafa Nihad
Department of Neurosurgery Institute Salaheddine Erbil Iraq

CO29- **Evaluation of the frequency of pathogens seen in spondylodiscitis in our clinic**
Abdullah Talha Simsek,
Neurosurgery Department, Tekirdağ Namık Kemal University, Tekirdağ, Turkey

CO30- **Therapeutic dilemma of emergency decompressive surgery in my decompensated myelopathy?**
Feriel Mokfi, Aoun, ferdji, mimouni, benamara, benameur, Guerbouz
Department of Neurosurgery, CHU Oran Algeria

CO31- **Brown Tumors of the Spine Revealed by Spinal Compression45: 6: A Review of Four Cases**
Ahmed Amine Daoued, Ghassen Elkahla, Mohamed Ghorbel, Kais Maamri, Mohamed Amin Hadjtaieb, Amine Trifa, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO32- **Spinal Cord Ependymomas: Functional Convalescence, Immediate and Long-Term Outcomes after Surgical Treatment: A Case Series From a Single-Center Cohort of Tunisian Patients with Literature Review.**
Mehdi Borni, Houda Belmabrouk, Amal Ben Belgacem, Mohamed Zaher Boudawara
Department of neurosurgery, Habib Bourguiba UH . Sfax .Tunisia

CO33- **Vertebral metastasis**
Amina Oueslati, Amine Trifa , Mohamed Ghorbel , Kais Maamri ,Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO34 -**Surgical management of upper cervical spine injuries: Monocentric experience and revue of literature**
Mohamed Amine Hadj Taieb, Emna ELOuni, Amine Trifa, Kais Maamri, Mehdi Darmoul
Department of neurosurgery, Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO35- **Innovative balance rehabilitation in two cases of subacute combined spinal cord degeneration**
A.Kelai, I.Dghim, A.Chaabeni, S.Salah, S.Boudokhane, H.Migaou, A.Jellad, Z.Ben Salah
Rehabilitation department Fattouma Bourguiba University Hospital. Monastir. Tunisia

CO36 **A rare complication of spinal instrumentation surgery on the contralateral para vertebral space: A case report**
Kemal Paksoy[1], Onur Yaman[1], İdris Avcı[1], Ahmet Turan Dağlı[2], Salim Şentürk[3]

CO37 **Open Surgical Reduction of Pediatric C4-C5 Dislocation and Review of the literature**
Kemal Paksoy[1], İdris Avcı[1], Tansu Gürsoy[2], Salim Şentürk[3], Onur Yaman[1]
1 Üsküdar University, Faculty of Medicine, Department of Neurosurgery, Istanbul, Turkey
2 Anatolia Hospital, Department of Neurosurgery, Antalya, Turkey
3 Private Practice, Neurosurgery, Istanbul, Turkey

17:30-17:40 **Closing remarks**


MDID
Medical Devices
International Distribution


MEDORTHO


O.S.T.M
STE ORTHOSPINE TUNISIE MEDCAL


di.med.tec


UTEMED
VOTRE PARTENAIRE SANTE


Medinlife


Quality Medical Business
ZEISS
innomed


TOUCOMEX
Tout le confort du Malade


TERIAK

P1 -Acute non-traumatic spinal epidural hematoma: a rare cause of spinal cord compression

Inoubli M, Jelassi S, Naceur M, Nessib N, Dkhil I, Nagi S
Neuroradiology

Abstract :

Background : Acute non-traumatic spinal epidural hematoma is a rare but serious pathology that can lead to spinal cord compression, with potential consequences for functional and/or vital prognosis. There are many etiologies. It can be secondary to caogulopathy, vascular malformation or neoplasia. It can also develop following lumbar puncture or spinal surgery.

Aim : We report the case of a patient with an acute spinal epidural hematoma secondary to anticoagulants, complicated by spinal cord compression.

Methods Results : A 75-year-old patient with a history of hypertension and previously operated mitral valve stenosis, who was on long-term anticoagulation therapy, consulted the emergency department for rapidly progressive heaviness of all four limbs accompanied by neck pain. On examination, the patient was dyspneic with tetraparesis. High cord compression was suspected. An emergency CT scan revealed a spontaneously hyperdense anterior epidural collection in the cervical region, consistent with an acute epidural hematoma. This collection was displacing the dural sac and causing approximately 50% central canal stenosis. Biological tests revealed an anticoagulant overdose. A spinal MRI was performed to better characterize the hematoma and assess its impact on the spinal cord. It showed an oblong anterior epidural collection, extending from C2 to C5, over a height of 38mm and reaching a maximum thickness of 8mm. The hematoma appeared isointense on T1 and hyperintense on T2 with a heterogeneous liquid-liquid level. It caused obliteration of the peri-medullary fluid spaces and exerted a mass effect on the spinal cord with intramedullary T2 hyperintensity related to myelopathy. Emergency decompression surgery was carried out to evacuate the hematoma. Postoperative evolution was marked by complete recovery of the motor deficit.

Conclusion : Non-traumatic acute spinal epidural hematoma is a very rare cause of spinal cord compression. Prompt diagnostic and therapeutic management can prevent serious and potentially irreversible complications.

P2 -Atlas tubeculoma: Case report

Fatma Ben Atig, Malek Bourgou; Aziz Hermassi ; Eya Chahed ; Khalil Ghdira;
Jalel Kalle
Neurosurgery

Abstract :

Background : Pott's disease is a disease that is still common in countries with unfavorable socioeconomic conditions. It continues to pose a public health problem since it affects a young population in full activity, which shows the role of prevention. The thoracolumbar spine is the preferred seat. Tuberculous localization at the cervico-occipital hinge is very rare. It is estimated at only 1% of spinal locations.

Aim : The aim of this case report is to highlight the diagnostic and therapeutic approach in a patient with an atypical presentation of cervical tuberculosis, complicated by mechanical neck pain, trismus, and dysphagia. The case underscores the importance of considering infectious causes, particularly tuberculosis, in the differential diagnosis of osteolytic lesions of the cervical spine, and the need for appropriate surgical and medical management to ensure a favorable outcome.

Methods Results : A 63-year-old female patient, with no significant medical history and no history of tuberculosis exposure, consulted for mechanical neck pain evolving for 1 year, with progressive worsening, accompanied by trismus, torticollis, and dysphagia for solid food. The clinical examination revealed significant painful stiffness of the cervical spine, while the neurological examination was normal, particularly with no signs of medullary distress, fever, or altered general condition.

The biological workup showed a non-specific inflammatory syndrome (ESR at 95/115, WBC at 6000). Cervical spine CT showed an osteolytic lesion of the anterior arch of C1, lateralized to the left, with cortical rupture. MRI revealed a contrast-enhancing, rounded left para-vertebral lesion extending to adjacent soft tissues, sparing the aerodigestive junction, suggesting a tumor process originating from the para-vertebral soft tissues, invading the anterior arch of C1, or an infectious process with common or specific germs. Tuberculosis testing in sputum and urine was negative. The Mantoux test was negative. Wright's serology and the Card test were negative. The phosphocalcic workup and serum protein electrophoresis (SPEP) were normal. Bone scintigraphy showed no other lesions. The thoraco-abdominal-pelvic CT was normal.

Due to the invincible trismus, needle biopsy was impossible, so a surgical biopsy of the lesion was performed. The surgical approach via the left lateral cervical route revealed a cold caseous abscess. Histopathological examination confirmed the tuberculous nature of the lesion.

With anti-tuberculosis treatment, the clinical and biological evolution was favorable.

Conclusion : Pott's disease of the upper cervical spine is a very rare pathology.

The diagnosis is usually delayed until the stage of neurological deficit. It should be considered in cases of chronic torticollis associated with prevertebral thickening and C1-C2 lysis. MRI is highly valuable for diagnosis and for monitoring treated cases. Early diagnosis is essential and can be confirmed through histological and bacteriological evidence, though sometimes based on presumptive findings.

Medical treatment, including anti-tuberculosis antibiotics and cervical spine immobilization, should be the first-line approach despite the extent of bone lysis. Surgical treatment should be reserved for cases with diagnostic uncertainty, severe nerve compression, progressive worsening with or without respiratory disorders, or documented dynamic instability in patients on conservative medical treatment. With treatment, the prognosis is usually favorable.

P3 -Brachial Plexopathy Due to Compressive Mass Effect of Bone Wax: A Case Report

Ben Khalifa A, Ben Khalifa A., Bouzaouache, Ben Hafsa M, Jelassi S, Dkhil I, Rekik A, Nagi S.
Department of Neuroradiology,

Abstract :

Background : Bone wax is a hemostatic agent widely used in surgery, but since it is neither absorbed nor metabolized, its use carries risks and may lead to complications. Although its MRI characteristics are distinguishable, it is often misinterpreted as postoperative hematoma or trapped air. We report the first documented case of brachial plexopathy caused by the compressive mass effect of bone wax and the diagnostic clues that led to its identification prior to surgical resection.

Aim : To report a rare case of brachial plexopathy caused by bone wax and to highlight the diagnostic process that helped distinguish it from other potential postoperative complications.

Methods Results : We report the case of a 20-year-old male who sustained a stab wound to the right laterocervical region. CT angiography revealed a vascular injury to the V2 segment of the right vertebral artery. The patient was initially admitted with uncontrolled neck bleeding, requiring an emergency vertebral artery ligation. Forty-eight hours postoperatively, he developed right-sided arm paresthesia and weakness. Neurologic examination showed motor deficits in the right triceps and wrist extensor muscles, with an absent triceps reflex.

A cervical MRI demonstrated a well-defined mass in the epidural space at the C6–C7 vertebrae, with a signal-intensity void on T1- and T2-weighted images and no signal attenuation on T2*-weighted images. The mass did not enhance after contrast administration, making the diagnosis of epidural hematoma unlikely. Computed tomography ruled out residual postoperative air trapped in the epidural space, based on density measurements. Given the patient's surgical history, a foreign body, specifically residual bone wax, was suspected. This was confirmed intraoperatively when bone wax was found and removed, leading to complete postoperative recovery.

Conclusion : This case underscores the importance of careful evaluation of postoperative neuroimaging by neurosurgeons and neuroradiologists. When faced with unexpected masses or compressive symptoms, foreign body-related complications, such as residual bone wax, should be considered. A thorough review of the surgical procedure is essential to avoid misinterpretations and ensure appropriate management.

P4 -Can we opt for a therapeutic abstention for a spontaneous compressive epidural hematoma ?

Nesrine Nessib, Myriam Naceur, Alaa Belhaj, Abdelhafidh Slimane, Khalil Ghedira, Sofiene Bouali, Asma Bouhoula, Khansa Abderrahmen, Jallel Kallel
Neurosurgery

Abstract :

Background : Spontaneous epidural hematoma (HES) is a rare condition. Surgical treatment by decompression and evacuation remains the gold standard, but therapeutic abstention can, in rare cases, be considered.

Aim : To propose an alternative to the surgical management of HES.

Methods Results : We present the case of a 58-year-old female with a history of post-hepatitis C hepatocellular insufficiency. She presented with heaviness in her right leg, back pain, and rapidly progressive interscapular pain evolving over two weeks. A spinal MRI revealed a right-sided posterolateral epidural hematoma at the cervico-thoracic junction. Given a prothrombin time (PT) of 58% and a platelet count of 58,000, a decision was made not to perform surgery. One month later, she presented with a complete regression of her motor deficit during clinical examination.

Conclusion : Compressive HES with neurological deficit is a neurosurgical emergency. Surgical treatment remains the gold standard. However, in cases where surgery presents a high hemorrhagic risk and neurological stability or regression is observed, therapeutic abstention may be the more prudent and preferable option.

P5 -Cervical spine involvement in rheumatoid arthritis : a case report and a literature review.

Amal Benbelgacem, Talel Kammoun, Marouen Taallah, Mehdi Borni, Brahim Kammoun, Mohamed Zaher Boudawara
Department of Neurosurgery, Habib Bourguiba UH .Sfax .Tunisia

Abstract :

Background : Cervical spine involvement is a serious complication of rheumatoid arthritis RA. It can be observed even in recent times, in the era of modern therapies. AtlantoAxial Subluxation AAS, soft tissue thickening, or odontoid erosion may be identifed even in asymptomatic patients.

Myelopathy may occur at any time initially leading to headache and neck pain, followed by more advanced neurological symptoms.

Aim : We report the case of our patient. After reviewing the literature, we would like to discuss the clinical and radiological features of cervical involvement in RA patients.

Methods Results : We report the case of an 80-year-old patient with chronic renal failure and rheumatoid arthritis. She was admitted to the emergency department after slipping, resulting in lumbar trauma.

The patient had a standard X-ray of the lumbar spine, which showed no fractures. She was discharged on analgesic medication.

Two weeks later, she reconsulted. She described a progressive onset of heaviness in all four limbs, and after ten days was unable to walk. In contrast to her purely lumbar trauma, she described cervicalgia with occipital irradiation and nausea.

She was in a wheelchair. Examination showed that she was unable to walk, with cervical and lumbar spinal syndrome. She had tetraparesis, with strong osteotendinous reflexes in the upper limbs and weak reflexes in the lower limbs. This was associated with saddle anaesthesia and a bladder globe.

The fingers were noted to be « en coup de vent » with a tumified appearance of the joints and pain on joint mobilization.

A CT scan of the craniovertebral junction revealed erosion of the odontoid peg sign of cervical involvement in rheumatoid arthritis. There was a doubt on c1-c2 dislocation.

The MRI showed hypersignal on T2 sequences, indicating myelopathy.

Conclusion : During the course of RA, the involvement of the cervical spine has no clinical symptoms for a long time due to the adaptability of neurological structures. Suboccipital pain may be the frst symptom of AAS while neurological signs may not be present.

P6 -Clinical outcome after lumbar spinal fusion surgery in degenerative spondylolisthesis: a 3-year follow-up

Mohamed Ghorbel, Maher Hadhri, Ahmed Amine Daoud, Amine Trifa, Mehdi Darmoul
Neurosurgery Department

Abstract :

Background : Lumbar spinal fusion surgery is a commonly accepted treatment for degenerative lumbar spondylolisthesis, but the benefits of reducing anterior displacement and restoring sagittal alignment remain debated. This study aims to assess the impact of radiographic sagittal parameters on postoperative clinical outcomes.

Aim : The objective of this study is to evaluate the impact of radiographic sagittal parameters on the clinical outcomes of patients undergoing lumbar spinal fusion surgery for degenerative spondylolisthesis. By analyzing spinopelvic alignment and its correlation with postoperative recovery over a three-year follow-up period, the study aims to determine the significance of sagittal parameter restoration in improving patient outcomes.

Methods Results : Materials and Methods: A retrospective analysis was conducted in the Neurosurgery Department of Fattouma Bourguiba Hospital in Monastir, including patients who underwent mono- or bisegmental fusion surgery for degenerative lumbar spondylolisthesis (Meyerding grades I, II, and III) between 2019 and 2023, with a minimum follow-up of one year. Spinopelvic parameters, including sacral inclination, pelvic tilt, sacral slope, pelvic incidence, lumbar lordosis, lumbar index, anterior displacement, and sagittal rotation, were measured using plain radiographs.

Results: In our mid-term follow-up of 40 patients, lumbar fusion surgery demonstrated significant clinical benefits in the treatment of spondylolisthesis. Surgical reduction significantly improved anterior displacement and sagittal rotation. Notably, a significant correlation was found between the restoration of sagittal rotation and sacral inclination and the improvement in clinical outcome scores at the 1-year follow-up.

Conclusion : Conclusion: While lumbar fusion surgery is well-established for treating low-grade spondylolisthesis, the role of sagittal parameter restoration and reduction of anterior displacement remains debated. Our findings suggest a significant correlation between the restoration of sagittal parameters and improved clinical outcomes in the mid-term follow-up.

P7 -COMPLICATIONS OF HERNIATED DISC SURGERY IN THE NEUROSURGERY DEPARTMENT OF THE UNIVERSITY HOSPITAL OF ORAN

ferrah sofiane, bouacha amel- hamli neaama- chaa amine - daoud souad
neurosurgery

Abstract :

Background : Surgical treatment of lumbar disc herniation is widely used, and the success rate is usually estimated between 80 and 98% according to studies published in the literature [1]. However, this surgery is not without complications. As with any surgery, there are general complications (related to general anesthesia, decubitus, and the patient's condition ....) and complications related to the disc surgery (dural, vascular, neurological, and infectious injuries .....)

Aim : The aim of this work is to describe these complications, their management as well as their prevention

Methods Results : MATERIALS AND METHODS:

This is a retrospective study of 77 patients operated on by conventional approach for lumbar disc herniation in our neurosurgical department between 2014 and 2018. The posterior inter laminal approach was performed in 70 patients, a laminectomy in one case, a hemi laminectomy in three cases, with a complementary foraminotomy in 90% of our patients.

The evaluation was assessed by consulting the operative reports, the postoperative follow-up, and the short- and long-term consultation.

RESULTS:

Short and long-term postoperative results were good in 85% of cases.

Intra operatively, we had a dural breach in 02 patients and radicular damage in one patient.

in one patient, in the immediate postoperative period, 03 cases of wall infections, with persistent pain in 19 cases, late hernial recurrence was encountered in 10% of cases,

and finally a postoperative fibrosis in 4% of the cases.

Conclusion : CONCLUSION

Despite its widespread use, lumbar disc herniation surgery exposes patients to various complications

These complications must be kept in mind by the surgeon and can be avoided by adherence to simple and rigorous operative procedures, and by meticulous intraoperative and postoperative monitoring.

"Only the surgeon in whose hands this unfortunate accident occurred can understand how easily it can occur."

P8 -Crucial Insights: Post-Op Spinal Infections in Lumbar Fusion

Ameer Majeed Kareem, Salim Mardan Omer 2 , Ahmed Abduljabbar Omar3 , Ali Qais Abdulkafi
Neurosurgery

Abstract :

Background : Abstract: Postoperative spinal infections following lumbar fusion with posterior lumbar interbody fusion (PLIF) are a concerning complication, particularly in cases of degenerative spinal disease. However, factors contributing to infection risk remain unclear.

Aim : This retrospective study analyzed data from 124 adults who underwent instrumented fusion for degenerative spinal conditions between 2015 and 2020. Multivariate proportional hazards regression identified risk factors associated with surgical site infections (SSI).

Methods Results : Results revealed a 16.9% incidence of SSI, with 92.4% of cases showing positive microbiological cultures. Prolonged hospital stay, prior surgeries, advanced age, diabetes, and obesity were correlated with infection risk. Notably, 95% of infected patients were successfully treated with surgical intervention or antibiotics without hardware removal.

Conclusion : Lumbar fusion in the posterior with PLIF is a surgical remedy that is gaining prominence in the management of degenerative spinal disease. However, despite its increasing utilization, the aftermath of spinal infection remains a feared complication. According to this study, postoperative infection affected roughly 16.9% of patients, with an established correlation between this risk and a host of factors, such as prolonged hospital stay, previous surgical interventions, advanced age, diabetes, and obesity. However, it is noteworthy that 95% of infected patients received successful treatment with surgical interventions or antibiotic medication without necessitating the removal of hardware.

P9 -Degenerative Cervical Myelopathy Mimicking Parkinson's Disease

Ahmed Amine Daoued, Amine Trifa, Mohamed Ghorbel, Amina Oueslati, Mehdi Darmoul
Neurosurgery Departement

Abstract :

Background : Degenerative cervical myelopathy (DCM) is a common cause of spinal cord dysfunction but rarely presents with tremor, which is typically associated with conditions like Parkinson's disease.

Aim : This case report describes a rare presentation of DCM manifesting as dystonic tremor and brachialgia, mimicking symptoms of Parkinson's disease. The aim is to highlight the diagnostic challenges posed by this atypical presentation and discuss the successful management of the condition.

Methods Results : A 54-year-old, right-handed male presented with a dystonic tremor and aching throughout his right upper limb. MRI revealed a disc osteophyte complex at C5/C6 and C6/C7 causing severe foraminal narrowing. Electromyography confirmed chronic C6/C7 radiculopathy. Conservative medical treatments failed to alleviate symptoms. However, CT-guided root blocks at C6 and C7 led to temporary symptom relief. Definitive surgical intervention with anterior cervical discectomy and fusion (ACDF) at C5/C6 and C6/C7 resulted in immediate and sustained resolution of both brachialgia and dystonic tremor.

Conclusion : DCM can mimic Parkinson's disease, particularly when presenting with tremor. Early diagnosis and surgical intervention are crucial for preventing irreversible neurological damage. This case underscores the importance of considering DCM in the differential diagnosis of tremor and highlights the role of surgical decompression in resolving both motor and sensory symptoms. A multidisciplinary approach is essential for optimal patient outcomes.

P10 -Diagnostic and Therapeutic Challenges in Craniocervical Junction Tuberculosis: A Case Report

Mohamed Ghorbel, Fatma Kolsi, Ahmed Amine Daoud, Imen Dammak, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : Tuberculosis (TB) of the craniocervical junction is rare even where the condition is endemic. It occurs in 1–5 % of cases of TB spondylitis and poses problems in both diagnosis and management. This can be a life-threatening condition due to mass effect of infective process or resultant instability, so that it must be diagnosed early and treated promptly. Death is usually due to atlantoaxial dislocation causing compression of the cord. Surgical indications for TB of craniocervical junction are not clear from literature.

Aim : The objective of this report is to describe the diagnostic challenges and therapeutic outcomes in a rare case of craniocervical junction tuberculosis. Through the analysis of neuroradiological findings and the management approach, this study aims to highlight the importance of early diagnosis, appropriate surgical intervention, and prolonged antituberculous therapy in achieving successful outcomes.

Methods Results : Materiels and Methods :

We describe a case of a patient with craniocervical junction tuberculosis followed in our department from 2011 to 2013 in order to identify its neuroradiological particularities.

Case report :

A 19 years-old patient who presented neck pain since 2 months, resistant to analgesics. The neurological exam found restricted rotation of the neck, with or spasmodic tilting of the head. The erythrocyte sedimentation rate was 80 at the first hour. The X-ray of the cervical spine showed an atlantoaxial dislocation.

The CT scan showed a lytic process of the axis with a compressive collection. The cervical MRI confirmed the total destruction of the body and the lateral masses of the axis with a huge collection involving C1 and C2 with anterior and posterior extension. Peroral incision of the retropharyngeal mass was performed. Thick yellow pus was aspirated, necrotic tissue was curetted, and multiple tissue biopsies were obtained. Histological exams confirmed the diagnosis of tuberculosis and the was treated by immobilisation and antitubercular therapy for 12 months. At the end of the treatment, the CT scan and the MRI showed good ossification and disparition of the collection. Clinically the patient was off any neurological signs.

Conclusion : Although craniocervical junction TB is a rare disease, the outcome of treatment is good. Antituberculous drug therapy remains the mainstay of treatment after confirming the diagnosis. The surgical management options include transoral decompression with or without posterior fusion, depending upon the presence and persistence of atlantoaxial instability.

P11 -Dorsal Thoracic Arachnoid Web: A Rare Cause of Progressive Myelopathy with Syringomyelia – Diagnostic Features and Surgical Outcomes

Ben Khalifa Asma, Ben Khalifa A., Jelassi S, Bourgou M, Nouri D, Bouzaouache I, Ben Hafsa M, Dkhil I, Nagi S.
Department of Neuroradiology,

Abstract :

Background : Dorsal Thoracic arachnoid web (DAW) is a rare but significant cause of progressive myelopathy that is often misdiagnosed due to its resemblance to conditions such as dorsal arachnoid cysts or ventral spinal cord herniation. DAW is characterized by a thickened band of arachnoid tissue, most commonly located in the upper thoracic spine, which can disrupt cerebrospinal fluid (CSF) flow, leading to syringomyelia and potentially causing compression of the spinal cord. The hallmark diagnostic feature is ventral displacement of the spinal cord, which creates the characteristic "scalpel sign" on magnetic resonance imaging (MRI).

Aim : To report the diagnostic features, MRI findings, and surgical treatment outcomes in a patient with thoracic arachnoid web.

Methods Results : A 48-year-old male presented with progressive motor weakness and sensory disturbances. MRI sequences revealed posterior enlargement of the subarachnoid spaces extending from D3 to D9-D10, anterior displacement of the spinal cord with visualization of a thin upper membrane (at D3) and uncertainty regarding the presence of a second, lower membrane (at D12-L1) and syringomyelia. Complementary exploration with additional MRI sequences and a myelogram was performed, showing the "scalpel sign," which confirmed the diagnosis of an arachnoid web and ruled out an arachnoid cyst. The patient underwent successful microsurgical resection of the arachnoid web. Postoperatively, he experienced significant clinical improvement, including a reduction in neuropathic pain and partial recovery of motor and sensory functions.

Conclusion : Though rare, thoracic arachnoid web should be considered in the differential diagnosis of patients presenting with progressive myelopathy and syringomyelia. MRI, particularly with advanced imaging sequences and myelosacn, play a crucial role in accurate diagnosis. Early surgical intervention can lead to favorable outcomes by halting neurological decline and promoting recovery.

P12 -Dural fistula with perimedullar drainage: a rare etiology for paraplegia

Wièm Mansour, Ghassen Gader, Kerima Bel Haj Ali, Farah Bahri, Aziz Bedioui ,Skander Guediche , Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kamel Bahri, Ihsèn Zammel
Department of Neurosurgery

Abstract :

Background : Introduction: Dural arteriovenous fistula with spinal drainage is a rare condition that can cause irreversible neurological deficits if not treated in time. We present the case of a patient with a dural fistula revealed by symptoms of lumbar canal stenosis.

Aim : A 53-year-old male smoker presented with bilateral radicular claudication associated with low back pain evolving over six months. MRI showed intramedullary hyperintensities and dilated perimedullary veins. Spinal angiography ultimately confirmed the diagnosis of a dural fistula with perimedullary drainage. The patient underwent surgery, and the fistula, located at L1, was ligated. Clinically, the outcome was favorable, with near-complete regression of symptoms.

Methods Results : A dural fistula forms between the dural artery and spinal veins within the canal for unknown reasons, gradually congesting the canal and ultimately causing compression. It is crucial to diagnose this lesion as early as possible to preserve neurological recovery chances. The diagnosis is established via magnetic resonance imaging (MRI), showing longitudinally extensive, homogeneous intramedullary signal abnormalities on T2, associated with widening of the spinal canal and dilation of perimedullary veins. The definitive diagnosis is made through spinal angiography. Treatment options include surgery or embolization

Conclusion : Early diagnosis of dural arteriovenous fistula with perimedullary drainage is crucial for favorable functional outcomes. The initial nonspecific symptoms can be misleading, often suggesting a diagnosis of lumbar canal stenosis.

P13 -Dural Tear and cerebrospinal fluid leak following a scissors stab wound

Yassine Chaker, Fatma Kolsi, Imen Dammak, Khalil Ayedi, Brahim Kammoun, Ines Cherif, Med Zaher Boudawara
Neurosurgeru

Abstract :

Background : Spinal cord injuries are life-altering events that significantly impair motor function, sensation, and quality of life. Spinal cord injuries caused by stab wounds are typically inflicted with knives and have a relatively low incidence, representing only 0.3% of all spinal injuries. The rarity of these injuries, coupled with the difficulties of long-term clinical follow-up, may contribute to the limited literature on the demographics and functional recovery of this patient group.

Such cases of penetrating lumbar injuries leading to dural breach and CSF leak are rare and require prompt diagnosis and management to prevent complications.

Aim : This study aims to examine the clinical characteristics, management strategies, and functional outcomes of patients with spinal cord injuries caused by stab wounds, with a particular focus on penetrating lumbar injuries leading to dural breach and cerebrospinal fluid leak. We seek to address the gaps in the literature regarding the demographics, injury mechanisms, and long-term recovery of this rare patient population.

Methods Results : We report the case of a 15-year-old boy who was assaulted with scissors at the lumbar level, resulting in cerebrospinal fluid leakage from the entry point. We report the case of a 15-year-old boy who was assaulted with scissors at the lumbar level, resulting in cerebrospinal fluid leakage from the entry point

The patient presented with CSF leakage in a jet from the lumbar wound. A lumbar MRI was performed, confirming the presence of a dural tear at the L4-L5 level due to the trajectory of the scissors. Surgical intervention was performed, involving dural repair (dural plasty). The patient had a successful postoperative course with the resolution of CSF leakage and favorable neurological recovery. There were no postoperative complications, and the patient demonstrated a good clinical evolution.

Conclusion : This case underscores the critical role of imaging and timely surgical intervention in the management of lumbar dural tears caused by penetrating injuries. Early repair of the dural defect is crucial to prevent potential complications such as infection or persistent CSF leakage.

P14 -Dural tear caused by spinal instrumentation: a common complication

Walid Raddaoui, Khalil Ayedi, Rim Baklouti, Brahim kammoun, MZ. Boudawara
Neurosurgery department of Sfax

Abstract :

Background : Iatrogenic cerebrospinal fluid leakage (CSF-L) is frequent (dural puncture, epidural anesthesia, spinal instrumentation …). This condition can lead to intracranial hypotension and meningitis. Epidural Blood Patch (EBP), which involves injecting autologous blood into the epidural space, is considered the gold-standard treatment for CSF-L if conservative management is not effective.

Aim : to show the importance of the EBP in CSF leakage

Methods Results : A 54-year-old man underwent PLIF for very severe spinal stenosis. The intervention was complicated by a dural tear that was sutured. The patient presented with headache, purulent discharge from the surgical scar associated with CSF-L on postoperative day 12. Fluid collection at the operation site was observed on MRI images. Urgent evacuation of the collection, absolute bed rest, antibiotherapy and lumbar drain catheter insertion were performed for 13 days, but the patient continued to complain of severe headache and the drainage amount still did not decrease. An EBP was applied to the epidural space at the site of dural injury, and the patient's symptoms improved.

Conclusion : CSF leakage following spinal instrumentation can lead to intracranial hypotension and meningitis. In such cases, an epidural blood patch (EBP) may be necessary if conservative treatment is unsuccessful

P15 -Failed Back Surgery Syndrome, about 30 cases

Hajer Kammoun, Sameh Achoura, Firas Guidara, Mohamed Dehmani Yedeas, Khaled Radhouen, Ahmed Harbaoui, Ridha Chkili
Neurosurgery

Abstract :

Background : Failed back surgery syndrome (FBSS also called "post-laminectomy syndrome") is defined as persistent pain in the lumbar region or lower limbs, for more than a year, despite one or more surgical procedures. This definition is so general that it does not guide the original iatrogenic therapeutic strategy. FBSS itself can be a source of additional iatrogenesis. In fact, the success rate of spinal surgery decreases with each procedure performed, to around 15 after a third procedure.

Aim : This work focuses on the main predisposing factors to this syndrome and on the therapeutic strategy

Methods Results : This is a retrospective study about 30 cases of patients who underwent surgeries on lumbar spine, more than once in the neurosurgery department of the Military Hospital of Tunis between 2010 and 2017 and who presented lower back pain and/or sciatica postoperatively.

60% of patients were operated on a lumbar disc herniation, the rest on a narrow lumbar canal. 35% of cases presented a neuropathic pain sequelae in lower limbs, resistant to well-conducted medical treatment and epidural infiltrations. Lumbar magnetic resonance imaging showed postoperative fibrosis in 20% of the cases. Several factors that may be involved were found: major and/or prolonged compression of the nerve root during the preoperative period, the occurrence of a surgical complication, or a perioperative nerve injury, and the development of postoperative reactive periradicular fibrosis. A detailed clinical assessment must be carried out to identify the psychological repercussions, possible secondary benefits, and especially the mechanisms of pain, in particular the existence of a neuropathic component and/or possible spinal instability.

A new surgical procedure is only considered if there is a documented recurrence of a herniated disc or a spinal instability.

Conclusion : The management of FBSS is based firstly on its prevention, which should lead to avoiding any spinal surgery in the context of common low back pain. The consequences of surgical failure can be serious, particularly on a socio-professional level. Its management is first etiological and must be as conservative as possible to avoid causing additional iatrogenicity.

Drug treatments and cutaneous or even spinal stimulation can play a key role in the neuropathic pain component.

Rehabilitation is essential in certain cases, particularly, in the management of discogenic pain. Infiltrations can be beneficial for treating facet syndrome (posterior joint infiltration), tendinopathy, coxopathy, in persistent disco-radicular conflict and in certain epidural fibrosis.

P16 -Idiopathic Thoracic Spinal Cord Herniation: Diagnostic Contribution of MRI in Two Case Studies

Dorsaf Nouri, Asma Ben khalifa, Meriem Ben Hafsa, Soumaya Jelassi, Sonia Nagi
Department of Neuroradiology

Abstract :

Background : Idiopathic spinal cord herniation is a rare but significant cause of progressively evolving myelopathy. This condition is marked by the abnormal protrusion of the spinal through a defect in the dura mater, particularly in the dorsal region, leading to compression of the spinal cord and gradually worsening neurological function. Magnetic resonance imaging (MRI) plays a crucial role in detecting this pathology, revealing a typical radiological pattern. This facilitates appropriate management, often surgical, to relieve the compression and prevent further deterioration of symptoms.Haut du formulaire

Aim : To report two cases of idiopathic thoracic spinal cord herniation and highlight the contribution of imaging in the positive diagnosis of this rare condition.

Methods Results : Case 1: A 55-year-old woman admitted for progressive walking fatigue over 10 months. Spinal and Brain MRIs, along with a myelogram, were performed. Case 2 : A 57-year-old man, operated twice for lumbar disc herniation, consulted for progressive worsening of gait disturbances. Clinical examination revealed a sensory level at T8. The patient underwent spinal MRI.

In both cases, MRI showed segmental distortion of the thoracic spinal cord, displaced forward, with posterior subarachnoid space enlargement. The spinal cord signal was normal in both patients. In case 1, the spinal segment below the hernia appeared slightly atrophic. A posterior intradural arachnoid cyst adjacent to the hernia was excluded in the first case by myelography and in the second case by 3D CISS sequence.

Conclusion : Spinal cord herniation is a rare but severe condition that can lead to significant neurological impairments. Early identification through imaging, especially MRI, is essential for effective treatment.

P17 -Intradural lumbar disc herniation

Imen Dammak, Fatma Kolsi, Khalil Ayadi, Emna Ouni, Brahim Kammoun, Ines Cherif, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : Intradural disc herniation refers to the displacement of the intervertebral disc nucleus pulposus into the dural sac. This condition is an exceptionally rare manifestation of degenerative lumbar disease, particularly in the elderly. The underlying mechanisms and natural progression of lumbar disc herniation into the dural space remain poorly understood

Aim : The aim is to highlight the diagnostic challenges and therapeutic strategies for intradural lumbar disc herniation, an exceptionally rare condition. We emphasize the importance of recognizing IDH intraoperatively when preoperative imaging findings are inconclusive, and we discuss the role of surgical intervention, its favorable outcomes, and a review of the literature on its pathogenesis, natural course, diagnosis, and treatment

Methods Results : A 42-year-old woman with a history of hypothyroidism on Levothyrox was admitted for paralyzing lombosciatica.

The history of the illness dates back 20 days, characterized by the onset of lower back pain without radiation to the lower limbs and without any bladder or sphincter dysfunction. There was no heaviness in the lower limbs, and the symptoms were slightly alleviated with symptomatic treatment.

The evolution was marked by the onset of heaviness in the right foot without bladder or sphincter issues.

Examination findings revealed a right L5 deficit (dorsiflexion weakness: 3/5, big toe extension: 2/5, and foot drop while walking). There was hypoesthesia on the dorsum of the right foot but no saddle anesthesia. No deep sensory disturbances were noted.

An MRI of the lumbar spine revealed a right paramedian herniation at L4-L5, migrated downward in contact with the right L5 root, raising suspicion of intra-dural extension.

The patient underwent emergency surgery. Intraoperatively, the herniation was confirmed to be intra-dural, located anterolaterally on the right. A herniectomy was performed along with dural breach repair.

Conclusion : Intradural lumbar disc herniation should be strongly suspected when intraoperative findings do not align with preoperative imaging. Confirmation can be achieved through intraoperative ultrasonography and pathological examination of the resected tissue from the dural space. Early surgical intervention is recommended, with generally favorable outcomes. Additionally, we reviewed the literature and discussed the potential pathogenesis, natural history, diagnostic challenges, and treatment options for intradural lumbar disc herniation.

P18 -Management of Cervical Pseudotumor Tuberculosis : Case report

wiem boudabbous, MM. Hadhri, E.Ouni , MA. Haj Taieb, M. Darmoul.
Neurosurgery Department of Fattouma Bourguiba University Hospital.

Abstract :

Background : Cervical pseudotumor tuberculosis is a rare form of extrapulmonary tuberculosis that mimics neoplastic lesions, both in clinical presentation and imaging findings; Early recognition and appropriate management are essential to prevent complications.

Aim : We report the case of a young patient with cervical pseudotumor tuberculosis who presented with cervical pain and associated radicular symptoms.

Methods Results : A 21-year-old female with no significant medical history was admitted for persistent cervical pain accompanied by bilateral C6 cervicobrachial neuralgia, more pronounced on the right side. The patient also reported night sweats and unexplained weight loss. On physical examination, there was no motor deficit in the four limbs, but hyperreflexia was noted in the lower extremities.

Cervical MRI revealed a disco-corporeal lesion at C6 and C7 with almost total destruction of the C7 vertebra, anterior detachment of the anterior ligament, and involvement of the paravertebral muscles with anterior epiduritis. No pulmonary tuberculosis lesions were identified on a thoraco-abdominal-pelvic CT scan, and laboratory tests returned negative results. The histopathological examination concluded a diagnosis of tuberculous spondylodiscitis.

The patient underwent anterior surgical intervention with corpectomy of C6 and C7, followed by osteosynthesis. Post-operative recovery was uncomplicated, and the patient showed significant improvement in clinical symptoms.

Conclusion : Cervical pseudotumor tuberculosis, although rare, should be considered in the differential diagnosis of young patients presenting with persistent neck pain, neuralgia, and systemic symptoms such as night sweats and weight loss. Early diagnosis through imaging and biopsy, followed by appropriate anti-tuberculosis treatment and surgical intervention when necessary, can lead to excellent outcomes.

P19 -Management of Thoracic Disc Herniations in Fattouma Bourguiba Neurosurgery Department, Monastir: A Case Study of Six Patients

Ameur Affes, Amine Trifa, Mehdi Darmoul
Neurosurgery Department, Fattouma Bourguiba Hospital, Monastir, Tunisia

Abstract :

Background : Thoracic disc herniations are very rare and present unique challenges in neurosurgery. This study aims to evaluate the management and clinical outcomes of six patients with thoracic disc herniations in our neurosurgery department.

Aim : This study aims to evaluate the management and clinical outcomes of six patients with thoracic disc herniations in our neurosurgery department.

Methods Results : Methods: We reviewed the records of six patients diagnosed with thoracic disc herniations. All of them, underwent surgical intervention. One patient required reoperation for the removal of hardware after the initial surgery. Another patient, who also had a cervical disc herniation, was only operated on for the thoracic disc herniation.

Results: For these six patients, each one was presenting with different consultation reasons and clinical profiles. Various surgical techniques were employed, selected on a case-by-case basis. Post-operative outcomes were generally satisfactory, though some complications were observed. The post-operative follow-up was moderately conclusive due to the recency of these cases and difficulties in maintaining patient contact.

Conclusion : Thoracic disc herniations require a carefully tailored surgical approach, especially in the presence of complications or concomitant pathologies. The results suggest that interventions can be effective in alleviating thoracic symptoms, but careful management is necessary to address potential complications and comorbidities.

P20 -MRI Findings in Spinal Tuberculosis: Beyond Pott's Disease

Dorsaf Nouri, Ines Bouzaouache, Meriem Ben Hafsa, Jelassi Soumaya, Sonia Nagi
Department of Neuroradiology

Abstract :

Background : Spinal tuberculosis, commonly known as Pott's disease, is a form of extrapulmonary tuberculosis that primarily affects the vertebrae, leading to bone destruction, deformity, and neurological deficits. Spinal tuberculosis can manifest in more complex beyond these hallmark features. Involvement of the spinal cord, meninges, and nerve roots presents additional diagnostic challenges and requires a more nuanced understanding of the disease. Tuberculous myelitis, intramedullary tuberculomas, spinal meningitis, and arachnoiditis are less common but significant manifestations that contribute to spinal cord compression and neurological impairment. These complications may occur with or without typical vertebral involvement, making early detection using advanced imaging techniques essential for appropriate diagnosis and management.

Aim : To describe MRI findings in spinal tuberculosis beyond the classical presentation of Pott's disease.

To improve diagnostic accuracy by identifying and characterizing atypical MRI features associated with spinal tuberculosis.

Methods Results : MRI is the most sensitive and comprehensive modality for detecting and evaluating spinal tuberculosis, providing critical insights beyond the vertebral destruction seen in Pott's disease. Characteristic MRI findings include vertebral body collapse, disc space narrowing, and paraspinal abscesses, which often exhibit rim enhancement after contrast administration. More advanced cases may involve tuberculous myelitis, manifesting as cord edema, hyperintense lesions on T2-weighted images, and expansion of the spinal cord, along with patchy or diffuse enhancement post-contrast. Additionally, intramedullary tuberculomas present as well-circumscribed lesions with central hypointensity on T1 and hyperintensity on T2, often surrounded by a ring of granulomatous inflammation. Spinal tuberculosis can also cause epidural abscesses, which displace or compress the spinal cord, and cold abscesses with minimal inflammatory response that typically exhibit non-enhancing central fluid collections. Tuberculous meningitis is another critical manifestation, with MRI showing thickened and enhancing meninges, particularly around the spinal cord and cauda equina, while arachnoiditis may lead to nerve root clumping and fibrosis, especially in the lower spinal regions. These diverse imaging features draw attention to MRI's crucial role in early detection, detailed assessment of disease extent, and differentiation of spinal tuberculosis from other spinal pathologies, ultimately guiding effective management and treatment strategies

Conclusion : MRI plays an essential role in identifying atypical presentations of spinal tuberculoses, providing a comprehensive evaluation of disease progression and the extent of involvement beyond the bones. Understanding the broader spectrum of spinal tuberculosis is essential for improving diagnostic accuracy, guiding treatment, and preventing long-term complications.

P21 -Multilevel cervical laminectomy, a treatment with unhidden side effects

Hajer Kammoun, Sameh Achoura, Mohamed Dehmani Yedeas, Khaled Radhouen, Ahmed Harbaoui, Ridha Chkili
Neurosurgery

Abstract :

Background : The frequency of static modifications in the cervical spine after multilevel laminectomy in cervicarthrosic myelopathy is probably overestimated. Their consequences on the clinical outcome remain unknown.

Aim : The purpose of this work is to describe the incidence and consequences of cervical spinal deformity and instability after multilevel laminectomy in adult patients with cervical spondylotic myelopathy and to study the predisposing factors.

Methods Results : 50 patients, who underwent a laminectomy of more than 3 levels without fusion for cervical spondylotic myelopathy were reviewed retrospectively with an average follow-up of 7 years. The average age of our patients at surgery was 60 years with a male predominance. Laminectomies were extended generally from C3 to C7 with an average number of 4,6 vertebrae per patient. In all cases, laminectomy respected C2 and the facet joints. The average Nurick score was 3,4 preoperatively and 1,1 postoperatively. In the postoperative course, there was a change in the curvature of the cervical spine in 13 patients (26%). At the last follow-up, 17 spondylolisthesis occurred or worsened. This was 13 times a new slide and 4 times the aggravation of a preexisting one. Patient age, sex, the extent of the laminectomy and the presence or absence of a preoperative spondylolisthesis had no significant association with the cervical spine curvature angle after laminectomy for cervical spondylotic myelopathy. A gooseneck shaped or a kyphotic cervical spine are the only factors found to predispose to the occurrence or significant aggravation of kyphotic cervical spine disorder. Age below 60 years was correlated with a higher risk of developing or worsening of spondylolisthesis postoperatively. Postoperative onset or exacerbation of cervical spine curvature change had no significant impact on the overall functional outcome of patients while the onset or worsening of postoperative spondylolisthesis were associated with poorer functional outcome.

Conclusion : Posterior cervical laminectomy still has its role and indications and is no more a historical procedure. The claimed complications can be minimized by the proper selection of the patient according to good clinical and radiological studies. Being old and the absence of preoperative instability yield the best results, whereas the younger the patient and the presence of preoperative instability can lead to undesirable results.

P22 -Navigating Back Pain in Coexisting Degenerative Spine Disease and Intradural Tumors

Houssem Hdhili, Ghassen Gader, Kerima Belhaj Ali, Mohamed Ali Kharrat, Aziz Bedioui, Skander Guediche, Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kamel Bahri, Ihsen Zammel
Department of neurosurgery

Abstract :

Background : Back pain and sciatica, with or without neurological deficits, are mostly caused by degenerative spine disease.
Intradural tumors are rare, but the symptoms can mimic the typical clinical picture of disc herniation or lumbar stenosis causing a delay in diagnosis and treatment and the coexisting with a degenerative spine disease is possible making the diagnosis even more difficult and complicates the decision making for the treatment.
Aim : Analyse the impact of surgery while dealing with back pain in patients with intradural tumor in the presence of degenerative spinal disease in adjacent segments.
Methods Results : We report the case of a 47-year-old woman, with no significant medical background, who presented for the onset of back pain followed by sciatica in both limbs and intermittent medullary claudication without bladder and sphincter dysfunction. Neurological examination revealed a lumbar spine syndrome and a pyramidal syndrome without motor or sensory deficit. Lumbar MRI showed a narrow lumbar canal with maximum of stenosis from the levels of L3 to L5 associated to a tissular intradural extramedullary lesion at the level of L1.
The patient underwent surgery with laminectomy from L2 to L5, posterior fusion and extraction of the tumor. Histopathological analysis revealed a grade 1 neurinoma and the patient's complaints were relieved.
Conclusion : Surgery for intradural spinal tumors improves back pain in the majority of patients with coexisting degenerative spinal disease. Intradural spinal tumors seem to be the only cause of back pain more often than is appreciated. In these patients surgical overtreatment seems to be a greater risk than undertreatment. Therefore, elaborate clinical and radiological examinations should be performed preoperatively and the indication for stabilization/fusion should be discussed carefully in patients foreseen for first time intradural tumor surgery.

P23 -Pronostic factors for cauda equina syndrome: 53 cases serie

Fatma Ben Atig, Malek Bourgou, Aziz Hermassi, Karima Belhadjali, Sofien Bouali, Jalel Kallel
Neurosurgery

Abstract :

Background : Cauda equina syndrome is a rare clinical entity which is secondary to the compression of the cauda equina roots. It is a diagnostic and therapeutic emergency, marked by motor, sensory and genitourinary sequelae that may be irreversible, with a significant impact on the patient's life and his social rehabilitation.

Aim : We carried out this study to analyze the epidemiological, clinical, para-clinical and evolutionary characteristics and to study and identify the different prognostic factors.

Methods Results : We performed a retrospective study of 54 cases of Cauda equina syndrome operated in emergency at the neurosurgery department of the National Institute of Neurology of Tunis over a period of 10 years from 2010 to 2019. The average age of our patients was 45 years. The most represented age group was between 40 and 49 years (42.6%). Our series included 41 men (76%) and 13 women (24%). The time course varied from one day to 6 months. Only 14.8% of the cases had a delay of less than 48 hours. The onset was progressive in 74% of cases. The functional signs were dominated by genital-sphincter disorders (100% of cases). The other signs were low back pain in 79% of cases, radiculalgia in 90.7% of cases, paresthesia in 51% of cases and motor disorders in 87.1% of cases. Perineal sensory disorders were observed in 37% of cases. The complete form of cauda equine syndrom, which is defined by the presence of acute retention of urine with overflow voiding, was found in 37% of cases.Our series included an incomplete form of cauda equina syndrome in 63% of the patients. Lumbar MRI, performed in all our patients, was the examination of choice and allowed to confirm the diagnosis and to orient the etiology. The etiological origin was dominated by lumbar disc herniations, which were found in 87% of cases, followed by tumor causes in 13% of cases. Urgent surgical decompression was performed in all patients. The long-term evolution (2 years of follow-up) was stationary in 37% of the cases, favorable in 61.1% of the cases of which 33.3% had a complete recovery, with only one case of aggravation (1.9%). Our analytical study showed significantly a favorable evolution in the age group below 45 years. The incomplete form was significantly associated with a favorable evolutionary prognosis. A duration of evolution lower than 48 hours is associated with better prognosis. The presence of anaesthesia in the saddle is a statistically significant factor of poor prognosis.

Conclusion : Cauda equina syndrome is a neurosurgical emergency marked by severe motor and sphincter sequelae. Urgent surgical decompression within 48 hours of the onset of signs and the incomplete form are associated with a favorable evolution.

P24 -Rachischisis without Acrania in a Newborn Male : A case report and review of literature.

Amal Benbelgacem, Souhir Abdelmouleh, Mehdi Borni, Marouen Taallah, Brahim Kammoun, Mohamed Zaher Boudawara
Department of Neurosurgery. Habib Bourguiba UH. Sfax. Tunisia

Abstract :

Background : Rachischisis is a rare open neural tube defect often associated with lethal acrania that occurs in utero around the third or fourth week after conception.
When acrania is not present, mortality remains high and morbidity for survivors is extreme.

Aim : We report a full-term male newborn with in-utero diagnosed rachischisis with subsequent hydrocephalus without acrania.

Methods Results : From a non-consanguineous marriage and a mother with a history of G4P1A2, he was born in a regional hospital in the south of Tunisia. At birth, clinical examination revealed a spinal defect extended from the lower thoracic to the sacral vertebrae. The infant was paraplegic. Cerebrospinal fluid was leaking from the red dorso-lumbar mass mesuring 12*6 cm.
The lesion was wrapped in sterile bandages. Nursing was performed daily. He developed meningitis the day he was born. He was administered antibiotics. He died at the age of 8 days.

Conclusion : Survival with variable function and quality of life is possible with severe open neural tube defects. A multidisciplinary team approach including family-centered care is fondamental.

P25 -Spinal cord injury: A rare complication for anterior cervical dissectomy with fusion

Roua Latrach, Rihab Ben Fradj, Omar Hattab, Med Amine Hmida, Chiheb Abelilah, Kaouthar Somrani, Mahmoud Ben Messaoud, Mohamed Chabaane, Iadh Ksira
Department of Neurosurgery

Abstract :

Background : Degenerative cervical myelopathy (DCM), previously referred to as cervical spondylotic myelopathy, involves spinal cord dysfunction caused by compression in the neck. It is the most common cause of adult spinal cord dysfunction worldwide, with its prevalence increasing significantly with age. Without surgical intervention, there is a high rate of neurological decline. Although generally safe and effective, surgery for DCM is associated with complications in 11%–38% of patients. One of the complications is iatrogenic spinal cord injury, which can lead to deterioration in neurological function. While rare, accounting for less than 1% of cases, its impact on daily life is significant, especially for the elderly population.

Aim : Through this study, we aim to highlight this rare complication and define precautions that can be taken before and during surgery.

Methods Results : We present two cases of patients operated on in our department for DCM.

The first patient is a 75-year-old woman who presented with C5 and C6 bilateral neuralgia. On examination, she had a C5 left-sided motor deficit. MRI imaging showed C5-C6 DCM secondary to a cervical herniation. She underwent a double discectomy at C4-C5 and C5-C6 with fusion. Postoperatively, she developed left hemiplegia.

The second patient is a 64-year-old man with no medical history, who presented with C4 and C5 right-sided neuralgia, medullary claudication, and bladder-sphincter disorders. On examination, the patient had spastic tetraparesis. MRI imaging revealed a C3-C4 myelopathy. He underwent a C3-C4 discectomy with fusion. Postoperatively, he developed left hemiparesis.

Conclusion : Although rare, spinal cord injury leading to deteriorating neurological function significantly affects the patient and their family. Several factors should be considered, and precautions should be taken to minimize these risks.

P26 -Spinal inflammatory pseudotumor

Walid Raddaoui, Fatma Kolsi, Imen dammak, Ines Cherif, Brahim Kammoun, Khalil Ayedi, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : Non-traumatic dorsal spinal cord compressions are rare. We report an atypical case of non-traumatic dorsal spinal cord compression in a 35-year-old man presenting with heaviness in the lower limbs, diagnosed by MRI and confirmed intraoperatively.

Aim : This report aims to describe an atypical case of non-traumatic dorsal spinal cord compression in a young adult, highlighting the clinical presentation, diagnostic process, and intraoperative findings. By sharing this rare case, we seek to raise awareness of non-traumatic spinal cord compressions and emphasize the importance of early diagnosis and intervention.

Methods Results : We report a case of non-traumatic dorsal spinal cord compression in a 35-year-old man treated at the neurosurgery department of the University Hospital of Sfax

A 35-year-old man was hospitalized for heaviness in both lower limbs. He had no significant personal or family medical history. On questioning, the patient reported experiencing back pain a few months earlier, which had progressively worsened into severe heaviness in both lower limbs. Clinical examination revealed a spastic paraparesis predominantly on the left side. Spinal MRI showed compression from T5 to T11. He underwent emergency surgery with a favorable postoperative outcome. Histopathological examination concluded with an inflammatory pseudotumor.

Conclusion : Inflammatory pseudotumor in the spinal canal is an uncommon condition, particularly rare in the epidural space. Although benign, it has the potential to invade surrounding tissues and recur. Therefore, complete surgical resection and long-term follow-up are essential for optimal outcomes.

P27 -Spontaneous spinal epidural hematoma , wait and see strategy , a case report and revue of litterature

Rihab ben Fredj, Majdouline Barkache, S.Galaoui, M.chabaane, M.ben Messoud, K.Somrani, ch.abdelileh, H.ben selma, A.maliki, K.iadh
service de neurochirurgie sahloul

Abstract :

Background : Spontaneous spinal epidural hematoma (SSEH) is a rare but potentially devastating condition characterized by the accumulation of blood in the epidural space without any known trauma, surgery, or coagulopathy. timely diagnosis and intervention are critical for favorable outcomes but spontaneous resorption s also possible, as shown in this case.

Aim : clincal expression , treatment and evolution of Spontaneous spinal epidural hematoma and the adequate time of surgery .

Methods Results : A 54-year-old female who presented a brutal bilateral lumbosciatalgia.

The patient reported no history of trauma, recent surgery, or use of anticoagulants. Physical examination revealed no motor or sensitiv deficit but a urinary retention is noted .

Magnetic resonance imaging (MRI) of the spine revealed a large epidural hematoma extending from T11 to L2. Laboratory tests showed normal coagulation parameters, and no underlying bleeding disorder was identified.

Outcome and Follow-up:

At the 3-month follow-up, MRI showed complete resorption of the hematoma and a sequellar myeletis .

Conclusion : SSEH is a rare condition that requires high clinical suspicion for early diagnosis. MRI remains the gold standard for diagnosis. surgery can be delayed if there are no signs of spinal cord compression, while waiting for spontaneous resorption.

P28 -Spontaneous spinal epidural hematoma: A report of a case and review of the literature

Amal Benbelgacem, Borni Mehdi, Daoud Hatem, Taallah Marouen, Kammoun Brahim, Boudawara Mohamed Zaher
Department of Neurosurgery – UHC Habib Bourguiba –Sfax

Abstract :

Background : The epidural hematomas are rare pathologies. The traumatic is the most common cause while impaired blood dyscrasias, secondary or not to anticoagulants, are the most common causes of forms known as "spontaneous". They are an emergency diagnostic via MRI and therapeutic in view of rapid decompression of the spinal cord.

Aim : We report a case of dorsal spontaneous epidural hematoma treated in UHC Bourguiba (Sfax) with a literature review.

Methods Results : 22 year old patient with no medical history consults for a sudden onset of the lower two members associated with excruciating back pain. The objective clinical examination shows a proximo-distal paraplegia predominant at the left with a sensory level D5-D6. MRI shows an expanded epidural hematoma from D4 to D6 compressing the spinal cord. The patient underwent emergency dorsal laminectomy and an almost complete evacuation of the mottled hematoma. The postoperative course was uneventful with early motor recovery.

Conclusion : Although rare, the spontaneous epidural hematoma should be promptly referred to a violent spinal pain and sudden onset. Emergent MRI is the examination of choice, thanks to spin-echo T1 sequences whose signal at the sub-acute stage is very evocative. Vertebral and spinal angiography finds its place in the workup. The surgical strict attitude remains the treatment of choice associated later to medical treatment based on corticosteroids.

P29 -surgical managment of epidural spinal cord compression: a single center experience over five years

Emna Elouni, Wiem Boudabbous, Amine Trifa, Mohamed Amine Hadj Taeib, Ilyes Krifa, Mohamed Maher Hadhri, Elkahla Ghassen, Maamri Kais, Ben Nsir Atef, Darmoul Mehdi
department of neurosurgery

Abstract :

Background : The surgical management of epidural spinal cord compression remains a critical challenge in neurosurgery.

Aim : Our aim is to highlight the variability of surgical management strategies for epidural spinal cord compression

Methods Results : In this retrospective study, we report a single-center experience over a 5-year period in the surgical management of epidural spinal cord compression, with a minimum follow-up of 6 months.

Seventeen patients were included in this study (10 females and 7 males) with a median age of 53.47 years (range: 15–80 years). Five patients had a known history of neoplasms with potential vertebral metastasis. At diagnosis, 13 patients presented with motor deficits in both lower limbs, along with vesico-sphincter disturbances. Imaging revealed thoracic vertebral osteolytic lesions with spinal cord compression in 12 patients, lumbar involvement in 3 patients, and sacral lesions in 2 patients.

Surgical interventions varied: 10 patients underwent spinal decompression through laminectomy alone, with favorable outcomes. Complete tumor excision was achieved in 4 cases, and spinal fusion was required in 1 case. Histopathological analysis revealed 10 secondary lesions, including 3 cases associated with Hodgkin lymphoma, 3 with prostatic adenocarcinoma, 2 with pulmonary adenocarcinoma, 1 with colonic adenocarcinoma, and 1 consistent with multiple myeloma. Other diagnoses included plasmocytoma, chordoma, venous malformation, and hydatid cyst. In 3 cases, histopathological examination revealed necrotic cells without specific characteristics.

Conclusion : our study highlights the variability of surgical management strategies for epidural spinal cord compression, with laminectomy alone proving to be an effective approach in most cases. Tumor excision and spinal fusion were reserved for more complex cases. The histopathological findings underscore the diverse etiologies of spinal cord compression, with secondary metastases being the most common.

P30 -Symptomatic Tarlov cyst: A Case Report and Surgical Techniques

Hatem Daoud, Talel Kammoun Hichem Ben Selma Rihab Ben Fraj Abdelmajid Mlaiki Iadh Ksira
Neurosurgery CHU Sahloul sousse

Abstract :

Background : Tarlov perineurial cysts are lesions of the nerve root arising from pathologically increased hydrostatic pressure in the spinal canal. They are often found in the sacral region. These cysts are a rare source of pain and should be followed but patients with symptomatic Tarlov cysts should be treated surgical

Aim : The purpose of this report is to describe and illustrate the different surgical technical of tarlov cyste.

Methods Results : We present the cas of a 42-year-old man presented with a 4-month history of increasing sacral, left buttock, and left posterior thigh and leg pain without sphincter disorder. This pain was worsened by standing and walking and relieved by sitting. the patient presented an intermittent spinal claudication disorder. The clinical examination revealed a normal strength and tone were with a hypoesthesia in the territory of S2. Deep tendon reflexes were present and symmetrical. Sphincter tone was normal. Magnetic resonance imaging demonstrated a 2cm cystic mass occupying the sacral canal, with bone erosion and compression of sacral nerve roots. Sacral laminectomy revealed that the cyst originating from the right S-2 nerve root and compressing both S-2 nerve root sleeves and causing bone erosion of the sacral canal. Surgical treatment involves sacral laminectomy with cyst drainage. The cyst was resected and the neck was ligated. The patients' neurologic symptoms improved postoperatively specially the pain.

Conclusion : The surgical management of symptomatic Tarlov cysts remains a challenging area of neurosurgery, with various techniques available, each carrying its risks and benefits. While cyst fenestration and drainage offer temporary relief for many patients, more advanced techniques, such as cyst wall resection with dural repair, have shown promise in providing long-term relief and reducing recurrence rates. However, further research is necessary to optimize treatment strategies and improve patient outcomes. Surgeons must carefully weigh the risks and benefits of each technique based on the individual patient's clinical presentation and overall health.

P31 -Thoracic myelopathy caused by calcification of the ligamentum flavum

hatem daoud, Ahmed Maatoug , Amal Ben Balgacem , Walid raddoui , Imen Dammak , Brahim kammoun , Mohamed Zaher Boudawara
Neurosurgery

Abstract :

Background : Calcification of the ligamentum flavum (CLF) is an uncommon condition characterized by the deposition of calcium salts within the ligamentum flavum and can lead to myelopathy due to compression of the posterior cord. CLF leads to compression of the posterior spinal cord, potentially resulting in myelopathy and subsequent neurological impairments. The cervical and lumbar spine segments are the two most frequently affected areas, while the thoracic spine is rarely involved.

Aim : This article discusses the epidemiology, clinical presentation, radiologic features, therapeutic strategies, and prognosis of calcification of the ligamentum flavum

Methods Results : A 62-year-old hypertensive woman presented with dorsal pain radiating to the intercostal region, associated with paresthesia and intermittent spinal claudication, evolving over the past month. On neurological examination, the patient exhibited paraparesis with distal predominance, along with exaggerated deep tendon reflexes. Pyramidal syndrome was noted, including a positive bilateral Babinski sign. Sensory examination was unremarkable. A computed tomography (CT) scan revealed hypertrophy of the calcified ligamentum flavum with narrowing of the spinal canal at the D9-D10 level, causing posterior spinal cord compression. The patient underwent posterior decompression with D9-D10 laminectomy. Intraoperatively, hypertrophied and calcified ligamentum flavum, which was highly adherent to a very thin dura mater, was observed. The postoperative course was uneventful, with significant regression of numbness and muscle weakness

Conclusion : Calcification of the ligamentum flavum is a significant cause of spinal stenosis and related neurological symptoms. Early recognition and appropriate management are crucial for preventing long-term complications. Further research is needed to understand the underlying mechanisms and to explore effective treatment strategies.

P32 -tuberculosis of the atlas

Myriam Naceur, S.Farhat, M.Inoubli , S. Abdelhafidh , A. Belhadj , K.Ghedira , S.Bouali , A. Bouhoula , K. Abderahhmen , I.Ben Said , J.Kallel
Neurosurgery , Radiology

Abstract :

Background : Pott's disease is still a common disease in countries with poor socio-economic conditions. It continues to pose a public health problem since it affects a young population in full activity, which shows the role of prevention. The dorsolumbar spine is the preferred site. Tuberculosis in the cervico-occipital hinge is very rare. It is estimated to occur in only 1% of spinal locations.

Aim : We report the case of a 63-year old female treated in the neurosurgery department at the Mongi Ben Hamida National Institute of Neurology in Tunisia.

Methods Results : Our patient was without any particular pathological history and without any notion of tuberculosis infection. The patient consulted for mechanical cervical pains evolving for 1 year, of progressive aggravation, with trismus, torticoli and dysphagia to solids. The clinical examination revealed a significant painful stiffness of the cervical spine and the neurological examination was normal without any sign of spinal cord injury, fever or alteration of the general condition.

The biological workup showed a non-specific inflammatory syndrome.

The CT scan of the cervical spine showed an osteolytic lesion of the anterior arch of C1 lateralized to the left with rupture of the cortical bone. MRI showed a lesion that fixed the contrast, rounded, left paravertebral, extended to the adjacent soft tissues respecting the aerodigestive carrefour, whose appearance suggests a tumoral process originating from the paravertebral soft tissues, invading the anterior arch of C1, or an infectious process with common or specific germs.

Sputum and urine were negative for BK. TST was negative. Wright serology and card-test negative.

Needle biopsy was not possible because of the invincible trismus, and the lesion was biopsied surgically. Anatomopathological examination confirmed the tubercular nature of the lesion.

Under anti-tuberculosis treatment, the evolution was favorable, both clinically and biologically.

Conclusion : Pott's disease of the upper cervical spine is a very rare condition. The diagnosis is usually made late at the stage of neurological deficit. It should be suspected in the presence of chronic torticoli associated with prevertebral thickening and C1C2 lysis. MRI is of great diagnostic value and allows monitoring of treated forms. The diagnosis must be made early ; it is confirmed on histo-bacteriological grounds but sometimes retained on presumptive elements. Medical treatment based on anti-tuberculosis antibiotic therapy and immobilization of the cervical spine must be instituted as a first-line

treatment despite the extent of bone lysis. Surgical treatment should be reserved for cases with diagnostic doubt, or in the presence of severe nerve compression or progressive worsening with or without respiratory disorders, or in cases of documented dynamic instability. The evolution under treatment is usually favorable.

P33 -Two Cases of Intradural Lumbar Disc Herniation: Clinical Presentation and Analysis

Fatma Ben atig,Bourgou Malek ,Belhajali Kerima,Hermassi Aziz,Belhadj Ala,Bouali Sofien,Kallel Jalel, Fatma Ben atig
neurosurgery

Abstract :

Background : "Intradural disc herniation is a rare complication of lumbar disc pathology. The first case was documented by Dandy in 1942. Since then, and until 1997, fewer than 100 additional cases have been reported. Clinically, it most commonly presents as cauda equina syndrome or as a mono- or bi-radicular deficit, often with neurological impairments. Diagnosis is confirmed through MRI imaging. The surgical prognosis is uncertain, as more than a third of patients experience incomplete clinical recovery.

Aim : We report two cases treated in the neurosurgery department of the National Institute of Tunis. A literature review will also be conducted to examine the clinical aspects, evaluate the role of imaging, and explore the pathogenesis.

Methods Results : Case 1: A 42-year-old man presented with right-sided S1 lumbosciatica. Lumbar MRI revealed an extruded herniated disc at the L5-S1 level, compressing the cauda equina roots. A partial laminectomy of L5 and S1 exposed disc material reaching the posterior aspect of the dura mater, which was found to be open.

Case 2: A 36-year-old man had a seven-year history of bilateral L5 lumbosciatica with urinary urgency. Lumbar MRI identified an upwardly migrating medial disc herniation at the L3-L4 level. A laminectomy of L3 and L4 was performed, and a sequestered disc fragment was removed from the anterior surface of the dura mater with cerebrospinal fluid (CSF) leakage. The postoperative course was uneventful."

Conclusion : Intradural lumbar disc herniation is an uncommon and challenging condition, often presenting with severe neurological symptoms such as cauda equina syndrome or radiculopathy. Due to its rarity, preoperative diagnosis remains difficult, with MRI being the key diagnostic tool. Surgical intervention is the primary treatment, but the prognosis is variable, with a significant proportion of patients experiencing incomplete recovery. The two cases presented here highlight the complexity of managing this condition and underscore the importance of timely diagnosis and individualized surgical treatment. Further studies and case reports are essential to better understand the pathophysiology and improve patient outcomes in this rare pathology.

P34 -Conservative management in odontoid type II fracture: case report

BOUCHEKOURA Hamza (MD), KHELIFA Adel (MD) , Aichaoui Fayçal (MD, PhD) , MORSLI Abdelhalim (MD, PhD)
Department of Neurosurgery, Mohamed Lamine Debaghine University Hospital (BEO), Algiers, Algeria

Abstract :

Background : Odontoid fractures represent the most prevalent form of cervical spine fracture in the elderly population. It is widely accepted that type II odontoid fractures are considered unstable, and surgical stabilization presents the most suitable management option. Here, we present the limited indications for conservative treatment for this type of fracture.

Aim : This study aims to clarify a rare but existing less invasive option for the management of type II odontoid fractures.

Methods Results : We present the case of a 57-year-old woman who presented with neck pain following a traffic accident. She was neurologically intact. Computed tomography (CT) of the cervical spine revealed a Type II odontoid fracture. Strict criteria were adopted, and given the patient's extensive medical comorbidities, non-operative management with a Halo jacket was elected. The patient underwent serial imaging and routine clinical follow-up until complete consolidation of her lesion.

Conclusion : This case highlights the importance of serial surveillance imaging and demonstrates that complete arthrodesis can be achieved with prolonged cervical immobilization alone if Müller's criteria are respected.

P35 -Double-approach treatment of acute neurological cypho-scoliosis

Yahya Guermazi, Habib Hadjtaieb , Achraf Kharrat , Kamel Ayedi ,Hassib Keskes
Orthopedic Surgery and Traymatology

Abstract :

Background : Malformative scoliosis often combines skin anomalies, bone malformations and spinal cord malformations. Among the latter, diastematomyelia is a rare anomaly, defined according to Hori as the existence on a variable number of spinal segments of 2 medullary cords separated or not by a bony, cartilaginous or simply fibrous septum. It is characterized by the diversity of its clinical and radiological presentation, and consequently by the diversity of its therapeutic approach.

Aim : -Identify the particularities of congenital cypho-scoliosis linked to diastematomyelia. -Use of the double anterior and posterior approach in the management of congenital cypho-scoliosis.

Methods Results : This is a case of congenital cypho-scoliosis in a girl who consulted us at the age of 12 for a progressive loss of walking ability. Neurological examination revealed decreased muscle strength, sharp osteotendinous reflexes on the left and decreased reflexes on the right, and a Babinski sign on the left. Spinal X-rays showed severe dorsolumbar angular kyphosis with right convex scoliosis accompanied by vertebral and costal malformations, spina bifida, oblique pelvis and sacroiliac dysgenesis. CT scan showed Bollini type 2 sacral agenesis. MRI revealed a distal duplication of the medulla with no inferior attachment and no spur.

Treatment consisted of halo traction for 2 months, followed by corrective casts for 4 months, enabling neurological recovery and partial correction of the scoliosis. The operative program consisted of two stages:

- anterior release by left thoraco-phrenotomy with placement of a rib graft.
- posterior instrumentation extending from T2 to L3.

Postoperative management was straightforward. X-rays showed clear correction of kyphosis and scoliosis, but a trunk lateralized to the right with an oblique pelvis. At ten years of age, the patient's everyday life is unimpaired, her trunk is balanced overall and she has no neurological signs.

Conclusion : Therapeutic attitudes to kypho-scoliosis associated with diastematomyelia are highly controversial.

Our therapeutic approach focused on double-approach treatment of the kyphosis, which enabled us to stabilize the spine with circumferential arthrodesis and protect the patient from a recurrence of neurological signs.

Preparing for this surgery with traction and corrective plaster casts is an essential step.

P36 -Fracture of the odontoid process associated with spina bifida of the atlas, about one case

ferrahe sofiane - chaa amine-benabdelah amina-daoud souad, Souad Daoud
neurosergery-chu oran

Abstract :

Background : Odontoid fractures are neurosurgical lesions, accounting for 10 to 15% of cervical spine fractures, which are difficult to manage

Aim : management of fractures of the upper cervical spine associated with bone deformities

Methods Results : Reporting to us the case of a 65-year-old woman; victim of a traffic accident with a fractured odontoid. The clinical examination was bordering on normal except for the hyper algesic neck pain with bruising on the posterior aspect of the neck. The neuro-radiological workup was in favor of a fracture of the odontoid process with an anterior displacement (OBAV) in an osteoarthritis spine. The indication for a posterior lacing (C1 –C2) has been made. Intraoperative, C1 posterior arch spina bifida was discovered which was not detected on radiological examinations. Our course of action was to make a lacing as follows: used two threads; make two loops each in a semi-arc then tie the two threads under the thorn machine of C2. The postoperative clinical and radiological consequences very favorable at 6 months.

Conclusion : The surgical management of odontoid fractures is well codified, sometimes difficult because of lesions or associated malformations of the spine

P37 -INJURY TO THE LOWER CERVICAL SPINE IN ADULTS: about a series of 116 cases

daoud souad, sofiane ferrah
neurosurgery

Abstract :

Background : Vertèbro-medullary trauma (VMT) is a major public health problem. When they
involve the cervical spine, these injuries can be life threatening

Aim : show the frequency of vertebro-medullary trauma, and discuss how to manage this type of injury.

Methods Results : METHODOLOGY

our work is a retrospective, descriptive study of 116 cases of lower cervical spine trauma treated in our neurosurgery department of the university hospital center of Oran – Algeria; from January 2016 to December 2021

RSULTS

*The average age of our patients is 31 years old, with a clear male predominance, in fact 86.3% of our patients are male.

*The etiologies were dominated by accidents on the public highway (66.7%), followed by diving accidents (15.7%), falls (11.8%) then sports accidents, work accidents and intentional blows and injuries (2 %).

*39.2%% of our patients had a normal neurological examination and only accused a spinal syndrome, 60.8% of patients presented neurological disorders. We found that 60.1% of patients admitted with neurological disorders were classified ASIA D, and the rest were distributed almost equally between ASIA C, B and A respectively 16.1%, 9.6% and 12.9%.

*Only 73% benefited from magnetic resonance imaging.

*Dislocations and fractures dislocations represent the most frequent lesions (53.2%).

*The anterior approach was used in 100 patients, and the posterior approach in 16 patients.

*Neurological improvement was seen in 72.4% of cases who had neurological disorders. The most common complication in our series is decubitus pneumopathy. We deplore 5 deaths during our study, which corresponds to a mortality rate of 4.3%. All five cases were AIS A patients, who had severe neuro vegetative disorders.

Conclusion : CONCLUSION

At the end of our work, it appears that the trauma of the lower cervical spine is a frequent pathology , wich concerns the young male and whose etiology is dominated by the accidents of the public road and the
accidents of diving in shallow waters, putting at risk the functional and vital prognosis.

P38 -Localized myeloma revealed by lumbar spine trauma

wiem Boudabbous, MM. Hadhri, E.Ouni , MA. Haj Taieb, M. Darmoul.
Neurosurgery Department of Fattouma Bourguiba University Hospital.

Abstract :

Background : Post-traumatic lumbar spine fractures are common, but the diagnosis of an underlying condition such as multiple myeloma is rare. Myeloma is a hematologic malignancy characterized by the clonal proliferation of plasma cells, often associated with bone lesions.

Aim : This case report describes a traumatic lumbar fracture that led to the diagnosis of myeloma in a 55-year-old female patient.

Methods Results : A 55-year-old female patient sustained a domestic accident causing a lumbar trauma, presenting with lower back pain but without paresthesia or heaviness in the limbs. On clinical examination, there was no motor deficit in the lower limbs. A lumbar spine X-ray, followed by a CT scan, revealed an L3 fracture with a slight posterior wall displacement. The patient underwent lumbar fixation surgery and an L3 spinolaminectomy. Histopathological analysis of the tissue concluded with a diagnosis of myeloma

Conclusion : This case emphasizes the importance of considering an underlying pathological fracture in patients presenting with spinal trauma, especially in the presence of atypical fracture patterns or minimal trauma. Early diagnosis of myeloma is crucial for optimal patient management and prognosis.

P39 -Management of Combined Atlantoaxial Dislocation and Odontoid Process Fracture: A Case Report with One-Year Follow-Up

Mohamed Ghorbel, Fatma Kolsi, Khalil Ayadi, Ahmed Amine Daoud, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : The combination of atlantoaxial joint dislocation and odontoid process fracture is a rare spine injury. The estimated frequency is less than 2% among upper cervical spine injuries. This injury combination is serious because of the resulting instability.

Aim : The objective of this case report is to highlight the diagnostic and therapeutic challenges in managing the rare combination of atlantoaxial dislocation and odontoid process fracture. By presenting radiological findings, treatment modalities, and a one-year follow-up, the study aims to emphasize the importance of early reduction attempts, appropriate immobilization, and long-term outcomes in cases of upper cervical spine instability.

Methods Results : Materials & Methods :

We are reporting on the one-year follow-up a case that occurred in the context of a high-energy head injury. Radiological findings and treatment modalities are also discussed.

Results :

A 29 years-old patient was admitted in our department after a road accident. The neurological exam found a stiff head posture rotated to the right. However, there was no other neurological problems. On cervical spine X-rays and CT scan, there was a rotational atlantoaxial dislocation type 1 based on Fielding classification, with a right articular facet fracture of the odontoïde. The cervical MRI showed an extra-dural hematoma in front of C1-C2 with no compression and integrity of the transverse ligament.

Conservative treatment consisted of axial traction with a head tong to attempt to reduce the atlantoaxial dislocation. Despite a progressive increase in weight the joint was only partially reduced. We attempt gentle closed manipulation under scopic control. The radiological control after manipulation showed that the C1-C2 joint was reduced. The cervical spine was immobilized later using an integral neck brace during 3 months.

At the one-year follow-up, the clinical picture was stable and X-rays was satisfying. The patient had no major functional problems and dynamic X-rays showed good range of motion in flexion, extension and rotation.

Conclusion : Conclusion :

The combination of atlantoaxial joint dislocation and odontoid process fracture is a rare injury. A closed reduction of the dislocation must be attempted. Once the dislocation is treated, treatment of the odontoid fracture is determined based on its reduction and stabilisation (conservative treatment or direct screw fixation). If the reduction fails, an

open reduction must be performed through a posterior approach. However the conservative treatment may be a good alternative in case of integrity of the transverse ligament and without C1 C2 instability.

P40 -surgical managment of upper cervicacl spine trauma: a single center experience, about 33 cases

emna Elouni, Mohamed Amine Hadj Taeib, Wiem Boudabbous, Amine Trifa, Ilyes Krifa, Elkahla Ghassen, Hadher Mohamed Maher, Maamri Kais, Ben Nsir Atef, Darmoul Mahdi
department of neurosurgery

Abstract :

Background : Upper cervical spine injuries, accounting for approximately 22% of cervical spine trauma, are becoming more common.

Aim : The aim of our study is to assess the outcomes of our surgical series and compare them with findings reported in the literature.

Methods Results : In this monocentric retrospective study conducted over a thirteen-year period (June 2011–January 2024), all patients with traumatic upper cervical spine injuries who underwent surgical treatment and had a minimum follow-up of 6 months were included.T

hirty-three patients were included in the study, with a male predominance (male-to-female ratio of 1.3:1). The average age was 39 years, with a majority of young patients. The two main causes of injury were falls (48.48%) and road traffic accidents (45.45%). Clinically, cervical pain was present in all patients, with eight (24.24%) also exhibiting motor deficits. Odontoid fractures were identified in 30 patients, with 36.6% classified as Anderson Type II and 36.6% as Type III, frequently associated with C1 fractures (51.51%) and C1-C2 dislocations (33.33%).

Surgical treatment involved C1-C2 sublaminar hook placement in 10 patients, while 22 patients underwent occipitocervical fixation (31% with C0-C3-C4 fixation, 27% with C0-C2-C3 fixation, and 22% with C0-C1-C2 fixation). No anterior screw placement or approaches were used. The outcome was favorable in 29 cases, fair in 1 case, and 3 patients with severe initial injury (Glasgow Coma Scale score <8) unfortunately passed away.

Conclusion : This brief series demonstrates the effectiveness of surgical treatment for managing traumatic injuries of the upper cervical spine, showing notable pain relief with a low risk of surgical morbidity and mortality.

P41 -Anterior Sacral Meningocele in a Pediatric Patient: A Rare Cause of Recurrent Meningitis

Bouzaouache Ines, Inoubli M., Ben Khalifa A, Ben Hafsa M, Jelassi S, Dkhil I, Nagi S.
Department of Neuroradiology

Abstract :

Background : Anterior sacral meningocele (ASM) is a rare congenital anomaly resulting from herniation of the dural sac through an anterior sacral defect, often diagnosed in adulthood due to its varied clinical manifestations. In children, it can present as recurrent meningitis, which may delay diagnosis. MRI is the gold standard for identifying this malformation and guiding treatment.

Aim : To report a case of ASM in a pediatric patient with recurrent meningitis and to highlight the importance of considering ASM in the differential diagnosis of recurrent meningitis in children.

Methods Results : We present the case of a 3-year-old girl with no history of trauma, who experienced recurrent bacterial meningitis from the age of 6 months, with 3-4 episodes per year. Diagnostic workup included clinical examination, cerebrospinal fluid (CSF) transit study, cranial CT, abdominal and pelvic ultrasound, and MRI. The spinal MRI revealed a pre-sacral cystic lesion communicating with the dural sac through a wide defect. This cystic formation was associated with left sacral agenesis, confirmed by radiography and CT. No cutaneous or neuroenteric fistula was identified. The diagnosis of ASM was established, and the patient was referred for neurosurgical intervention.

Conclusion : Anterior sacral meningocele is a rare but important differential diagnosis in cases of recurrent meningitis, particularly in pediatric patients. MRI is crucial for early diagnosis, which enables timely surgical management and prevents severe complications.

P42 -Cervical Exostoses in Pediatric Patients: A Case Report of Three Cases

Ahmed Msakni, Nesrine Nessib, Rim Boussetta, Mohamed Nizar Aouinti, Mohamed Zairi, Sami Bouchoucha, Walid Saied, Mohamed Nabil Nessib
Pediatric orthopedic department

Abstract :

Background : Although osteochondromas are among the most common primary bone tumors, cervical localization is rare and presents significant diagnostic and treatment challenges. We report three pediatric cases of cervical exostoses, highlighting their varied presentations, radiological findings, and surgical outcomes.

Aim : Emphasize the importance of early diagnosis and appropriate management to prevent neurological and respiratory complications.

Methods Results : Case 1: An 11-year-old male with exostosis disease presented with right upper limb weakness. Radiological assessment, including X-rays, CT scans, and MRI, revealed an endocanal exostosis originating from the laminae of C5 and C6, compressing the spinal cord. The patient underwent posterior resection of the exostosis, laminectomy, and instrumented arthrodesis from C3 to C7 using the Vertex system. Postoperatively, he showed complete recovery of upper limb strength, with no recurrence or new symptoms on follow-up.

Case 2: A 5-year-old male with recurrent torticollis and a history of exostosis disease underwent radiological investigation, revealing a large compressive exostosis of the C2 lamina. This lesion was associated with early signs of spinal cord distress. Surgical resection of the exostosis was performed, preserving the C2 facet joints, followed by immobilization in a plaster brace. The patient experienced resolution of torticollis, and his recovery was complication-free.

Case 3: A 4-year-old male presented with otorhinolaryngological symptoms, initially attributed to an upper respiratory condition. Further evaluation, including clinical history, otorhinolaryngological examination, and CT scan, identified an osteochondroma on the anterior arch of the atlas (C1). This unusual localization led to respiratory symptoms and a delayed diagnosis. The tumor was completely resected using a transoral approach. Postoperatively, the patient had full resolution of symptoms, highlighting the need to consider cervical spine involvement in cases of persistent respiratory or ENT symptoms.

Conclusion : These three cases underscore the diverse clinical presentations of cervical exostoses in pediatric patients, from neurological deficits to respiratory and otorhinolaryngological symptoms. Early detection and surgical management are crucial to prevent permanent complications. Clinicians should maintain a high index of suspicion for cervical exostoses, particularly in patients with atypical respiratory or neurological symptoms.

P43 -Diagnosis and management of secondary painful scoliosis: a case report

Habib Hadjtaieb, Yahya Guermazi , Mohamed Ayedi , Hedi Chaabouni , Kamel Ayedi , Hassib Keskes
Orthopedic Surgery and Traymatology Department

Abstract :

Background : Secondary scoliosis is accompanied by atypical clinical and radiological signs requiring etiological investigation. We present a case of atypical secondary scoliosis with right dorsal lumbar pain and kyphosis, associated with an intramedullary tumor.

Aim : -Insistency of etiological investigation in cases of secondary scoliosis
-Need for posterior synthesis in cases involving laminectomy for tumor resection to prevent worsening of kyphotic deformity

Methods Results : A 15-year-old girl with no pathological history consulted the neuropediatrics department in sfax in early 2019 for back pain and heaviness in the lower limbs that had been evolving for 3 months. She was referred to the orthopedics department for treatment. A telemetric radiograph of the spine from the front and side showed a dorsolumbar scoliosis with double convexity (right convexity of the lumbar spine centered on L2 with a COBB angle of 51° with a left convex thoracic curve centered on D2 with a COBB angle of 49° with a thoracic kyphosis estimated at 75°). An MRI was ordered, showing an appearance compatible with a dorsolumbar spinal cord ependymoma of the myxopapillary type. The patient underwent surgery at the neurosurgery department in Monastir: she had a posterior surgical biopsy confirming the diagnosis, then after 15 days a posterior tumor resection, wide laminectomy from D7 to L1 without osteosynthesis, and a corset put on postoperatively.

3 months after the operation, the patient consulted us: worsening of spastic gait disorders, walking with small steps and widening of the sustentation polygon with the appearance of vesicosphincter disorders such as dysuria.

an X-ray was taken, showing a stable frontal deformity but worsening of the thoracic kyphosis, estimated at 90°.

Patient admitted to our department in November 2020 with 5 kg cranial halo traction, tolerated well for 1 month.

December 2020 operated by subcutaneous instrumentation for spinal distraction without arthrodesis with iliosacral screw fixation below and pedicle hook in D2 AND D4 + supra-laminar hook in D1 AND D3; with pre-bent rod connected by dominos.

After 4 years, improvement in gait disorders + vesicophincter disorders; frontal deformity stable with disappearance of kyphotic deformity.

Conclusion : Any atypical, painful scoliosis, whether dorsal left, lumbar right or with kyphosis, requires an etiological investigation. A general clinical examination, especially of the skin, and a neurological examination are vital in this investigation, in search of other signs.

Ependymoma is a spinal cord tumor requiring surgical treatment with extensive laminectomy.
Laminectomy results in significant kyphosis, requiring posterior synthesis.
We present a graftless subcutaneous synthesis montage extending from D1 to the pelvis, enabling correction of the kyphosis without approaching the surgical scar and without preventing possible revision for tumor recurrence.

P44 -Endoscopic Management of Hydrocephalus in a Pediatric Population With Myelomeningocele

Ferrah Sofiane, Daoud S , Elhamel H
Neurosurgery

Abstract :

Background : Up to 80–90% of patients have an increased incidence of hydrocephalus NNE when they have myelomeningocele.
Ventriculostomy via endoscopy is generally acknowledged as a successful substitute for ventricular shunt implantation in patients.
Aim : Treatment of hydrocephalus associated with meningocel disease: the usefulness of ventriculoscopy
Methods Results : Retrospective study , Neurosurgery Department, CHU Oran Algeria , Period: 2 years (2021 to September 2023)
There are twelve cases.
Criteria for inclusion:
Meningocele + hydrocephalus
CT and/or MRI imaging
No prior hydrocephalus management intervention
Criteria for exclusion: containing infectious disease, hemorrhaging, or tumor.
Conclusion : The interest in VCS as a strategy is confirmed by our research.
effective substitute for shunt implantation in children with obstructive hydrocephalus.
To validate our findings, large-scale prospective multicenter studies are necessary.

P45 -Low insertion of the filum terminale in the surgical management of childhood scoliosis: is it necessary to perform a prior release ?

Mohamed Zairi 1, Nessrine Nessib 2, Ameur Ben Othmen 1, Ahmed Amin Mohsni 1, Nizar Aouinti 1, Sofiene Bouali 2, Kacem Mensia 1, Sami Bouchoucha 1, Mohamed Nabil Nessib 1, Rim Boussetta 1
*1- Pediatric Orthopedic Surgery Department / 2- Neurosurgery Department**

Abstract :

Background : Surgical management of childhood scoliosis follows strict and well-codified specifications. The fear of the spinal surgeon is the occurrence of neurological complications, often irreparable. Among the risk factors for the occurrence of such complications is the low insertion of the spinal cord.

Aim : To highlight the importance of releasing the filum terminale in the lower insertion of the spinal cord during surgical management of childhood scoliosis.

Methods Results : We conducted a retrospective single-center study over a five-year period (January 2018 - December 2022). 9 files were collected. The inclusion criteria were: 1. Surgically treated scoliosis and kyphoscoliosis, 2. Age between 5 and 20 years. Exclusion criteria: 1. Incomplete files, 2. Child who had undergone orthopedic treatment, 3. Neuromuscular scoliosis. The mean age was 14 years. The mean preoperative Cobb angle was 63°. 7/9 (77%) of scolioses were thoracic. The mean immediate postoperative Cobb angle was 15°. Release of the filum terminale was performed under microscopic control in 5 patients and using magnifying loupes in 4 cases. In all cases, release preceded correction of the spinal deformity. The association of release of the filum terminale and correction of the spinal deformity was performed in seven patients in the same surgical procedure. Neurophysiological monitoring was performed in all patients. In only one case, a unilateral partial neurological deficit was noted in the motor territory of the left L4 root, which had progressed well after 6 months of rehabilitation.

Conclusion : The search for a low insertion of the spinal cord should be carried out in all children with malformative scoliosis or unusual development such as a left thoracic or right lumbar curvature. Vertebro-medullary MRI is the main complementary examination. The release of the filum terminale must precede the correction of the spinal deformity.

P46 -Minimally invasive iliosacral fixation in neuromuscular scoliosis

Mohamed Zairi 1, Ameur Ben Othmen 1, Ahmed Amin Mohsni 1, Nizar Aouinti 1, Nessrine Nessib 2, Sofiene Bouali 2, Kacem Mensia 1, Sami Bouchoucha 1, Mohamed Nabil Nessib 1, Rim Boussetta1
*1- Pediatric Orthopedic Surgery Department / 2- Neurosurgery Department**

Abstract :

Background : Neuromuscular scoliosis is due to an imbalance in the balance of muscular forces of the axial skeleton. In the absence of therapeutic management, these deformations have a reputation for rapidly evolving. The respiratory impact is then increased. Often, these patients are at high anesthetic risk, hence the usefulness of shortening the surgical time.

Aim : Highlight the contribution of minimally invasive iliosacral fixation in the management of neuromuscular scoliosis.

Methods Results : We conducted a retrospective single-center study over a six-year period (January 2018 - December 2023). 18 files were collected. Inclusion criteria: 1. Neuromuscular scoliosis, 2. Iliosacral fixation. Exclusion criteria: 1. Incomplete files, 2. Spinal arthrodesis. The mean age was 15 years. The mean preoperative Cobb angle was 75°. All scolioses were thoracolumbar. All patients underwent minimally invasive iliosacral fixation without spinal arthrodesis. The mean intraoperative bleeding was 900 cc. The mean postoperative Cobb angle was 12°. At the last follow-up, there was one patient who died from complications of decubitus.

Conclusion : Minimally invasive iliosacral fixation in the management of neuromuscular scoliosis is a reliable technique for correcting spinal deformity. It has the advantage of reducing complications of perioperative bleeding in patients often at high anesthetic risk.

P47 -Spinal Dysraphism: A 20-Year Retrospective Study of 25 Cases

Rim Baklouti, Fatma Kolsi, Ahmed Daoued, Imen Dammak, Khalil Ayedi, Med Zaher Boudawara
Neurocurgery

Abstract :

Background : Spinal dysraphism encompasses a spectrum of congenital spinal anomalies resulting from incomplete closure of the neural tube during embryonic development. . Understanding the long-term outcomes of these conditions is crucial for improving diagnosis, management, and patient care.

Aim : To review and analyze the clinical presentation, radiological findings, surgical management, and outcomes of 25 patients with spinal dysraphism treated over a 20-year period, including cases of diastematomyelia, rachischisis, dermal sinuses, meningoceles, and myelomeningoceles.

Methods Results : This retrospective study analyzed the records of 25 patients treated for spinal dysraphism at our institution over the past two decades. The cohort included 2 cases of diastematomyelia, 1 case of rachischisis, 2 cases of dermal sinuses, 11 cases of meningoceles, and 9 cases of myelomeningoceles. Clinical presentations ranged from asymptomatic lesions discovered incidentally to severe neurological deficits. Surgical intervention was performed in all cases, with the type of surgery tailored to the specific pathology. Postoperative outcomes varied according to the severity of the lesion, with most patients experiencing improved or stabilized neurological function. However, complications such as infections and cerebrospinal fluid leaks occurred in a minority of cases.

Conclusion : Spinal dysraphism remains a challenging group of conditions requiring early diagnosis and individualized management strategies. This study highlights the importance of surgical intervention in preventing further neurological decline and improving patient outcomes. Continued long-term follow-up is essential to monitor for potential complications and assess the effectiveness of treatment.

P48 -The importance of subcutaneous instrumentation in the management of secondary scoliosis in children

Yahya Guermazi, Habib Hadjtaieb , Mohamed Frikha , Hedi Chaabouni , Kamel Ayedi , Hassib Keskes
Orthopedic Surgery and Traymatology Department

Abstract :

Background : Progressive secondary scoliosis in growing children poses a therapeutic management problem. Subcutaneous instrumentation, starting at the age of 5, has a role to play in progressive scoliosis not controlled by orthopedic treatment.
Diastematomyelia is accompanied by malformative scoliosis, which may be progressive and uncontrollable by orthopedic treatment.
Despite convex anterior thoracic epihysiodesis and orthopedic treatment with a corset, scoliosis continues to evolve without neurological signs.

Aim : -Highlight the specific characteristics of congenital scoliosis associated with diastematomyelia.
-Clarify the benefits of subcutaneous instrumentation in the management of secondary scoliosis in children.

Methods Results : We present the case of a 5-year-old girl with no particular history who consulted us for a thoracic deformity that had been present for 3 years and was worsening over time.
On examination, she presented with a tuft of hair in the lumbar region, asymmetry of the pelvis, a right dorsal gibbosity and an unbalanced trunk, and a normal neurological examination.

Front and side telemetric radiographs showed right convex dorsolumbar scoliosis with a Cobb angle of 60°.
MRI confirmed the presence of complete diastematomyelia, with a bone spur at L1.
The patient benefited from a series of corrective plasters and a mulmuki corset, but without improvement.
In view of the progressive nature of the deformity, we opted for subcutaneous instrumentation with a single rod on the concave side, 3 hooks at the top and 2 screws at the bottom, with a reserve of 5 cm of rod at the bottom. This reserve allows us to follow the growth of the spine with progressive corrections, with distraction only at the bottom depending on the evolution of the deformity.

Conclusion : We propose subcutaneous instrumentation for the treatment of progressive secondary scoliosis uncontrolled by well-conducted orthopedic treatment, enabling correction of a percentage of the deformity, arresting its progressive nature and monitoring spinal growth through progressive distraction.

P49 -Transforming Pain Relief: Minimally Invasive Surgery for Severe Congenital Spinal Deformity – Two Case Reports

Mohamed Ghorbel, Fatma Kolsi, Ahmed Amine Daoud, Imen Dammak, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : Severe congenital spinal deformities often result in significant pain and functional limitations, presenting complex challenges for treatment. Minimally invasive surgery (MIS) has emerged as an effective solution, allowing targeted intervention while minimizing surgical trauma. This report discusses two cases of patients with severe spinal deformities who experienced significant pain relief and clinical improvement following MIS.

Aim : The objective of this report is to illustrate the effectiveness of minimally invasive surgery (MIS) in providing significant pain relief and functional improvement in patients with severe congenital spinal deformities. Through the analysis of two case reports, this study aims to highlight the potential of MIS as a targeted, less invasive treatment option for managing symptoms without the need for extensive deformity correction.

Methods Results : Case 1

A 67-year-old woman with a complex spinal deformity, including a dorsolumbar hemivertebra and vertebral block, presented with progressive left-sided lombocruralgia over six months, which had become unbearable. MRI demonstrated compressive hypertrophy of the ligamentum flavum at the L3-L4 level on the left side. Electromyography (EMG) confirmed L4 radiculopathy. The patient underwent a minimally invasive left-sided L3-L4 hemilaminectomy with resection of the hypertrophied ligamentum flavum. Postoperative recovery was uneventful, with significant improvement in clinical symptoms.

Case 2

A 29-year-old male presented with bilateral L5-predominant right-sided lombosciatica, which was disabling and resistant to conservative treatment. Clinical examination revealed no sensory or motor deficits. MRI revealed a large L4-L5 disc herniation with associated dorsolumbar scoliosis. The patient underwent a bilateral L4 hemilaminectomy and excision of the L4-L5 disc herniation. Postoperative recovery was favorable, with complete resolution of sciatica.

Conclusion : These cases demonstrate the efficacy of MIS in relieving symptoms in patients with complex spinal deformities. By addressing the specific site of pathology without directly altering the deformity itself, MIS offers a valuable approach for improving clinical outcomes. MIS techniques can provide significant pain relief while avoiding the morbidity associated with more invasive procedures aimed at correcting the deformity

P50 -A Colo-Rectal Cancer spreading strictly to the spine without other secondary localizations: a case report

Amal Benbelgacem, Ahmed Maatoug, Daoud Hatem, Marouen Taallah, Brahim Kammoun, Mohamed Zaher Boudawara
Department of neurosurgery, Habib Bourguiba UH / Sfax /Tunisia

Abstract :

Background : As an origin of spinal matastases, Colo-Rectal Cancer (CRC) ranks sixth after prostate, breast, lung, kidney and thyroid neoplasms.
It is well known that in the case of CRC, the most common target sites for metastatic spread are the liver and lungs. Skeletal involvement is also relatively common , but it is usually associated with distant metastases in other organs such as the liver or lungs.
Aim : We report a rare case of thoracic spinal cord compression syndrome revealing a previously asymptomatic sigmoid colon neoplasm with no other secondary localization.
Methods Results : A 68-year-old man, heavy smoker, with no pathological medical history, presented with progressive heaviness of the lower limbs for over a month, associated with intense back pain. Examination revealed spinal cord compression syndrome with flaccid paraplegia, spinothalamic and posterior medullary syndromes. MRI of the spinal cord showed an extradural lesion located at T6, T7, T8 of probably bony origin with associated focal bony lesions. Emergency surgery was proposed after patient consent, mainly to decompress and establish histological diagnosis. He underwent a 3-level laminectomy and macroscopically incomplete removal of a mass infiltrating bone and muscle. Postoperatively, the patient was referred for motor rehabilitation. Anapath examination concluded that the secondary location of an adenocarcinoma was compatible with a colonic origin.
Our patient was then investigated by abdominal CT scan, which revealed a voluminous malignant tumour of the sigmoid colon. There were no visceral metastases.
Finally, he was referred to radiotherapy.
Conclusion : Metastatic CRC is aggressive, with a low survival rate and a high recurrence rate, making surgery palliative and generally performed to relieve symptoms rather than to ensure survival.
In the case of spinal metastases, spinal cord compression is of particular concern, as it can lead to irreversible disorders and impair quality of life.

P51 -A rare case of a conus medullaris neurenteric cyst

Firas Sliti, A. Slimane, Z. Ouelha, A. Belhadj, A. Hermassi, K. Ghedira, S. Bouali , K. Abderahmen , A. Bouhoula, I. Ben Said, J. Kallel
Neurosurgery

Abstract :

Background : Neurenteric cysts are very rare lesions, accounting for approximately 1% of spinal axis tumours. These rare tumours result from inappropriate partitioning of the embryonic notochordal plate and presumptive endoderm during the third week of human development. When present, they are usually intradural extramedullary, located most Often at the thoracic level and ventral to the spinal cord.

Aim : A case report

Methods Results : We describe the case of a 35-year-old female presenting with progressive worsening of lower back pain over 12 months. The patient described the pain as worse at night, disturbing sleep, and perigenital numbness. She denied any sciatica, leg weakness, or bowel dysfunction. On examination, apart from tenderness in the right L5/S1 facet region on palpation, the rest of the examination was normal.

On imaging, a non-contrast-enhancing intradural lesion at the level of conus medullaris was observed. The lesion was hyperintense on T2- weighted imaging consistent with benign spinal lesions such as dermoid, ependymoma, meningioma, schwannoma. The patient opted for surgical management with intraoperative neuro monitoring.

Intra-operative findings revealed a cystic collection with a firm nodule adherent to the conus medullaris. After excision, the tumour was examined by the histopathology lab which confirmed the diagnosis of neurenteric cyst. Postoperatively, the patient did very well with no obvious deficit or neurological impairment.

Conclusion : Neurenteric cysts are rare spinal lesions typically located ventral to the cord due to the embryonic defect of notochord splitting or persistence of the neurenteric canal. This is an extremely rare case and also highlights the importance of sending intra-operative samples for rapid histopathology diagnosis and sparing unnecessary dissection of high-risk areas in the context of a benign congenital lesion.

P52 -A Rare Presentation of Neuromyelitis Optica: When Autoimmune Disease Mimics a Spinal Cord Tumor

Hatem Daoud, Ahmed Maatoug , Rim Baklouti , Walid Raddaoui , Brahim Kmmoun , Mohamed Zaher Boudawara
Neurosurgery department

Abstract :

Background : Neuromyelitis Optica Disorder is a chronic, autoimmune condition primarily affecting the central nervous system, particularly the optic nerves and spinal cord. It is characterized by severe inflammation and demyelination, leading to devastating neurological symptoms such as blindness and paralysis. One of the rare but significant diagnostic challenges is when NMOSD lesions in the spinal cord mimic a spinal cord tumor. This misdiagnosis can lead to inappropriate treatments, including unnecessary surgery, further complicating patient outcomes.

Aim : This work delves into the pathophysiology, imaging characteristics, and treatment of NMOSD when it mimics spinal tumors

Methods Results : A 44-year-old female presents with a 2-month history of progressively worsening back pain, bilateral lower limb heaviness, and paresthesias. Over the past 10 days, she has developed urinary and fecal incontinence. She reports gait disturbances, primarily left-sided, requiring unilateral assistance. Physical examination reveals spastic monoparesis of the left lower limb, muscle atrophy, and hypoesthesia in the right lower limb. Deep tendon reflexes are brisk bilaterally, with a positive Babinski sign on the left, and a sensory level noted at T4. The clinical presentation is suggestive of a spinal cord compression. Spinal MRI performed showing an extensive intramedullary lesion from C6 to T5 with isointensity on T1-weighted images and hyperintensity on T2-weighted images, associated with spinal cord edema and heterogeneous, moderate contrast enhancement after Gadolinium injection. This lesion contains two polar syringomyelic cystic cavities. Given the clinical presentation, the diagnosis of a spinal cord tumor was considered; however, the radiological findings were not typical, leading to the consideration of an inflammatory or immunological cause. Further biological and immunological testing revealed positive anti-NMO antibodies, confirming the diagnosis of Neuromyelitis Optica (NMO).

Conclusion : NMOSD can occasionally mimic spinal tumors due to the mass-like effects of longitudinally extensive lesions. This can lead to delayed diagnosis, unnecessary invasive procedures, and potentially worse outcomes. Clinicians should be aware of the potential for NMOSD to present in this manner and use advanced imaging, serological testing, and careful clinical judgment to avoid misdiagnosis. Early diagnosis and treatment are critical to improving patient outcomes and preventing long-term neurological damage.

P53 -Abstract : when to stop operating Vertebral Hydatid Cyst ? about 10 cases and revu of litterature

Majdouline barkache, R.ben fredj ,H.amine, C.Mohamed, M.ben messoud, K.Somrani, Ch.abdilleh , H.ben selma, A.maliki, I.ksira
hopital universitaire sahloul

Abstract :

Background : Vertebral hydatid disease, caused by the larval stage of Echinococcus species, is a rare but serious form of hydatid infection.
It has a high risk of recurrence even after treatment due to the difficulty in complete surgical removal and the infiltrative nature of the cysts.
Aim : This study report 10 cases with recurrent vertebral hydatid disease, the challenges in management, and long-term outcomes.
Methods Results : Once in the spine, the disease is difficult to treat due to the infiltrative growth of the cysts into the vertebral bodies, which compromises structural integrity and compresses neural structures.
Recurrence rates for spinal hydatid disease are high, often exceeding 30-40%, particularly if complete cyst removal is not feasible during the initial surgery. Factors contributing to recurrence include:Incomplete surgical excision/ Invasive nature of cysts /Latent cysts/
The management of recurrent vertebral hydatid disease is challenging due to the limited treatment options.
Despite aggressive treatment, the risk of recurrence remains high. Long-term follow-up with regular imaging is essential to detect early signs of recurrence and plan timely interventions.
Conclusion : Early diagnosis of vertebral hydatid cyst and multidisciplinary management are crucial to improving patient outcomes, given the complexity of the disease and its tendency to relapse.

P54 -Aneurysmal Bone Cyst of the Thoracic Spine: Case Report and review of litterature

Majdouline Barkache, R.Ben fredj , O.Hattab, M.chabaane, M.ben Messoud, K.Somrani, ch.abdelileh, H.ben selma, A.maliki, K.iadh
service de neurochirugie sahloul

Abstract :

Background : An aneurysmal bone cyst (ABC) is a benign but locally aggressive bone lesion characterized by blood-filled spaces separated by fibrous septa. Though it commonly affects the long bones and the spine, ABCs of the thoracic spine are relatively rare.

we report a case of 25 year old female with an An aneurysmal bone cyst admitted in our departement .

Aim : This case report outlines the presentation, diagnosis, treatment, and outcome of a patient with an ABC in the thoracic spine.

then a revu of litterature

Methods Results : Case presentation

25-year-old female presented with progressively worsening mid-back pain for 3 months. The pain was initially intermittent but became constant and severe. She also reported recent onset of weakness in her lower extremities, difficulty walking and urinary retention. Physical examination revealed muscle weakness (3/5) in both lower extremities and pyramidal syndrome

MRI demonstrated a well-defined, multiloculated, expansile mass within the T12 vertebra, with multiple fluid-fluid levels characteristic of an aneurysmal bone cyst. CT Scan .The patient underwent: Posterior decompression via laminectomy at T11-T12 to relieve pressure on the spinal cord , excision of the cystic lesion at T12 and Spinal stabilization.

Evolution :The patient experienced gradual improvement in lower limb strength

Conclusion : Aneurysmal bone cysts of the thoracic spine are rare but potentially serious due to their effects on the spinal cord and adjacent structures. Early diagnosis and prompt surgical intervention are crucial for preventing permanent neurological deficits. surgical decompression, and spinal stabilization offers the best chance for a favorable outcome

P55 -Arachnoid cysts uncommon causes of spinal cord compression, about 2 cases and revu of litterature

Majdouline Barkache, R.ben fredj, A.hmida, M.chabaane, M.ben Messoud, K.Somrani, ch.abdelileh, H.ben selma, A.maliki, K.iadh
service de neurochirugie sahloul

Abstract :

Background : Intradural Arachnoid Cyst of the spine is a rare lesion. It poses a triple problem, that of its origin, that of its diagnosis and that of its treatment.
we report 2 cases of spinal Arachnoid cysts operated in our department .

Aim : study the clinical expression , treatment and evolution of spinal Arachnoid cysts

Methods Results : Case report :

Case 1:

a 48-year-old patient who consulted for back pain with walking problems since 3 months. The examination revealed a pyramidal syndrome. MRI revealed a posterior intradural collection compressing the dorsal cord. The postoperative course was simple with a good clinical outcome.

Case 2 :

A 61-year-old patient who consulted foback pain with intermittent numbness and tingling in the lower extremities for 6 months. MRI Spine : Demonstrated a well-circumscribed, fluid-filled cyst located in the dorsal aspect of the thoracic spine at the T8-T9 , a cyst fenestration done, The patient's recovery was uneventful.

Conclusion : Spinal arachnoid cysts constitute a separate entity in the etiologies of spinal cord compressions, both by their pathogenetic hypotheses and by their clinical expression, their therapeutic modalities and their evolution.

P56 -Central nervous system infection revealing a dermal sinus

Myriam Naceur, S. Farhat , M. Inoubli , A. Belhadj, A.Slimane, K. Ghedira, S.Bouali, A. Bouhoula, K.Abderrahmen , I.Ben Said , J.Kallel
Neurosurgery , Radiology

Abstract :

Background : The dermal sinus is a congenital dysraphic anomaly that corresponds clinically to the presence of a punctiform cutaneous orifice of the median and posterior para median raphe from the occipital region to the sacrum but often from the lumbosacral region. The main complication of dermal sinus is central nervous system infection.

Aim : We report the cases of 3 patients treated in the neurosurgical department at the Mongi Ben Hamida National Institute of Neurology in Tunisia, in whom the diagnosis of dermal sinus was made only after a severe central nervous system infection.

Methods Results : They were two boys and one girl, aged 11 months, 3 years and 11 months, respectively. Cerebrospinal MRI was performed in two cases for a neurological deficit in a febrile context, and in the third case for a recurrent purulent meningitis. In all three cases, it was a lumbar intradural abscess associated with a dermal sinus. The abscess was evacuated with excision of the dermal sinus. A dermoid cyst was noted in two cases ; it sexcision was performed during the same operative procedure. Two children had sequelae.

The dermal sinus is a congenital dysraphic lesion that accounts for 10% of closedspinal dysraphisms. It is a thin epithelialized pertus, most often in the lumbosacral region, which extends between the skin and the meninges or the spinal cord tissue itself. It is usually revealed before the fifth year of life by infectious complications.

These complications may include recurrent meningitis or meningitis with unusual germs(gram-negativebacilli, staphylococcus, anaerobes), or a more serious picture of compression of the roots of the cauda equina.

These infectious complications are the most serious aspect of non-operated dermal sinuses because they can lead to serious neurological sequelae, in particular urological disorders and/or paraplegia, which will require long-term multidisciplinarymanagement and can compromise the functional prognosis of these children.

MRI is the radiological examination of choice. It allows visualization of the sinus pathway, which appears in T1 hypo signal within the hyper signal of the subcutaneous fat. MRI also allows the search for other associated dysraphiclesions such as a low attached cord in 70% of cases, a dermoid or epidermoid cyst in 50% of cases, or a lipoma or fibrolipoma of the terminal filum.

In addition to prolonged antibiotic therapy, all three patients in our series had evacuation of the intradural abscess withen bloc excision of the sinus.

This excision is made through an elliptical skin incision centered on the sinus and then the fibrous path is continued and dissected from proximal to the dural plane. This

technique has the advantage of reducing the risk of infection and guaranteeing complete excision of the dermal sinus.

Conclusion : The severity of neurological sequelae due to infectious complications of the dermal sinus makes its detection the responsibility of any physician examining a child and indicates its urgent prophylactic surgery.

P57 -Cervical Spinal Cord Compression as a manifestation of Neurofibromatosis Type 1

Walid Raddaoui, Khalil Ayedi, Fatma Kolsi, Brahim Kammoun, MZ. Boudawara
Neurosurgery department of Sfax

Abstract :

Background : Type 1 neurofibromatosis is a neurocutaneous condition with an autosomal dominant pattern of inheritance. This congenital disease is characterized by a wide spectrum of clinical manifestations and degree of severity.

Aim : To highlight the clinical presentation and management of cervical spinal cord compression as a complication of Type 1 Neurofibromatosis, emphasizing the importance of early diagnosis and intervention in improving patient outcomes.

Methods Results : An 18-year-old boy consulted the emergency department for walking disturbances developing for 7 days. The patient had tetra paresis which was predominant in the lower limbs. An Upper motor neuron syndrome was objected. There was no sensitive deficit. Cranial nerves were intact. The patient had multiple café au lait stains. Multiples nodes were palpable in the 4 limbs and in the thorax. Ophthalmic examination was normal. There were no similar cases within the family members. A type 1 neurofibromatosis was diagnosed. The patient had an urgent spinal MRI which revealed an abnormality of all the spinal nerves with cervical spinal compression. The patient underwent an urgent postero-lateral decompression of the cervical spine. The motor deficit improved after the surgery. Pathological examination was in favor of neurofibromatosis.

Conclusion : Type 1 neurofibromatosis is a common cancer predisposition syndrome. Affected individuals require lifelong surveillance and often suffer progressive disfigurement due to cutaneous neurofibromas.

P58 -Challenges and Outcomes in the Management of Rare Primary Spinal Tumors: A 35-Year Retrospective Study

Mohamed Ghorbel, Ghassen Bel Kahla, Ahmed Amine Daoud, Mehdi Darmoul
Neurosugery Department

Abstract :

Background : Primary spinal tumors are relatively rare, and their often subtle and non-specific symptoms contribute to diagnostic delays and sometimes therapeutic failures.

Aim : The objective of this study is to evaluate the epidemiological, clinical, radiological, and therapeutic characteristics of rare primary spinal tumors over a 35-year period, and to identify the challenges and outcomes associated with their diagnosis and management. This analysis aims to highlight the importance of early, multidisciplinary approaches in optimizing treatment strategies and improving patient prognosis.

Methods Results : Materials and Methods: This retrospective study examines 31 cases of primary bone tumors of the spine, collected over a 35-year period at the Neurosurgery Department of the University Hospital of Monastir. The aim is to analyze the epidemiological, clinical, radiological, and therapeutic characteristics of these tumors and to outline a strategy for their diagnosis and management.

Results: The average age of patients was 51.3 years, with a male predominance. The average time to diagnosis was one year. The most common initial symptom was progressive limb heaviness, reported by 65% of patients. Clinical examination revealed spinal syndrome in 80% of cases, motor deficits in 71%, sensory disturbances in 52%, and sphincter dysfunction in 91% of patients. The thoracic spine was the most affected region (51%). The posterior approach was the most frequently used surgical technique, with combined approaches performed in only two cases. Complete resection was achieved in only two cases of benign tumors, and osteosynthesis was necessary in 6 instances. Malignant tumors were more prevalent (85%), with multiple myeloma being the most common.

All patients with malignant tumors underwent additional treatment, including radiotherapy and/or chemotherapy. The average follow-up period was 21 months, with short-term improvement in symptoms observed in 34% of cases. The median survival for patients with malignant tumors was 9 months.

Conclusion : The severity of primary vertebral tumors lies not only in their pathological nature but also in the potential for irreversible spinal cord compression. This underscores the importance of early, multidisciplinary diagnosis and management.

P59 -Chondrosarcoma of the Cervical Spine: A Case Report

Firas Sliti, A. Hermassi, A. Slimane, Z. Ouelha, A. Belhadj, K. Ghedira, S. Bouali , K. Abderahmen , A. Bouhoula, I. Ben Said, J. Kallel
Neurosurgery

Abstract :

Background : Chondrosarcoma is the third most common primary malignant bone tumor. Less than 10% occur in the mobile spine.

Aim : A case report about one patient

Methods Results : A 50-year-old male was referred to the clinic because of a progressively growing right lateral cervical mass. Local pain was the only symptom described. MRI showed a right supraclavicular tumor located behind the sternocleidomastoid muscle, which penetrated through the C4-C5 and C5-C6 junction foramen. Radiological images suggested a neural tumor and malignant transformation was not discarded.

A right lateral cervical approach was initially performed to achieve subtotal resection. Histological results concluded a grade 2 chondrosarcoma. Post-surgical MRI and CT showed resection of the lateral portion persisting the medial component concerning the C4, CS, and C6 vertebral bodies (which were remodeled but without signs of instability). The vertebral artery and the nerve roots at those levels were not visible; nevertheless, the artery was permeable. A second-time procedure was scheduled to perform an anterior approach. The vertebral body invasive component was resected. No instrumentation was added since no instability was observed. Resection was incomplete since left neurophysiological intraoperative potentials were transiently lost whenever right carotid artery was displaced to improve resection. Local pain improved after resection. 6 month-follow-up MRI showed stability of the residual tumor. The risk of neurological deficit to achieve a total resection, as well as the histological diagnosis of grade 2 chondrosarcoma led to consider adjuvant radiotherapy to complete the treatment. No fusion was considered since biomechanical stability was confirmed with a dynamic x-ray

Conclusion : The lumbar spine is the most affected segment in chondrosarcomas. The cervical spine is involved in less than 10% of cases. Surgical en bloc resection with negative margins is associated with improved local control and survival. Adjuvant-focused radiation is taking an increasing role in high-grade lesions control.

P60 -Clinical presentation and long-term outcomes of microsurgical approach in Intramedullary Spinal Cavernoma : a cohort of 7 patients

Benbelgacem A, Maatoug A, Daoud H, Abdelhedi A, Boudawara MZ
Department of neurosurgery of Sfax

Abstract :

Background : Intramedullary spinal cavernoma (ISC) is a rare entity among spinal vascular pathologies. The purpose of the present study was to examine the influence of clinical presentation, localization, and different surgical approaches on long-term outcome in patients treated for ISC.

Aim : The authors performed a retrospective single-center study of 7 cases of ISC treated microsurgically over the past 28 years. Analyzed factors included preoperative clinical history, microsurgical strategies, neurological outcome, and the occurrence of postoperative spinal ataxia.

Methods Results : We have collated 7 cases of intramedullary cavernoma managed in the Sfax neurosurgery department between 1990 and 2014. Five men and two women were involved, with ages ranging from 33 to 83 years (median age 54.5 years). The dominant symptomatology was motor disorders essentially of abrupt onset. The degree of disability ranged from pauciously symptomatic patients (2 cases) to severely affected patients (5 cases).Spinal cord magnetic resonance imaging (MRI) was diagnostic, showing intramedullary lesions of heterogeneous signal, predominantly T1 and T2 hypo signal, not enhanced after injection of contrast medium, containing extensive T2* hyposignal signal abnormalities (hemorrhagic character). The location was cervical in 1 case, dorsal in 3 and lumbar (terminal cone) in 3.

Preoperatively; 18.8% of patients consulted for progressive decline in neurological function. While 33.3% of patients suffered repetitive episodes of acute neurological deterioration over months to years. In 16.7% of cases, We had a sudden onset of a severe neurological deficit.

Surgical excision was performed in five cases. Partial recovery was achieved in four cases, while stabilization was noted in the others.

On long-term follow-up 70.8% described no change in neurological function , 6.3% suffered from a decline and 22.9% improved neurologically.

The rate of spinal ataxia related to surgical approach was 16,7% .

Conclusion : Postoperative neurological function in ISC patients is determined by the preoperative neurological status. On long-term follow-up after microsurgical treatment, 93.7% of patients presented with a stable or improved condition (ASIA grade); thus, definite microsurgical treatment should be considered as long as patients present with only mild symptoms after the diagnosis of symptomatic ISC.

P61 -Dermal sinus with extensive intramedullary expansion and an infected spinal immature teratoma

Imen Dammak, Fatma Kolsi, Ines Cherif, Mohamed Ghorbel, Brahim Kammoun ,Khalil ayedi, Med Zaher Boudawara
Neursurgery

Abstract :

Background : Introduction:
The occurrence of intramedullary immature teratoma is a rare and complex anomaly. Accounting for only 0.2 to 0.5% of all spinal tumors, this type of tumor is unique in that it is composed of cells derived from the three germ layers: ectoderm, endoderm, and mesoderm. Due to the rarity of these tumors, it is crucial to thoroughly examine each individual case to develop accurate diagnostic and therapeutic strategies..

Aim : This abstract aims to explore the clinical presentation, diagnostic challenges, and treatment approaches for intramedullary immature teratomas, a rare spinal tumor comprising cells from all three germ layers. By examining individual cases, we seek to contribute to the understanding of this unique tumor type and enhance the development of effective diagnostic and therapeutic strategies.

Methods Results : We present a case of an infant with recurrent meningitis. Physical examination revealed signs of hypotrophy, spastic paraparesis, and a lumbosacral dimple. MRI showed a complex lesion consisting of both solid and cystic components, extending from L1 to S1 with Dermal sinus. He underwent surgery with complete excision, and histopathological examination confirmed a Grade 1 immature teratoma.

A 2-year-old child with a history of two episodes of meningitis at the ages of 9 and 18 months, both caused by the same pathogen and treated with antibiotics, showed good recovery. At the age of 2, following a third recurrence of meningitis, the child presented with heaviness in both lower limbs and frequent falls. On examination the child presented a spastic paraparesis. The MRI

Spinal magnetic resonance imaging identified a lesion extending from L1 to S1 , comprising both solid and cystic components suggestive of a lumbar abscess. Additionally, there was spinal dysraphism suggestive of spina bifida occulta, as well as a dermoid sinus adjacent to S1

The suspected diagnosis was a dermal sinus complicated by a lumbar abscess

The child underwent a laminectomy from L1 to S1, with direct pus discharge upon dural opening. The tumor was strongly adhered to the nerve roots. A hair follicle and calcification were found (Figure 4). A gross-total resection was done.

Histopathological examination revealed a Grade 1 immature teratoma.

Conclusion : Intramedullary teratomas of the conus medullaris in children are uncommon, they should remain within the spectrum of differential diagnoses when evaluating masses affecting this region. It is imperative to consider all potential diagnostic

possibilities for intramedullary lesions, including rare entities like teratomas, as they can significantly influence the surgical approach. The challenge lies in the diagnostic process due to the nonspecific clinical features, particularly in cases where associated spinal malformations are absent or when the tumor was infected as our case. Therefore, thorough consideration of all diagnostic hypotheses is essential to ensure accurate diagnosis and appropriate management strategies.

P62 -Diagnosis of Urothelial Carcinoma Following Spinal Cord Compression

Hatem Daoud, Mahdi borni Souhir Abdelmouleh Marwen Taallah Mohamed Zaher boudawa
neurosurgery departement

Abstract :

Background : Intramedullary metastases are a rare entity, accounting for only 4 to 8.5% of CNS metastases. These metastases are characterized by the rapid progression of neurological deficits, necessitating prompt treatment.

Aim : There are a few cases of intramedullary metastases due to renal cell carcinoma, and these metastases may sometimes precede the primary lesions

Methods Results : We report the case of a 62-year-old woman who consulted for pain in her right lower limb, accompanied by numbness in the 4th and 5th toes on the right side. Neurological examination revealed a lumbar spinal syndrome without motor deficits. MRI showed an intramedullary osteolytic lesion at the L5 level. An abdominal CT scan revealed a tumor in the left kidney. A CT-guided biopsy of the lesion was performed, and histopathological examination confirmed a Fuhrman grade II clear cell renal carcinoma. The patient was treated with radiotherapy and chemotherapy, with slight improvement in the initial symptoms.

Conclusion : Although spinal metastases are common, intramedullary involvement is exceptionally rare. It is rarely the presenting feature of the primary lesion. Early and appropriate management is essential to avoid neurological sequelae and improve the patient's quality of life.

P63 -Dorsal extradural cavernous angioma, case-report

Hajer Kammoun, Sameh Achoura, Ahmed Mribah, Mohamed Dahmani Yedeas, Khaled Radhouen, Ahmed Harbaoui, Ridha Chkili
Neurosurgery

Abstract :

Background : Extradural cavernous angioma is a relatively rare vascular malformation, representing 4% of extradural spinal tumor lesions. It is characterized by a clinical expression that is not specific, varying from a slow spinal cord compression to an acute radicular syndrome.

Aim : Our aim is to raise awareness among neurosurgeons about this rare pathology.

Methods Results : We report the case of a 63-year-old patient with a medical history of high blood pressure and coronary insufficiency, who was admitted in our unit for gait disorders with an intermittent medullary claudication and without sphincteric disorders.

On physical examination, we noted that the patient had paraparesis with a pyramidal syndrome predominating on the left, associated with a dorsal spinal syndrome recalling a spinal cord compression.

A spinal cord MRI showed an extradural expansive process, located at the height of D5, lateralized to the left and filling the homolateral intervertebral foramen.

It extended over 24 mm in height and measured 9 mm in the anteroposterior diameter.

It was in T1 hyposignal, in T2 hypersignal with intense and heterogeneous enhancement after Gadolinium injection.

It compressed the opposite dorsal cord , which presented a T2 hypersignal, reflecting spinal cord pain.

A complete surgical excision of the process is performed, via a laminectomy of D5 and D6.

Intraoperatively, a left posterolateral hemorrhagic extradural lesion was found.

The anatomopathological study found a connective tumor proliferation, made of ectatic and dilated vessels lined by a flattened endothelium. Their lumen was congested with red blood cells. These vessels were surrounded by fibrous septa, with no sign of malignancy, recalling a cavernous angioma.

The postoperative evolution was marked by improvement of motor disorders and the absence of recurrence.

Conclusion : Medullary cavernous angioma is a rare entity that must be considered in front of any medullary symptomatology. It must be diagnosed early and treated surgically before complications occur.

P64 -Dorsal Hydatid Cyst Inducing Spinal Cord Compression

Fatma Ben Atig, Malek Bourgou, Abdelhafidh Slimene, Ala Belhadj, Imed Ben Said, Jalel Kallel
Neurosurgery

Abstract :

Background : Hydatid disease, caused by Echinococcus granulosus, predominantly affects the liver and lungs but can also manifest in the spine, leading to serious neurological complications. Spinal hydatid cysts can result in compression of the spinal cord, requiring prompt intervention. This case illustrates a unique presentation of a dorsal hydatid cyst with thoracic involvement.

Aim : To report a rare case of a dorsal hydatid cyst in a 29-year-old woman and to discuss the clinical implications, diagnostic challenges, and surgical management strategies for this condition.

Methods Results : The patient presented with progressive thoracic pain, sensory deficits, and lower limb weakness, prompting imaging studies that revealed a large hydatid cyst compressing the dorsal spinal cord and extending into the thoracic cavity. The diagnosis was confirmed through histopathological analysis post-surgery. A two-stage surgical approach was employed, first addressing the cyst through a posterior dorsal approach, followed by a trans-thoracic approach to ensure complete removal and to mitigate the risk of recurrence. This case emphasizes the importance of thorough imaging and a multidisciplinary approach to effectively manage complex presentations of hydatid disease.

Conclusion : This case underscores the need for heightened awareness of hydatid disease as a potential cause of spinal cord compression, especially in endemic regions. Timely diagnosis and a strategic surgical approach are crucial in preventing lasting neurological impairment. Further studies are needed to refine management protocols and improve outcomes for patients with similar presentations.

P65 -Epidural Lymphangioma: A Rare Benign Lesion with Neurological Implications about two cases and literature review

Hatem Daoud, Hatem Daoud , Ahmed Maatoug , Walid raddoui , Amal Ben Balgacem , Imen Dammak , Brahim kammoun , Mohamed Zaher Boudawara
Neurosurgery department

Abstract :

Background : Epidural lymphangioma is an exceedingly rare and benign malformation of the lymphatic system occurring within the spinal epidural space. These lesions, while generally asymptomatic when occurring in soft tissues, may lead to serious neurological impairment when located in the spine due to compression of neural structures.

Aim : This article discusses the epidemiology, clinical presentation, radiologic features, therapeutic strategies, and prognosis of epidural lymphangiomas

Methods Results : We report two cases of epidural lymphangioma.

*Cas N1:

a 35-year-old female patient with no notable medical history who has been complaining of chronic lower back pain for 2 years. The course of the disease was marked by persistent symptoms, with the onset of heaviness in both lower limbs, accompanied by urinary retention and sphincter disturbances. On neurological examination, the patient presented a spinal cord compression with flaccid paraplegia, abolition of deep tendon reflexes in both lower limbs, bilateral pyramidal syndrome, and a sensory level at L1. An urgent spinal CT scan revealed an extradural lesion at the conus medullaris, exerting a mass effect on the spinal cord. The patient underwent emergency surgery with a D12-L1 laminectomy and excision of a reddish-gray, highly hemorrhagic purely extradural lesion, with infiltration of the paravertebral muscles. Postoperatively, the patient received functional rehabilitation, with partial improvement in motor deficit. Histopathological examination revealed an epidural lymphangioma.

*Cas N2 :

A 42-year-old male patient with no prior medical history presented with a two-month history of heaviness in both lower limbs. Neurological examination revealed signs of dorsal spinal cord compression, including flaccid paraplegia, bilateral pyramidal syndrome, and a sensory level at D6. An urgent spinal MRI demonstrated an extradural lesion at the D6 level, causing mass effect on the spinal cord. The lesion appeared hypointense on T1-weighted images, hyperintense on T2-weighted images, and showed intense enhancement after Gadolinium administration. A CT scan confirmed the mass effect on the spinal canal with scalloping of the vertebral body. The patient underwent emergency surgery, including a D6-D8 laminectomy and excision of the extradural lesion. Postoperatively, the patient received functional rehabilitation, leading to complete resolution of the motor deficit. Histopathological analysis confirmed the diagnosis of an epidural lymphangioma.

Conclusion : Epidural lymphangiomas, though rare, is a benign vascular tumors but present a significant risk to neurological function due to their location in the spinal canal. Early diagnosis and surgical intervention are essential for preventing long-term complications.

P66 -Epidural spinal angiolipoma: A case report

Inoubli M, Jelassi S, Ben lakhal A, Nouri D, Dkhil I, Nagi S.
Neuroradiology

Abstract :

Background : Angiolipoma is a benign tumor composed of mature adipose tissue and abnormal vessels. It is usually located in the subcutaneous soft tissue of the forearm, more rarely the trunk, face or scalp. Epidural localization is infrequent, accounting for 1.2% of spinal tumors. It can occur at any age, peaking between 40 and 50, and is predominantly female.

Aim : We report a case of spinal epidural angiolipoma discovered in a young female patient presenting with spinal cord compression.

Methods Results : A 34-year-old female patient was admitted to hospital with gradually worsening paraplegia. No specific medical or surgical history was noted. The history of the disease dated back one year, marked by the progressive onset of intermittent spinal cord claudication associated with sphincter disorders. Upon examination, the patient exhibited paraplegia, quadripyramidal syndrome and posterior cord syndrome. A spinal cord MRI revealed a well-defined posterior epidural mass on the thoracic level, extending from T4 to T8. The lesion appeared hyperintense on T1 and T2 sequences, with signal loss on STIR following fat saturation, and contained hypointense areas that enhanced with gadolinium contrast. It compressed the spinal cord anteriorly without causing signal abnormalities and obliterated both posterior and anterior peri-medullary fluid spaces. Urgent spinal decompression was performed via laminectomy and tumor excision.The macroscopic appearance of the surgical specimen was consistent with a soft, burnt tissue lesion. Histological study revealed a lobulated lesion composed of adipose and vascular components, concluding in an epidural angiolipoma. The evolution was marked by a significant recovery of neurological functions.

Conclusion : Epidural angiolipoma is uncommun, often revealed by slowly progressive paraplegia. Early recognition of this condition is crucial, as it is a benign and treatable cause of paraplegia. Surgical excision, typically a simple procedure, is the treatment of choice and leads to rapid recovery.

P67 -Extensive Cervico-Dorsal and Lumbar Neurocytoma

Imen Dammak, Fatma Kolsi, Khalil Ayedi, Ines chérif, Walid Raddaoui, Med Zaher boudawara
Neurosurgery

Abstract :

Background : Neurocytomas are typically benign, slow-growing tumors that are most commonly found within the ventricular system of the brain. Extraventricular neurocytomas (EVNs) represent a rare subset, with spinal involvement being exceedingly uncommon. Cases involving both cervico-dorsal and lumbar segments are extremely rare and pose significant challenges in terms of diagnosis and management.

Aim : To describe a unique case of neurocytoma with extensive involvement from the cervical to lumbar spine in a young male, focusing on clinical presentation, radiological findings, treatment strategy, and outcomes.

Methods Results : We report the case of a 21-year-old male who was oprereted on from an intraventricular neurocytoma and he presented with progressive weakness, sensory disturbances, and urinary incontinence. MRI revealed a recurrence af his tumor with an extensive intradural, extramedullary lesion with extension from the cervico-dorsal to the lumbar spine. The mass was isointense on T1-weighted imaging and hyperintense on T2-weighted sequences, with heterogeneous enhancement post-contrast. The patient underwent staged surgical resections aimed at debulking the tumor while preserving neurological function. Histopathological examination confirmed the diagnosis of neurocytoma. Postoperatively, the patient experienced partial recovery of motor and sensory function, and postoperative imaging showed no immediate recurrence.

Conclusion : Neurocytomas with extensive spinal involvement are rare and can present significant diagnostic and therapeutic challenges. This case underscores the importance of a multidisciplinary approach involving neurosurgery, radiology, and pathology. While complete resection may not always be feasible due to the tumor's extensive involvement, partial resection can lead to symptomatic relief and preservation of neurological function. Long-term follow-up is essential to monitor for recurrence and to assess the efficacy of adjuvant therapies if necessary.

P68 -Extradural Arachnoid Cysts : A case report and a review of the litterature

Talel Kammoun, Hatem Daoud, Mohamed Chabaane, Kaouther Somrani, Ben Fredj Rihab, Chiheb AbdelIleh, Hichem Ben Selma, Iadh Ksira
department of neurosurgery of Sahloul

Abstract :

Background : second year neurosurgery resident

Aim : A case report of extra dural arachnoid cysts , and a review of the litterature on treatment options

Methods Results : We report the case of a 13 years old male patient , with no medical history or history of spinsal trauma, who presented to the emergency department with progressive weakness of his lower limbs, associated with a recent onset of numbness ascending to the level of the xiphoid process. On admission, he had a motor power grade of two at both lower extremities, as well as hyperreflexia, spasticity and a positive Babinski sign. He Had no associated signs of bladder or bowel dysfunction. His Spinal MRI showed an epidural mass within the medullary canal, extending from the level of T5 to T12. This Lesion was of low intensity on T1-weighted images, and High intensity on T2 Weighted images, and it exerted a significant mass effect on the spinal cord.

The Patient was operated on via a posterior Dorsal approach, and he showed significant improvement post-operatively.

Conclusion : Spinal arachnoid cysts are a rare cause of myelopathy and spinal cord compression. While These cysts most commonly occur in the thoracic spine, they have also been reported in the lumbar and sacral regions.

Multiple theories on the mechanisms of the formation of spinal arachnoid cysts exist, however none have been confirmed.

Symptom duration of more than 1 year and a cyst size of more than 5 vertebrae are associated with poor surgical outcomes.

Multiple techniques have been reported for it's treatment, some surgeons only close the dural defect via a single level laminectomy to avoid post operative kyphosis.

P69 -Foramen magnum metastasis of nasopharyngeal neoplasm

Amal Benbelgacem, Mahdi Borni, Daoud Hatem, Taallah Marouen , Kammoun Brahim, Boudawara Mohammed Zaher
Neuro-surgery department . Habib Bourguiba UH .Sfax .Tunisia

Abstract :

Background : A brain tumor localized in the region of the foramen magnum is a rare entity, with a prevalence close to 1%. These tumors are mainly intradural and extra-medullary: meningiomas and neurinomas. Bone tumors account for 16%, of which 1/3 are metastases. Intradural metastases are exceptional.

Aim : We aim in this work to present a case report and a review of the literature. We discuss the pathophysiological mechanisms of FM metastases, with particular reference to cavum cancer.

Methods Results : We report the case of a 40-year-old man with a two-year history of nasopharyngeal neoplasm, treated with chemotherapy followed by radiotherapy and concomitant chemotherapy. Post-treatment MRI showed clear tumor regression. The patient consulted us in 2009 for walking difficulties. Brain MRI showed the presence of an extra dural bulbomedullary right posterolateral tumor. He was operated on via the extreme right posterolateral approach to the foramen magnum, with partial removal of this highly hemorrhagic lesion. Postoperative management was simple.

Intradural metastases of the Foramen Magnum are very rare. A better understanding of the anatomy of the FM helps in the choice of approach for surgery, which remains difficult because of the risk of bleeding.

Conclusion : Tumors of the foramen magnum region are a rare entity. Excisional surgery remains difficult because of the risk of haemorrhage.

P70 -Giant cell tumor of the thoracic spine : a case report and revue of the litterature

Myriam Naceur, S. Farhat, M.Inoubli ,F. Ben Atig, M.A. Hermassi, A.Belhadj , A. Slimane , K. Ghedira, S. Bouali, K. Abderrahmen , J. Kallel
Neurosurgery

Abstract :

Background : Giant cell tumors are rare primary bone tumors. Cases involving the thoracic spine are rarely reported in the literature.
Because of their potentially malignant nature, these tumors are treated by radical oncological intervention
Aim : This work reports the case of a patient managed for a thoracic giant cell tumor with involvement of the vertebral body in the neurosurgery department of the Institute of Neurology of Tunis . A review of the literature was carried out.
Methods Results : The patient was 38 years old, with no previous history, and presented with high mechanical low back pain radiating to the waist, heaviness in both lower limbs and difficulty walking.
Clinical examination revealed a pyramidal syndrome and paraparesis of both lower limbs. The patient also reported intermittent spinal cord claudication, reducing PM to 500m, with no vesico-sphincter disorders.
MRI showed an osteolytic lesion of the D11 vertebral body responsible for butterfly wing compression, with posterior arch and intracanal damage laminating the dural sheath, responsible for dorsal spinal cord compression.
The patient was operated, initially with laminectomy of D9, D10 and D11, partial corporectomy of D11 and finally posterior osteosynthesis. Secondly, through a left anterolateral approach, the D11 corporectomy was completed, resulting in a macroscopically complete tumour excision.
The anatomopathological study concluded that the tumour was giant cell.
Post-operative management was straightforward, with improvement in motor deficit.
Conclusion : In its most common presentation, giant cell tumor is a solitary neoplasm, most commonly affecting the bones of the leg. Vertebral localization is rare, with a prevalence of 3%. Preoperative diagnosis is difficult and often confusing, given its rarity.

P71 -Hydatid Cyst of the Spine :A report case

Emna Mzoughi, Ghassen Gader, Kerima belhaj ali, Wiem Mansour, Aziz Bedioui, Iskander Guediche, Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kamel Bahri ,Ihsen Zemmal
Department of neurosurgery

Abstract :

Background : Hydatid disease, also known as echinococcosis, is caused by the parasitic tapeworm Echinococcus. While the liver and lungs are the most common sites for hydatid cysts, they can also affect the spinal column, though this is relatively rare. only a limited number of cases have been documented in the literature.

Aim : Hydatid Cyst of the Spine :A report case

Methods Results : We report the case of 75 years-old female living in a rural area with a medical history of hypertension and diabetes, was admitted to our department for bilateral lumbosciatica and due to loss of bilateral lower extremity strength for the last one month . Additionally, the patient had urinary and fecal incontinence. An MRI of the spine revealed hydatid cysts extending from L3 to S3. A subsequent thoracoabdominal-pelvic CT scan showed calcified
hydatid cysts in the liver. The patient underwent a laminectomy, and Histopathology examination confirm the diagnosis. The patient was treated with Anti-parasitic drugs ; albendazole with favorable clinical and radiological progression.

Conclusion : Hydatid cysts of spine, though rare, can have significant clinical implications if not diagnosed and managed appropriately. A multidisciplinary approach involving clinical evaluation, imaging, serological testing, and surgical intervention is essential for effective management.
With prompt and appropriate treatment, patients can achieve favorable outcomes and a return to normal function.

P72 -Hydatid Cysts: Unraveling the Risk of Severe Lesions in the Dorsal Region A Case Report and Literature Review

Hatem Daoud, Marwen Taallah, Amal Ben Belgacem, Mahdi Borni, Souhir Abdelmouleh, Brahim Kammoun, Mohamed Zaher Boudawara
neurosurgery

Abstract :

Background : Hydatid disease, or echinococcosis, is a parasitic infection that often remains asymptomatic until it reaches an advanced stage. While the liver and lungs are commonly affected, hydatid cysts can also develop in the spinal region, particularly the dorsal spine. These cysts grow insidiously, and due to their deep location, they may not present noticeable symptoms until they have significantly progressed. This silent progression underscores the importance of early detection and intervention to prevent severe neurological and structural complications.

Aim : The aims of this work are to highlight the rarity and severity of dorsal hydatid cysts, explore the pathophysiology of spinal hydatid disease, provide a comprehensive review of the clinical manifestations and diagnostic approaches.

Methods Results : We report the case of a 32-year-old patient with a history of hepatic hydatid disease in 2014, who presented with heaviness in the lower limbs evolving over the past two months, associated with paresthesias. For the past 15 days, the patient described an exacerbation of the heaviness accompanied by sphincter disturbances.

On clinical examination, walking and standing were impossible. The patient exhibited flaccid paraplegia with absent deep tendon reflexes in the lower limbs. A pyramidal syndrome was also observed, with a positive Babinski sign. No sensory alteration was noted.

MRI of the spine revealed multiple cystic formations, infra- and supracentimeter in size, extending over a height of 16 cm, infiltrating the muscles and left dorso-lumbar paravertebral regions with intracanalar extension at the D11 and D12 foramina, resulting in spinal compression. The radiological appearance suggested a spinal hydatid cyst. The patient underwent a T10-T12 laminectomy with en bloc resection of the cystic lesion. The postoperative course was uneventful. The patient was placed on antiparasitic treatment, and the pathological examination confirmed the diagnosis of a dorsal hydatid cyst. Functional rehabilitation was initiated, with slight improvement in motor deficits postoperatively.

Conclusion : Dorsal hydatid cysts represent a serious and often overlooked form of echinococcosis. Given their potential for causing irreversible neurological damage, early diagnosis through imaging and serological testing is crucial for effective treatment planning. Surgical intervention, combined with antiparasitic medication, offers a promising approach to reduce recurrence rates and improve patient outcomes.

P73 -Hydocephalus revealing cauda equina tumor

Hatem Daoued, Fatma Kolsi, Imen Dammak, Rim Baklouti, Brahim Kammoun , Khalil Ayedi, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : Approximately 1% of patients with intraspinal tumors present with varying degrees of hydrocephalus at the time of diagnosis. This form of presentation is more frequently observed in malignant spinal cord tumors and has been associated with poor prognosis. The pathophysiological explanation in these cases is well-established: subarachnoid dissemination of the tumor and meningeal infiltration extending to the intracranial basal cisterns have been documented in most instances. Conversely, the natural history and underlying mechanisms of hydrocephalus seem to differ in the majority of patients with benign intraspinal tumors

Aim : The aim of this study is to investigate the occurrence and pathophysiology of hydrocephalus in patients with intraspinal tumors, with a focus on differentiating the mechanisms in malignant versus benign cases. We seek to explore the clinical presentation, diagnostic challenges, and prognostic implications associated with hydrocephalus in this patient population.

Methods Results : We report a case of hydrocephalus revealing benign intraspinal tumours in 5-year-old boy treated at the neurosurgery department of the University Hospital of Sfax

A 5-year-old child was brought to the emergency department by his parents due to altered consciousness, seizures, and a four-day history of heaviness in both lower limbs. On examination, the child was drowsy and had distal weakness in both lower limbs. Brain and spinal MRI revealed acute hydrocephalus and a tumor in the cauda equina region. The child underwent emergency surgery with the most complete tumor resection possible, along with a ventriculoperitoneal shunt. Histopathological examination identified the tumor as a neuroglial tumor with rosettes. The postoperative course was favorable, with significant improvement in symptoms.

Conclusion : Hydrocephalus in patients with intraspinal tumors is more commonly associated with malignant lesions and carries a poor prognosis due to the documented subarachnoid dissemination and meningeal infiltration. In contrast, the mechanisms underlying hydrocephalus in benign intraspinal tumors remain less understood and appear to follow a different natural course. Early recognition and appropriate management of hydrocephalus in both malignant and benign cases are crucial for optimizing patient outcomes. Further research is warranted to clarify the pathophysiological differences and improve treatment strategies.

P74 -Infected Epidermoid Cysts in the Cervical Region: Clinical Insights and Management: A Case Report and Literature Review

Hatem Daoud, Marwen Taallah, Amal Ben Belgacem, Mahdi Borni, Souhir Abdelmouleh, Brahim Kammoun, Mohamed Zaher Boudawara
neurosurgery

Abstract :

Background : Epidermoid cysts are benign growths filled with keratin, which can appear anywhere on the body. However, when they arise in the cervical region and become infected, they can quickly turn into a medical emergency. The close proximity of major blood vessels and nerves in the neck makes these infections particularly dangerous.

Aim : This work aims to break down the clinical aspects of an infected epidermoid cyst, focusing on its symptoms, diagnosis, and treatment options to prevent complications.

Methods Results : We report the case of a 48-year-old male patient with type 2 diabetes and hypertension who presented with a posterior cervical swelling. This cervical mass had been evolving for one year, but over the past 15 days, it became red and painful. For the past 2 days, the patient reported the discharge of pus. Neurological examination revealed no abnormalities, and the patient was febrile, with signs of biological inflammatory syndrome. The swelling was mobile, tender, and soft in consistency, with smooth edges and inflamed overlying skin.

An ultrasound of the soft tissues showed a posterior cervical mass with a suspicious vascularized area, suggestive of a degenerated lipoma. A cervical MRI was performed, revealing a lesion measuring 5 cm in diameter, exhibiting hypointensity on T1-weighted images and hyperintensity on T2-weighted images, without enhancement after gadolinium injection. There was adjacent fat infiltration, as well as cervical lymph nodes appearing inflammatory. The radiological appearance suggested an infected cyst.

The patient underwent surgery with complete excision of the mass, which contained a dark-colored material. Histopathological examination revealed a mass lined by keratinized stratified squamous epithelium, infected, with significant inflammatory reaction and the presence of keratin flakes, without signs of malignancy. The histological appearance favored a modified epidermoid cyst. The postoperative course was uncomplicated.

Conclusion : Infected cervical epidermoid cysts, though benign in origin, can lead to serious complications if neglected. The proximity of these cysts to critical structures in the neck makes early diagnosis and appropriate management crucial. The combination of antibiotics, incision and drainage, and eventual excision ensures the best outcomes for patients.

P75 -Intramedullary Dermoid Cysts of the Conus Medullaris: A Rare Spinal Pathology

Hatem Daoud, Ahmed Maatoug , Rim Baklouti , Walid Raddaoui , Brahim Kmmoun , Mohamed Zaher Boudawara
Neurosurgery department

Abstract :

Background : Intramedullary dermoid cysts of the conus medullaris are rare congenital spinal anomalies. Dermoid cysts are benign, slow-growing tumors that originate from ectodermal elements, typically containing hair, sebaceous material, and sometimes even teeth. These lesions are usually located in the cranial region, but in rare cases, they can be found within the spinal cord, particularly in the conus medullaris.

Aim : The aim of this work is to provide an overview of intramedullary dermoid cysts of the conus medullaris, highlighting their clinical and radiological features and the diagnostic challenges associated with their identification, particularly through MRI.

Methods Results : We report the case of a 54-year-old man with diabetes and hypertension, who consulted for gait disturbances evolving over the past 2 years, associated with intermittent medullary claudication, urinary disturbances in the form of urinary incontinence, and erectile dysfunction.

On neurological examination, the patient presented with a decrease in muscle strength in both lower limbs, along with a sensorimotor deficit in the L4 and L5 territories bilaterally, and bilateral pyramidal syndrome. The Achilles and patellar reflexes were absent bilaterally. A spinal MRI was performed, showing an intradural extramedullary process at the conus medullaris, appearing as T1 hyperintense, T2 hypointense, with moderate and homogeneous contrast enhancement. This lesion displaced the cauda equina roots. The patient underwent surgery, during which an intradural lesion displacing the nerve roots was found. The resection was complete. The intraoperative appearance suggested a dermoid cyst, and the pathological examination confirmed this diagnosis. The postoperative course was uneventful, with persistent neurological disturbances.

Conclusion : Intramedullary dermoid cysts of the conus medullaris are rare but potentially treatable lesions. Early recognition and surgical management are crucial to prevent long-term neurological deficits. As our understanding of the pathogenesis and clinical features of these lesions grows, improved diagnostic and therapeutic strategies are likely to emerge.

P76 -Intramedullary Lipomas:

Imen Dammak, Fatma Kolsi, Rim Baklouti, Khalil Ayedi, Brahim Kammoun, Ines Cherif, Med Zaher Boudawara
Neurocurgery

Abstract :

Background : Intramedullary lipomas are rare spinal cord lesions, often congenital, and represent a small fraction of spinal cord tumors. These lesions are typically non-enhancing and are most commonly located in the conus medullaris, although other spinal segments may be involved. Their presentation is usually insidious, with symptoms depending on the level of involvement.

Aim : To describe the clinical presentation, radiological features, surgical management, and outcomes in six patients with intramedullary lipomas, with emphasis on four cases located at the conus terminalis and two at the dorsal level.

Methods Results : This retrospective review included six patients with confirmed intramedullary lipomas, of which four were located at the conus terminalis and two at the dorsal spinal level. MRI findings, clinical symptoms, and surgical approaches were analyzed. The average age at diagnosis was X years, with a range of Y to Z years. The primary symptoms were progressive paraparesis, sensory deficits, and sphincter disturbances. Surgical resection was performed in X patients, with partial debulking in all cases due to the intimate association with functional neural tissue. Postoperative complications included (mention any complications). Most patients experienced symptomatic relief, although neurological recovery was variable.

Conclusion : Intramedullary lipomas, though rare, should be considered in patients presenting with progressive spinal cord symptoms. Early diagnosis and careful surgical intervention are crucial to prevent irreversible neurological damage. Despite the technical challenges, surgery offers symptomatic relief in most cases, with a need for individualized treatment strategies based on tumor location and patient condition.

P77 -Intraspinal Epidermoid Cyst of the Cauda Equina: A Case Report and Surgical Challenges

Mohamed Ghorbel, Fatma Kolsi, Ines Cherif, Ahmed Amine Daoud, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : Intraspinal epidermoid cyst is very rare. It represents 0.5 to 1% of all spinal tumors. The cauda equina is an uncommon location in such cases.

Aim : The objective of this case report is to present the clinical presentation, radiological findings, and surgical management of a rare intraspinal epidermoid cyst located in the cauda equina. This study aims to highlight the diagnostic challenges, surgical difficulties due to adhesions to nerve roots, and the potential for favorable postoperative outcomes in managing this uncommon spinal tumor.

Methods Results : Material and Methods:

We report the case of a patient who was treated in the department of neurosurgery in the Habib Bourguiba hospital for a primary epidermoid cyst located in the cauda equina

Results:

We report the case of a 44-year-old female. The patient has been suffering from chronic lumbar pain for two years. During the last two months, she reported a weakness of both lower limbs with a retention type sphincter malfunction.

Neurological examination showed paraparesis with abolished deep tendon reflexes. Lumbar spine MRI showed a posterior intradural and extramedullary oval tumoral formation extending from L1 to L5. Surgery was performed and
complete removal was not possible due tight adherences to the cauda equina
nerve roots. Histological examination was in favor of an epidermoid cyst. The patient had a good recovery. She was symptom-free few weeks after surgery.

Conclusion : Epidermoid cyst of the cauda equina is a rare finding. Despite its location and surgery difficulties, the post-operative results are promoting.

P78 -Lumbar Plasmocytoma: Key Insights into Diagnosis, Treatment, and Patient Outcome

Farah Bahri, Ghassen Gader, Wiem mansour, Mohamed Ali Kharrat, Aziz Bedioui, Skander Guediche, Mohamed Zouaghi, Mouna Rkhami, Mohamed Badri, Kamel Bahri, Ihsèn Zammel
Trauma and Burns Center of Ben Arous

Abstract :

Background : Lumbar plasmocytomas account for about 40% of solitary bone plasmacytomas. Although they can act as precursors to multiple myeloma, they can also present as isolated lesions. Early diagnosis and intervention are crucial, as solitary plasmacytomas generally have a favorable prognosis when detected at an early stage.

Aim : The recognition of lumbar plasmocytoma is crucial for timely intervention and effective management. This condition is most commonly observed in older adults, particularly men, and often presents with symptoms such as localized back pain, neurological deficits, or fractures.

Early identification allows for prompt surgical intervention, which can alleviate symptoms such as pain and neurological deficits. Implementing appropriate adjuvant therapies, significantly reduces the risk of recurrence and prevents progression to multiple myeloma.

Methods Results : We present the case of a 64-year-old male with no medical background who presented with a two-year history of mixed lower back pain. Over the last six months, he developed bilateral lumbosciatica with intermittent radicular claudication, without vesicosphincter dysfunction. MRI showed an expansive lytic process at the level of L3, involving the vertebral body and right pedicle, with signal abnormalities and intense contrast enhancement, suggesting an aggressive hemangioma. A CT-guided biopsy was performed, but the findings were inconclusive. He, later, presented for worsening of sciatic pain, prompting laminectomy of L3-L4 and L5, with stabilazation. The L2 segment was not stabilized due to bleeding complications. pathology ultimately confirmed a diagnosis of plasmacytoma, but the patient was lost to follow-up.

After 4 years, he presented for right cruralgia, without vesicosphincter dysfunction and no sensory or motor deficits. Imaging indicated the same mass centered on the vertebral body of L3, along with a Grade 4 retrolisthesis of L2 over L3. He underwent surgery for decompression and stabilization at L1, L2, L4 on the right side, and S1. Postoperatively, he reported significant improvement at one-year follow-up. He is currently being treated in hematology for symptomatic multiple myeloma with hypercalcemia and has received chemotherapy.

Conclusion : Lumbar plasmocytoma is a localized neoplasm of monoclonal plasma cells that primarily affects the vertebrae, often leading to pain and neurological deficits. While surgery, such as decompression and stabilization, effectively addresses immediate issues, it may not prevent recurrence or progression to multiple myeloma. Adjuvant therapy is crucial for targeting residual disease and improving patient outcomes.

P79 -Lumbar Sciatica Revealing a Neurinoma at the Conus Medullaris: The Critical Role of MRI

Hatem Daoud, Talel kammoun , Rihab Ben Fraj , Hichem Ben Selma , Mohamed Chabaane , Iadh Ksira
Department of neurosurgery CHU Sahloul Sousse

Abstract :

Background : Neurinomas are among the most common types of intradural extramedullary tumors, accounting for 15 to 30% of such cases. These tumors are predominantly found in the thoracic spinal region, but their occurrence at the terminal cone is rare and challenging to diagnose. Before presenting with typical signs of spinal cord compression, neurinomas can initially manifest as lumbar sciatica, which can be indistinguishable from common lumbar sciatica caused by disc herniation. This diagnostic difficulty is compounded by the lack of correlation between clinical symptoms and the actual level of the lesion, leading to potential delays in diagnosis ranging from four months to three years

Aim : We report two cases, highlighting the diagnostic challenges and emphasizing the significant contribution of MRI in the evaluation of symptomatic sciatica

Methods Results : 44-year-old female patient with no medical history, complaining of left-sided lumbosciatica (L5) evolving for 6 months, refractory to well-conducted medical treatment. Clinical examination revealed spinal stiffness, a positive Lasègue sign on the left at 45°, as well as motor deficit of the extensor hallucis longus. There were no sphincter disturbances.

X-rays of the lumbar spine and computed tomography did not reveal any abnormalities. An MRI of the entire spine was performed, which showed a single intradural, oval-shaped tissue formation at the T12–L1 level, with a vertical long axis. The lesion exhibited slight T1 hypointensity and T2 hyperintensity compared to the spinal cord signal. After gadolinium injection, the lesion enhanced intensely and heterogeneously. It was exclusively intracanalar, with no foraminal extension. These clinical and radiological findings pointed towards a diagnosis of a nerve tumor, likely a schwannoma.

Complete surgical excision of the tumor was performed. Histopathological examination confirmed the presence of a schwannoma originating from a dorsal nerve rootlet. Postoperative evolution was marked by the resolution of pain, although a slight motor deficit of the toe extensors persists.

Conclusion : Clinicians should consider tumors located near the terminal cone in the differential diagnosis of atypical sciatica, particularly in cases of nocturnal pain or pain that worsens in a supine position, with or without concurrent neurological deficits. MRI remains the most effective complementary examination in such scenarios.

P80 -Management of Intramedullary tumors in Fattouma Bourguiba Neurosurgery Department, Monastir: A Case Study of Eleven Patients

Ameur Affes, Mohammed Ilyes Krifa, Mehdi Darmoul
Neurosurgery department, Fattouma Bourguiba Hospital, Monastir, Tunisia

Abstract :

Background : Intramedullary tumors are rare neoplasms with significant impacts on the central nervous system. Their diagnosis and treatment present specific clinical challenges due to their location and biological characteristics.

Aim : This study aims to analyze the clinical, radiological, and pathological features of 11 cases of intramedullary tumors to better understand their presentation and optimize management strategies.

Methods Results : Methods: This retrospective study includes 11 patients diagnosed with intramedullary tumors, the majority of which were ependymomas. Data were collected from medical records, including clinical signs, imaging results (MRI), histopathological analyses, as well as administered treatments and postoperative follow-up.

Results: Among the 11 cases, the most represented histological type was ependymomas, primarily located in the cervical and thoracic regions of the spinal cord. Common clinical symptoms included back pain, motor deficits, and sensory disturbances. MRI revealed intramedullary lesions with specific characteristics for each histological type. All patients underwent surgical treatment, with outcomes varying based on tumor resectability and postoperative response. Post-surgical complications included persistent neurological deficits and tumor recurrences in some cases.

Conclusion : Ependymomas account for the majority of intramedullary tumors in this case series. Diagnosis of intramedullary tumors relies on a combination of clinical presentation, MRI imaging, and histopathological analysis. Results suggest that surgical resection is the treatment of choice, but it must be approached with caution due to the risks of complications and recurrence. Long-term monitoring is essential to manage potential recurrences and optimize patient functional outcomes.

P81 -Management of metastatic epiduritis : a review of 50 cases

Siwar Farhat, Khalil Ghedira, Kais Bouzouita, Asma Bouhoula, Sofien Bouali, Jallel Kallel
Neurosurgery department

Abstract :

Background : The spine is affected by metastases in approximately 40% of patients with cancer.

Aim : This study aims to detail the epidemiological, clinical, and paraclinical features of metastatic epiduritis, assess treatment approaches, and examine patient outcomes.

Methods Results : A retrospective study was conducted on 50 patients with metastatic epiduritis admitted to the Mongi Ben Hamida National Institute of Neurology, Tunisia, between 2011 and 2018. Data on clinical presentations, diagnostic imaging, treatment modalities, and outcomes were analyzed.

The average patient age was 54.11 years. The primary complaint was motor deficit, reported by 94% of patients, followed by spinal pain in 84%. The average time to disease progression was 1.9 months. All patients underwent spinal cord MRI, which revealed lesions predominantly in the dorsal region (82%). T1-weighted images provided a clear view of the medulla against hypointense peri-medullary structures, while T2-weighted images highlighted the hyperintense subarachnoid spaces. Upon diagnosis, urgent management was initiated. Eight patients (16%) underwent scan-guided biopsies following multidisciplinary consultations. Surgery was performed in 42 cases (84%) using a posterior approach. The most common cancers were lung (32%), breast (28%), and prostate (20%). All patients received radiotherapy. Neurological improvement was observed in 34 patients (68%), while 9 patients (18%) had stable conditions, and 7 patients (14%) experienced worsening. Current literature suggests combining excisional surgery with chemotherapy and targeted radiotherapy.

Conclusion : Metastatic epiduritis constitutes a neurosurgical emergency. Diagnosis should be prompt as soon as symptoms arise. MRI is the optimal diagnostic tool. Urgent surgical intervention can improve recovery chances, while radiotherapy and physical rehabilitation are crucial for subsequent management.

P82 -Medullary metastasis of Pinealoblastoma in a young adult

Rim Baklouti, Fatma Kolsi, Nesrine Nessib, Imen Dammak, Brahim Kammoun, Khalil Ayedi, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : Pineoblastoma is a rare type of pineal parenchymal tumor, accounting for approximately 15% of all pineal region tumors. These aggressive malignancies are characterized by direct invasion of surrounding structures and frequent dissemination via cerebrospinal fluid (CSF). We present a case of pineoblastoma in a young adult, complicated by medullary metastasis due to leptomeningeal spread.

Aim : The aim of this abstract is to highlight the clinical presentation, diagnostic challenges, and management of pineoblastoma with leptomeningeal spread. By detailing this case, we seek to enhance understanding of the tumor's aggressive nature and its potential for metastatic spread, contributing to improved diagnostic and therapeutic approaches.

Methods Results : A 28-year-old man with a history of pineoblastoma underwent subtotal resection of the tumor due to symptoms of intracranial hypertension, followed by postoperative radiochemotherapy. Eight years later, he presented with paraparesis predominantly affecting the distal limbs, bladder and sphincter dysfunction, and hypoesthesia with a sensory level at D7, indicative of spinal cord compression.

Cerebrospinal MRI revealed diffuse leptomeningeal involvement of the brain and spinal cord, suggesting spread of the tumor via cerebrospinal fluid from the primary site. Additionally, a dorsal compressive intramedullary tumor was identified at D8, with no evidence of local recurrence at the original site.

The patient underwent partial resection of the intramedullary tumor located between D7 and D9. Histological examination confirmed the presence of metastasis from pineoblastoma.

Conclusion : Due to the rarity of pineoblastomas, the existing literature on these tumors is limited. Nonetheless, several key conclusions can be drawn about these aggressive malignancies. It is crucial to investigate spinal involvement in patients with cerebral lesions, as pineoblastomas are known for their potential to metastasize via cerebrospinal fluid. Regardless of the treatment approach, the mortality rate for patients with pineoblastoma remains high, underscoring the need for ongoing research and improved management strategies.

P83 -Métastase Cervicale D'un Mélanome Malin A propos d'un cas

MOHAMMED BELABBACI, M.BELABBACI S.ARAB I.GUEZZEN S.BENAMARA R.GEURBOUZ B.BELLEBNA
MEDECINE

Abstract :

Background : Le mélanome est une tumeur d'origine mélanocytaire qui dans 80% des cas se développe sur une peau initialement saine, les 20 % restants trouvant leur origine au niveau d'un nævus. Le mélanome malin est une des tumeurs les plus agressives principalement en raison d'une extension métastatique rapide. Les métastases de mélanome cérébrales, vertébrales ,cardiaques ou autres, sont fréquemment réfractaires à la chimiothérapie, et sont donc grevées d'un pronostic fort sombre. Nous rapportant le cas d'un patient qui présente une métastase au niveau du rachis cervical d'un mélanome nodulaire

Aim : Les métastases vertébrales font partie des métastases les moins connues et restent très controversées sur le plan du traitement oncologique

Methods Results : Un patient âgé de 63 ans qui suit au service de dermatologie pour un mélanome malin nodulaire peri-mammaire gauche traité par des cures de chimiothérapie « deticene » et d'un curage ganglionnaire . Cinq ans plus tard le patient a eu un syndrome rachidienne cervical, fait des cervicalgies intense cédant partiellement aux antalgiques « palier II », avec une contracture des muscles para-vertébraux limitant les mouvements de la tête. Une IRM cérébro-médullaire est réalisée, revenant à la faveur d'un processus para vertébral postérieur cervical

Conclusion : Le mélanome est une tumeur agressif , au potentiel métastatique important, donc l'incidence est en augmentation. L'exérèse chirurgicale large à un stade précoce est le seul traitement potentiellement curatif ,puisque le potentiel métastatique est important et qu'aucune thérapeutique n'est actuellement efficace à ce stade.

P84 -Metastasis to the Craniovertebral Junction: case report

BOUCHEKOURA Hamza (MD), KHELIFA Adel (MD) , Bennafaa Toufik (MD, PhD), MORSLI Abdelhalim (MD, PhD)
Department of Neurosurgery, Mohamed Lamine Debaghine University Hospital (BEO), Algiers, Algeria

Abstract :

Background : The spine is the most frequent location of bone metastases, affecting the cervical spine in up to 15% of cases, but only 0.5% at the occipito-cervical level. Tumors of the occipito-cervical junction are defined by the involvement of the condyles and/or the atlanto-axial column.

Aim : This study aimed to discuss clinical, radiological, and best management tools of the aforementioned pathology.

Methods Results : We present the case of a 45-year-old female with a history of thyroid nodule who developed flaccid paraplegia and neck pain due to metastatic lesions involving C1, C2, and T11 vertebrae, causing spinal cord compression. The patient underwent surgery for both lesions. Postoperatively, she preserved motor strength in her upper limbs and was referred to rehabilitation for further management of her lower limb deficits. Early detection and timely intervention are essential to improving outcomes in these patients. The median survival of patients with spinal metastases is 10 months. Therefore, the primary goals are local disease control, pain reduction, improvement of neurological function, and maintenance of stability.

Conclusion : Metastases at the occipito-cervical level are rare and represent a significant therapeutic challenge due to the complex anatomy of the area and the neurovascular structures that may be affected.

P85 -Multiple perineural cysts of the entire spine: a case report

Inoubli M, Jelassi S, Ben Khalifa A, Bouzaouache I, Dkhil I, Nagi S.
Neuroradiology

Abstract :

Background : Tarlov cysts, or peri-neural cysts, commonly develop at the junction of the dorsal ganglion and the posterior nerve root, and are due to a dilatation filled with cerebrospinal fluid communicating with the subarachnoid space. They are most often found in the lumbosacral spine. Their prevalence is estimated at around 5% in the general population, and they are often asymptomatic.

Aim : We report an exceptional case of multiple, tiered perineural cysts involving almost the entire spine.

Methods Results : The case involved a 69-year-old female patient with a history of post-viral cirrhosis C. An abdominal CT scan performed as part of the follow-up of her disease revealed cystic formations of the spine centred on the inter-vertebral foramina at the thoracic and lumbosacral levels. Questioning of the patient revealed no radicular pain, paresthesias or genital-sphincter disorders such as urinary or fecal incontinence, dysuria or constipation. Clinical examination was normal. Straight leg raising test was found to be negative. Spinal cord MRI was performed to better characterize these cystic lesions, which showed multiple, tiered perineural cysts of the entire spine, enlarging the inter-vertebral foramina and ranging in size from 10mm to 42mm long axis. Conservative treatment was preferred in view of the multiple nature of the perineural cysts, which were widespread throughout the spine, and the absence of clinical symptoms.

Conclusion : Tarlov cysts are most often discovered incidentally on imaging performed for other pathologies, and the lumbosacral location is the most common. Multiple cysts involving the entire spine have rarely been reported in the literature. In the absence of clinical signs, the attitude is conservative. Otherwise, treatment is multidisciplinary, involving neurologists, neurosurgeons, urologists and physical physicians.

P86 -Posterior approach for anterior dorsal meningiomas

Roua Latrach, Rihab Ben Fradj, Omar Hattab, Med Amine Hmida, Iadh Ksira
Department of Neurosurgery

Abstract :

Background : Spinal meningiomas are rare, accounting for 25% of all spinal tumors. They are most commonly encountered in the dorsal spine of middle-aged females. The anterior or postero-lateral approach is generally the preferred technique for anterior dorsal meningiomas. While this approach ensures total tumor resection, it is not without postoperative complications.

Aim : Can a posterior approach offer total tumor resection with fewer postoperative complications?

Methods Results : We present the case of a 53-year-old woman with a history of breast cancer, treated with surgery followed by radiochemotherapy, who presented with bilateral lumbar sciatica associated with medullary claudication and bladder-sphincter disorders. Spinal MRI revealed an anterior D11 intradural tumor. She underwent surgery via a posterior approach with complete tumor resection and no postoperative deficits.

Conclusion : The posterior approach can be considered for anterior dorsal meningiomas, offering the possibility of total tumor resection with fewer postoperative complications. However, careful patient selection is crucial.

P87 -PRIMARY INTRADURAL EXTRAMEDULLARY MELANOCYTOMA OF THE THORACIC SPINE: RARE CASE REPORT AND REVUE OF LITERATURE

Mohamed Amine Hadj Taieb, Emna OUNI, Ahmed DAOUED, Amine TRIFA, Mehdi DARMOUL
Neurosurgery

Abstract :

Background : Primary central nervous system (CNS) melanocytoma is a rare entity, accounting for less than 0,1% of all the CNS tumors and roughly 1% of all melanocytoma cases. Only 70 cases have been reported, and its usual position is the cervical region. While they are considered
to be benign lesions, there is potential for their growth and transformation into malignant melanomas.

Aim : We report a rare case of a primary intradural extramedullary melanocytoma of the thoracic region in order to discuss the clinical, radiological and therapeutic features of this rare entity.

Methods Results : We present a case report of a 45-year-old man who presented to our department with a 2-month history of lower limb weakness and back pain. Magnetic resonance imaging shows an intradural extramedullary lesion at T9 level. The patient underwent a subtotal resection. Histopathology confirmed the diagnosis of melanocytoma of meningeal origin, with a low mitotic count.

Conclusion : Surgical resection is an effective method to manage this tumor. Nevertheless, adjuvant radiotherapy is advised due to the risk of recurrence and malignant transformation.

P88 -Primary Intramedullary Spinal High-Grade Glioma

Imen Dammak, Fatma Kolsi, Ahmed Daoued, Khalil Ayedi, Brahim Kammoun, Ines Cherif, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : Primary intramedullary spinal high-grade gliomas (HGGs) are rare and aggressive tumors of the central nervous system, with a poor prognosis. Their occurrence in various spinal cord regions presents unique diagnostic and therapeutic challenges. We report a series of cases with different localizations: cervical, cervicodorsal, dorsal, and conus medullaris.

Aim : This study aims to describe the clinical presentation, diagnostic approach, surgical management, and outcomes of patients with primary intramedullary spinal high-grade gliomas at various spinal levels.

Methods Results : We retrospectively analyzed five cases of primary intramedullary high-grade gliomas with different localizations: 2 cervical, 1 cervicodorsal, 3 dorsal, and 1 conus medullaris. All patients presented with progressive neurological deficits, including motor weakness and sensory disturbances. MRI was the primary diagnostic tool, showing diffuse spinal cord enlargement with contrast enhancement. Surgical intervention was performed in all cases, aiming for maximal safe resection. Histopathological analysis confirmed high-grade gliomas (WHO Grade III-IV) in all patients. Postoperative treatment included radiotherapy and chemotherapy. Despite these interventions, outcomes were generally poor, with rapid disease progression in most patients.

Conclusion : Primary intramedullary spinal high-grade gliomas are rare but highly aggressive tumors with a poor prognosis, regardless of their localization. Early diagnosis, combined with aggressive surgical and adjuvant therapies, is crucial, but overall survival remains limited. Further research is needed to improve therapeutic approaches and outcomes for these challenging tumors.

P89 -Primary Neuroectodermal Tumor of the Lumbar Spine: A Rare Case Report

Mohamed Ghorbel, Fatma Kolsi, Ines Cherif, Ahmed Amine Daoud, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : Primary neuroectodermal tumor is a malignant neural crest tumor. It usually develops in the brain in children and young adults. Secondary localization in the spine is possible through the cerebrospinal fluid. However, a primary localization is rare.

Aim : The objective of this case report is to describe the clinical presentation, radiological findings, and surgical management of a rare primary neuroectodermal tumor localized in the lumbar spine. Through this case, the study aims to emphasize the importance of early diagnosis, the role of surgical intervention, and the challenges in treating this aggressive malignancy, while highlighting the generally poor prognosis despite advancements in medical therapy.

Methods Results : Material and Methods:

We report the case of a young patient who was treated for a primary neuroectodermal tumor located in the lumbar spine, in the department of neurosurgery in the Habib Bourguiba hospital in Sfax, Tunisia

Results:

The patient is a 33-year-old man. He had no previous medical history. He was complaining of lower back pain for 6 months. He was admitted to our department for sudden exacerbation of the pain with walking disturbances. There were no sphincter disfunction associated. Physical examination noted a flask paraplegia, with abolition of deep tendon reflexes and a L1 sensitive level. Spinal MRI revealed a single well-limited right posterior lesion at the level of L1-L2. The patient underwent urgent surgery and the lesion was completely removed. The patient improved after surgery and was symptom-free after physical therapy. Pathological exam was in favor of a Primary neuroectodermal tumor.

Conclusion : Primary neuroectodermal tumor is a malignant tumor that rarely develops in the spine. Prognosis remains poor despite progress in medical treatment.

P90 -Rare and Unexpected: Extra medullary hematopoiesias a Cause of Spinal Cord Compression – Case Studies and Review

Hatem Daoud, Hichem Ben Selma , Talel Kammoun , Omar Hattab , Silm Gallaoui , Rihab Ben Fraj, Mohamed Chabaane , Iadh Ksira
neurosurgery

Abstract :

Background : Extra medullary hematopoiesis is a compensatory phenomenon with chronic overproduction of red blood cells and it is a physiologic response to chronic anemia, commonly observed in various hematological disorders. This phenomenon is habitually asymptomatic and it induces rarely a compression of adjacent organs such as the spinal cord

Aim : The objectives of this work are to:

1. Review the pathophysiological mechanisms underlying EMH.
2. Discuss the clinical manifestations and diagnostic challenges of spinal cord compression due to EMH.
3. Present potential therapeutic strategies for managing EMH-related complications.

Methods Results : We present the case of a 34-year-old man was referred with a 1-year history of urinary incontinence and a 3-month history of progressive leg weakness. He had been diagnosed as having thalassemia intermedia at the age of 4 years and had a splenectomy at 9 years of age. The physical Examination revealed hypoesthesia at the T6 levels and in the perianal region, both lower limbs were severely paretic with hyperactive deep tendon reflexes, bilateral plantar extensor responses and sustained clonus in both legs. Spinal MRI performed showed paravertebral soft tissue masses isointense, extending from T4 to T8 in the posterior part of the spinal canal and compressing the spinal cord which likewise were presumed to represent extra medullary hematopoiesis. Total laminectomy T4-T8 with biopsy of the paravertebral masses was performed. The patients' neurologic symptoms improved postoperatively especially urinary disorder and paraplegia. Histopathological evaluation confirmed extra medullary hematopoiesis

Conclusion : In the presence of a tissue mass in a patient with of chronic blood disease, it is important to mention the diagnosis of extra medullary hematopoiesis. The clinical examination and radiological explorations confirm the diagnosis. Treatment of foci of extra medullary hematopoiesis may include radiotherapy, transfusions, surgery, corticosteroid therapy or a combination of these different modalities.

P91 -Rare Case of Isolated Paravertebral Hydatid Cyst: A Diagnostic Challenge: A Case Report and Literature Review

Hatem Daoud, Marwen Taallah, Amal Ben Belgacem, Mahdi Borni, Souhir Abdelmouleh, Brahim Kammoun, Mohamed Zaher Boudawara
neurosurgery

Abstract :

Background : A hydatid cyst, also known as hydatidosis, is a zoonotic disease with a worldwide prevalence. While the liver and lungs are the most frequently affected organs, the parasite can occasionally involve other areas, such as the brain, vertebral column, and spinal cord. Musculoskeletal involvement is rare, occurring in only 0.5% to 5% of cases, and is always secondary to hepatic or pulmonary infection. Primary musculoskeletal hydatidosis, especially in the absence of visceral involvement, is exceedingly rare, posing a diagnostic challenge. Among musculoskeletal sites, primary involvement of paravertebral muscles is particularly uncommon, with only a few cases documented.

Aim : To highlight the rarity of primary musculoskeletal hydatidosis, specifically paravertebral muscle involvement, and to emphasize the diagnostic challenges in the absence of visceral infection

Methods Results : We report the case of a 66-year-old patient, with no significant medical history, presenting with a lumbar mass that had been evolving for two months, associated with progressively worsening lumbar pain radiating to the right lower limb. The mass was located in the right paravertebral lumbar region, hard, non-inflammatory, and measuring 6 x 13 cm on clinical examination. The patient was afebrile, with a normal neurological examination. A lumbar computed tomography (CT) scan revealed a well-defined mass in the right paravertebral muscles, with no signs of malignancy, suggesting a cystic lesion. Magnetic resonance imaging (MRI) of the soft tissues revealed a right paravertebral mass, measuring 7 cm in diameter, with a thick wall, no septations, and no solid intracystic component, showing no enhancement after gadolinium injection. The signal of this mass was homogeneous, suggesting a liquid content. The radiological appearance was suggestive of a liquefied hematoma. The patient underwent surgery with complete excision of the lesion. Histopathological examination concluded the diagnosis of a paravertebral hydatid cyst. The postoperative course was uneventful. A thoraco-abdomino-pelvic scan was done in search of other locations and it was without anomalies. The patient was placed on antiparasitic therapy.

Conclusion : The rarity of primary musculoskeletal hydatidosis, especially in paravertebral muscles without visceral involvement, underscores the diagnostic challenges associated with such presentations. Given the limited number of reported cases, early recognition and treatment are crucial to prevent neurological complications. A multidisciplinary approach, involving surgery and long-term anti-parasitic therapy, is essential for optimal patient outcomes.

P92 -Sacral Hydatid Disease: Diagnostic and Surgical Challenges in a Rare Case

Mohamed Ghorbel, Fatma Kolsi, Ines Cherif, Ahmed Amine Daoud, Mohamed Zaher Boudawara
Neurosurgery Department

Abstract :

Background : Hydatidosis is a parasitosis caused by the larva of the taenia Ecchinococcus Ganulosis. The bony localization of hydatidosis remains rare and is characterized by its clinical latency which delays diagnosis and favors the extension of the affection.

Aim : The objective of this case report is to describe the clinical presentation, diagnostic process, and treatment challenges associated with sacral hydatidosis. Through the analysis of a rare case, this study aims to emphasize the importance of early diagnosis, the limitations of surgical intervention, and the role of medical therapy in managing spinal hydatid disease. Additionally, the report highlights the need for preventive measures, especially in endemic areas.

Methods Results : Material and Methods:

We report the case of a patient who was treated for a sacral hydatid cyst in the department of neurosurgery in the Habib Bourguiba hospital, in Sfax, Tunisia

Results:

The patient is a 44-year-old man with no medical history. He was living in a rural area and was a shepherd. The patient was admitted for progressive back pain. He noted that he had sexual impotency for few weeks and no sphincter dysfunction. Clinical examination objected an isolated distal paraparesis. Lumbar MRI revealed multilocular cystic lesions in the sacrum with osteolysis. The patient underwent surgery. The removal of the cysts was challenging and could not be complete. The patient developed a distal motor deficit after surgery. Pathology was in favor of hydatidosis. Albendazol was admitted to the patient. With physical therapy the patient had partial motricity however sexual impotency did not improve.

Conclusion : Vertebral hydatidosis is a rare entity. It is characterized with its latency. Symptoms are not specific and spinal MRI is the key to diagnosis. Treatment depends on maximal cyst removal and on medical treatment. Prognosis is generally poor. Prevention is the best means of protection.

P93 -Schwannomatosis and Neurofibromatosis: Clinical Review and Case Study of multiple Spinal Schwannomas

Hatem Daoud, Talel kammoun , Rihab Ben Fraj , Hichem Ben Selma , Mohamed Chabaane , Iadh Ksira
Department of neurosurgery

Abstract :

Background : Schwannomas are the most prevalent benign tumors originating from Schwann cells that form the nerve sheath. Typically, schwannomas present as single, sporadic, benign neoplasms. However, in conditions such as neurofibromatosis type 2 (NF2), patients may exhibit multiple schwannomas. A classic feature of NF2 is the presence of bilateral vestibular nerve schwannomas. In some cases, the condition is referred to as schwannomatosis, characterized by the presence of multiple non-vestibular schwannomas without other manifestations of NF2.

Aim : The aim of this article is to compare the clinical characteristics, diagnostic criteria, and therapeutic approaches of schwannomatosis, a rare form of neurofibromatosis, with those of neurofibromatosis type 2 (NF2).

Methods Results : This is a 57-year-old male with no significant medical history, presenting with heaviness in both lower limbs that has been evolving for 3 months. On clinical examination, the patient exhibited cervical and lumbar radiculopathy syndrome with a left L5 deficit, pyramidal signs in both lower limbs, and a sensory level at T4. The general examination revealed neurofibromas on the posterior aspect of the left thigh and lentigines. A brain MRI was performed, showing multiple intramedullary extradurally located processes, with three cervical lesions, one thoracic lesion, and two lumbar lesions. These lesions appeared hypointense on T1-weighted images and hyperintense on T2-weighted images, with homogeneous and intense contrast enhancement. The largest lesion, measuring 3 cm in diameter, was located at the C6-C7 level. A diagnosis of spinal schwannoma was considered. The patient underwent surgery for the cervical lesion, which was exerting a mass effect on the spinal cord, with complete resection achieved and an uncomplicated postoperative course. He received functional rehabilitation, with partial improvement of neurological symptoms. Histopathological examination confirmed a diagnosis of spinal schwannoma. Multiple lesions and cutaneous neurofibromas raised suspicion of neurofibromatosis. Further brain MRI revealed bilateral vestibular schwannomas, confirming the diagnosis of neurofibromatosis type 2.

Conclusion : Schwannomatosis and neurofibromatosis, characterized by multiple spinal schwannomas, require early diagnosis and individualized management. Symptomatic treatment, particularly for neuropathic pain is essential to prevent complications such as spinal cord compression. A multidisciplinary approach, addressing both physical and psychological aspects, is critical to improving patient outcomes. Further research is needed to refine therapeutic strategies.

P94 -Solitary fibrous tumor of the lumbar spine ; Case report

Fatma Ben Atig, Malek Bourgou; Eya Chahed, Housem Hdhili, Khansa Abderahmen, Jalel Kallel
Neurosurgery

Abstract :

Background : Hemangiopericytoma is a rare malignant vascular tumor. The involvement of the spinal column is exceptional, only 40 observations have been reported in the literature.

Aim : We report in this work a new observation of a vertebral hemangiopericytoma of L4

Methods Results : A 26-year-old patient, with no particular pathological history, consulted for right-sided cauda equina hemisyndrome. MRI revealed an expansive process next to L4. Operated for L3-L4-L5 laminectomy with L3-L5 osteosynthesis and incomplete excision of the tumor process with simple postoperative procedures and clear improvement of symptoms. Histological examination concluded to be a solitary fibrous tumor. She consulted again 2 years later for recurrence of the same symptoms. The MRI showed a tumor recurrence. She underwent surgery for open biopsy and then embolization of the tumor was done. The histological examination again concluded that it was a solitary fibrous tumor. Cauda equina syndrome set in a year later. MRI showed the extension of the same tumor process. She underwent emergency surgery via the posterior route with 80% macroscopically complete excision with simple postoperative outcomes, motor improvement and disappearance of pain. The histological examination revealed a grade 3 anaplastic meningioma. Four months later, she was operated on for an additional L4 corpectomy with tumor excision via the anterolateral route and anterior osteosynthesis. The postoperative course was simple with a sequelae paresis of L3, L4 and L5 on the right rated at 4/5. Histological examination concluded that it was a solitary fibrous tumor of the WHO grade III hemangiopericytic type. At 4 months' follow-up, the patient presented a satisfactory functional state with no signs of recurrence.

Conclusion : Vertebral hemangiopericytoma is an exceptional malignant tumor. Modern imaging means, in particular MRI, can guide the diagnosis. The definitive diagnosis remains histological. The management of these tumors is poorly codified; there is currently no validated adjuvant treatment. Only complete excision allows the progression to be controlled. Prolonged follow-up is in all cases essential.

P95 -Spinal Dermoid Cyst Manifesting with Urinary Dysfunction in a Pediatric Patient: A Case Report and Literature Review

Hatem daoud, Hatem Daoud, Marouen Taallah, Amal Ben Belgacem, Mehdi Borni, Souhir Abdelmouleh, Mohamed Zaher Boudawara.
Neurosurgery sfax

Abstract :

Background : A spinal dermoid cyst is a rare congenital condition characterized by the presence of ectodermal elements such as hair, skin, and sebaceous glands within the central nervous system. Dermoid cysts located in the conus medullaris is particularly rare and present unique diagnostic and therapeutic challenges.

Aim : This work reviews the epidemiology, pathophysiology, clinical presentation, imaging characteristics, management strategies, and prognosis of conus medullaris dermoid cysts.

Methods Results : We report the case of a 5-year-old girl with no significant medical history who presented with urinary retention since 6 months. Urodynamic investigations were performed, suggesting a diagnosis of neurogenic bladder. The patient underwent pelvic floor rehabilitation combined with intermittent catheterization. The clinical course was characterized by persistent symptoms and the onset of low back pain. Clinical and neurological examinations were unremarkable. A supplementary spinal MRI revealed an intramedullary process at the level of the medullary cone, displacing the cauda equina roots, with radiological features suggestive of an Ependymoma. The patient underwent surgery with total excision of the intramedullary lesion, which appeared white and contained hair. Postoperatively, urinary symptoms improved, and the low back pain resolved. Histopathological examination confirmed the diagnosis of a Dermoid Cyst.

Conclusion : Dermoid cysts of the conus medullaris are rare but significant due to their potential to cause neurological deficits. MRI is essential for diagnosis and preoperative planning, while surgical resection is the mainstay of treatment. Early recognition and intervention are key to minimizing long-term neurological deficits and improving patient outcomes.

P96 -Spinal epidural cavernous hemangioma: A report of two cases

Dorsaf Nouri, Asma Ben Khalifa, Maroua Inoubli, Meriem Ben Hafsa, Soumaya Jelassi, Sonia Nagi
Department of Neuroradiology

Abstract :

Background : Spinal epidural cavernous hemangiomas are rare, benign vascular tumors located within the epidural space of the spinal canal and characterized by their distinctive cavernous structure, with a sponge-like appearance. They are often discovered incidentally by imaging. However, when they reach a size large enough to compress the spinal cord or nerve roots, they can lead to severe symptoms.

Aim : To report two cases of epidural cavernous hemangioma and highlight the role of magnetic resonance imaging (MRI) in Identifying this rare condition.

Methods Results : Two women, aged 35 and 56, were admitted with signs of spinal cord compression. They underwent spinal MRI.

MRI revealed a posterior epidural mass extending from T8 to T10 in the first case, and from T4 to T6 with enlargement of the left T5 intervertebral foramen and extra-canal extension in the second case. Both lesions appeared hyperintense on T2-weighted images. On T1-weighted images, the signal was heterogeneous, iso- and hyperintense in the first case, and homogeneously isointense in the second case. Both lesions showed significant enhancement. Cavernous hemangioma was suspected. Surgical excision of the lesions revealed friable, hemorrhagic tissue. The histopathological examination confirmed the diagnosis.

Conclusion : Cavernous hemangioma is a vascular malformation that can occur anywhere in the central nervous system. Epidural localization, particularly without extra-spinal extension, should be considered in the differential diagnosis of epidural masses.

P97 -Spinal Intradural Solitary Fibrous Tumor A Case Report

Firas Sliti, A. Slimane, Z. Ouelha, A. Belhadj, A. Hermassi, K. Ghedira, S. Bouali , K. Abderahmen , A. Bouhoula, I. Ben Said, J. Kallel
Neurosurgery

Abstract :

Background : Solitary fibrous tumor is a rare mesenchymal tumor that typically arises from submesothelial soft tissue or visceral pleura Occasionally there were reported Solitary fibrous tumor in SNC, particularly in spine, where they are extremely rare On literature, spinal SFTs are intradural extramedullary or intramedullary mass lesions, commonly located in thoracic and cervical spine

Aim : Our purpose is to consider SFT in the differential diagnosis of mass lesion compressing spinal cord , especially in presence of some atypical radiologic features i.e. absence of dural tail , heterogenous contrast-enhancement ,intra-and extramedullary components

Methods Results : A 28-year-old man was admitted to our institution due to right arm weakness Neurological examination revealed motor weakness in all right arm movements, hyperactive reflexes in right arm and in both legs, without Babinski sign or clonic jerks

MRI revealed an intradural extramedullary mass at level C2 43mm x 18mm with an important mass effect on spinal cord .The lesion was iso intense on T 2 w and isointense on T 1 w imaging, with a homogeneus contrast enhancement no dural tail and no anatomical relationship with spinal roots were noticed

Patient was carried in OR with suspect of spinal meningioma Total laminectomy C 2 C 4 and tumor resection with ultrasonic aspirator were performed Intraoperatively, the white and hard lesion was strongly adherent to the right lateral aspect of the cord, without any connection with meningeal layer On histopathology, tumor showed nuclear immunoreactivity for STAT 6 confirming the diagnosis of Solitary Fibrous tumor One month after discharge the right arm motor deficit was completely recovered. On radiologic follow up at 6 months there was no evidence of tumor recurrence

Conclusion : Their surgical features are hard consistency and unclear anatomical boundary between lesion and spinal cord

Distinct microscopic findings are dense collagenous band and spindle shaped cell morphology CD 34 immunoreactivity is strong and diffuse nuclear immunoreactvity for STAT 6

P98 -Spinal Pilomyxoid Astrocytoma in Children: A Rare Tumor with Aggressive Challenges

Hatem Daoud, Ahmed Maatoug , Walid raddoui , Amal Ben Balgacem , Imen Dammak , Brahim kammoun , Mohamed Zaher Boudawara
Neurosurgery department

Abstract :

Background : Pilomyxoid astrocytoma (PMA) is a rare tumor that was previously classified as pilocytic astrocytoma (PA) due to its similar histological characteristics. It is a relatively rare tumor, primarily affecting children, and is most commonly found in the chiasmatic-hypothalamic region. PMA originating in the spinal cord is extremely uncommon.

Aim : This article discusses the epidemiology, clinical presentation, radiologic features, therapeutic strategies, and prognosis of Spinal Pilomyxoid Astrocytoma

Methods Results : We report the cas of a 2-year and 9-month-old child, born at term following an uneventful pregnancy, via vaginal delivery, and has an up-to-date vaccination history. Since the age of 2, he has experienced a progressive deterioration in gait, associated with difficulties in maintaining an upright posture and episodes of urinary incontinence. While he can stand independently, he requires unilateral assistance for ambulation. Neurological examination reveals motor deficit in the right lower extremity and bilateral pyramidal signs affecting both lower limbs. He presented a scoliosis with a right-sided convexity. A brain and spinal cord MRI revealed an extensive intramedullary expansile process extending from T2 to T9, presenting as iso-intense on T1-weighted images and hyperintense on T2-weighted images, with peripheral and nodular enhancement following gadolinium administration. This lesion is associated with syringomyelic cavities both above and below, and a right-sided cervicothoracic scoliosis. The patient underwent an extensive laminectomy from T1 to T9 for the resection of a spinal tumor. The tumor was described as friable, grayish, hemorrhagic, and without a distinct cleavage plane. Intraoperative findings included areas of necrosis. The postoperative period was complicated by an infection at the surgical site, which required surgical revision and antibiotic therapy. The patient received functional and perineal rehabilitation; however, neurological and urinary symptoms persisted. This case underscores the challenges in managing spinal tumors in pediatric patients, particularly when compounded by scoliosis and neurological impairment.

Conclusion : Pilomyxoid Astrocytoma (PMA) represents a more aggressive variant of Pilocytic Astrocytoma, and its occurrence in the spinal cord introduces additional challenges for diagnosis, treatment, and prognosis. Spinal PMA tends to have a more aggressive course compared to its intracranial counterpart, with higher recurrence rates and poorer neurological outcomes.

P99 -Spontaneous rupture of conus medullaris dermoid cyst : A case report

Inoubli M, Jelassi S, Naceur M, Nessib N, Dkhil I, Nagi S
Neuroradiology

Abstract :

Background : Dermoid cyst is a rare congenital tumor that can involve the central nervous system. Its intra-spinal localization is estimated at less than 1%. It is usually intradural and extramedullary. Intra- medullary localization is very rare. Spontaneous rupture is an exceptional complication, rarely reported in the literature.

Aim : We report an exceptional case of spontaneous rupture of a dermoid cyst of the conus medullaris.

Methods Results : This was a 65-year-old female patient with a history of hypertension and diabetes, admitted for exploration of progressive paraparesis. The history of the disease goes back several years, marked by the insidious onset of lower-limb heaviness associated with progressively worsening bilateral lumbosciaticalgia. The patient also reported the recent onset of vesico-sphincter disorders, such as urinary incontinence. Clinical examination revealed a pyramidal syndrome and reduced muscle strength in the lower limbs. A spinal cord MRI revealed an intramedullary expansive process of the conus medullaris, lobulated in outline and extending over a height of 58mm. It has a fatty signal: intense signal in T1 and T2, fading after saturation of the fat signal and not enhanced after gadolinium injection. It is surrounded by a T2-hyposignal wall, enhanced after gadolinium injection. This lesion is accompanied by punctiform images perilesional and diffuse along the dorsal medulla, with a fatty signal suggestive of lipid droplets indicating cyst rupture. The diagnosis of a dermoid cyst of the conus medullaris ruptured in the ependymal canal was thus evoked. Surgical excision was proposed, but the patient refused. A radiological control was carried out one year later, showing stable lesions.

Conclusion : Intramedullary dermoid cyst is a rare entity. MRI plays an essential role in its positive diagnosis, due to its fatty content, and can detect any rupture in the ependymal canal and subarachnoid spaces.

P100 -Surgical decompression of spinal lymphangiomatosis/lymphangioma : indication and outcomes: about three reported cases

Benbelgacem Amal, Maatoug Ahmed , Abdelhedi Anis, Daoud Hatem, Kammoun Talel, Kammoun Brahim, Boudawara Mohamed Zaher
Department of neurosurgery / Habib Bourguiba UH. Sfax Sfax

Abstract :

Background : Lymphangiomas are benign and rare lesions consisting of abnormal proliferation of lymphatic vessels. Lymphangiomatosis is a rare childhood disease characterized by abnormal lymph tissue at multiple sites. When skeletal and visceral involvement are both common, the prognosis depends on the extent of extraskeletal disease.

Aim : Two cases of lymphangiomatosis of the spine and one rare case of solitary intraspinal epidural lymphangioma requiring surgical intervention were previously reported.

Methods Results : A 30-year-old caucasian man with no particular medical history of trauma who has been suffering from low back pain for almost 2 years. He was admitted to our neurosurgery department for rapid onset of heaviness of the 2 lower limbs with changes in sensation in the lower extremities associated to a recent bladder and bowl disorders without sexual dysfunction.

Neurological examination showed a flaccid paraplegia with bilateral sensory loss reachnig the groin fold (L1 level) and decreased bulbocavernosus reflex. The Babinski sign was present bilaterally and there was no evidence of saddle anesthesia. These finding suggested the conus terminalis syndrome.

Emergent magnetic resonance imaging (MRI) revealed a right epidural space fluid-filled mass with internal septa displacing the medullary cord to the left side. This mass was homogeneous and isointense on T1 sequences, hyperintense and heterogeneous on T2-weighted images short time inversion recovery (STIR) suggesting fluid content with regular margins, thin walls, and internal septa. After gadolinium injection, only the walls and the internal septa had an increased signal intensity on T1-weighted image without internal contrast enhancement.

The patient underwent emergent surgery consisting of D12-L1 laminectomy (respecting the joint mass) allowing the excision of a greyish red haemorrhagic purely extradural lesion associated to a paravertebral muscles infiltration. Histopathological examination concluded a cystic lymphangioma.

The postoperative follow-up was uneventhful with total disappearance of the symptomtolgy at day 3 postoperativly. The MRI imaging of the patient performed six months later showed gross total resection of the lesion.

Conclusion : Spinal lymphangiomas / lymphangimatosis are the rarely found pathology of the spinal canal. Surgery is indicated in case of neural compression and instability of the spine. Surgical outcome is strongly influenced by extraskeletal involvement in lymphangiomatosis and incomplete resection of lymphangimas.

P101 -Thoracic cord compression caused by Multiple Myeloma metastasis

Walid Raddaoui, Khali Ayedi, Hatem Daoud, Yassin Chaker, Brahim Kammoun, MZ. Boudawara
Neurosurgery department of Sfax

Abstract :

Background : Multiple myeloma (MM) is a hematologic malignancy that leads to osteolytic lesions. It commonly involves the spine. Spinal cord compression may be the presenting symptom of MM. The mainstay of treatment in patients with MM remains oncological with chemotherapeutic agents and radiotherapy but spinal cord decompression still have an important role especially in patients with motor deficit or sphincter disorders.

Aim : to present a rare case of spinal cord compression resulting from a dorsal localization of multiple myeloma.

Methods Results : A 66-year-old male patient with no past medical consulted in July 2024 for a 8 months history of walking disorders, increasing back pain and weight loss with no bowel or bladder dysfunction. Neurological examination revealed an inability to walk, a tenderness in both thoracic and lumbar spine with no motor nor sensory deficit. Full blood count revealed an anemia.

Computed tomography (CT) scanning showed multiple osteolytic vertebral lesions with an expansile one, involving the posterior arch of the D2 vertebra causing severe compression of the spinal cord.

The patient underwent a posterior dorsal approach and large excision of the posterior arch of D2. Histopathology confirms the diagnosis of Multiple Myeloma

Post operatively, the patient had partial improvement in pain and walking disorders and he was referred to a hematology department.

Conclusion : MM can be revealed by spinal cord compression and back pain may be the first symptom of the disease. The primary treatment for MM involves oncological therapies, however spinal surgery remains crucial for selected patients and aims to improve neurological function and
maintain stability.

P102 -Thoracic Spinal Cord Compression as a Manifestation of Prostatic Adenocarcinoma

Hatem Daoud, Talel Kammoun Mahdi Borni Marwen Taallah Souhir Abdelmouleh Mohamed Zaher Boudawara
Neurosurgery departement

Abstract :

Background : Spinal cord compression can be of metastatic origin and is a serious complication associated with a poor prognosis. Prostate cancer is the second most frequent cause of spinal cord compression in men, affecting 1 to 12% of all patients, and it can sometimes be the first sign of the primary lesion.

Aim : Spinal cord compression can be of metastatic origin and is a serious complication associated with a poor prognosis. Prostate cancer is the second most frequent cause of spinal cord compression in men, affecting 1 to 12% of all patients, and it can sometimes be the first sign of the primary lesion.

Methods Results : This case involves an 86-year-old man with no significant medical or urological history, who was admitted due to a heaviness in both lower limbs for the past 20 days, accompanied by walking difficulties and intense dorsal pain of an inflammatory nature, without any bladder or sphincter disturbances.

Upon examination, the patient was afebrile. He presented with flaccid paraplegia and abolished deep tendon reflexes in both lower limbs, along with left crural hypoesthesia and a sensory level at the 4th thoracic vertebra. An urgent spinal MRI revealed a posterolateral epidural process compressing the spinal cord. This process appeared hypointense on both T1 and T2-weighted images, with moderate enhancement after gadolinium injection. The patient underwent an emergency D3-D4 laminectomy with complete resection of a friable hemorrhagic dural lesion. Histopathological examination revealed an invasive carcinomatous proliferation, with histological features consistent with a metastasis of prostate adenocarcinoma.

Conclusion : Spinal cord compression due to prostate cancer is associated with a poor prognosis and high mortality. The occurrence of metastatic lesions preceding the primary tumor is rare. Treatment is based on laminectomy combined with radiotherapy to improve neurological signs and achieve longer survival.

P103 -A Case of Medulla Oblongata Compression: A Unique Neurological Challenge

Fatma Ben Atig, Malek Bourgou, Abdelhafidh Slimene, Ala Belhadj, Imed Ben Said, Jalel Kallel
Neurosurgery

Abstract :

Background : Posterior inferior cerebellar artery (PICA) aneurysms, although rare, can lead to significant neurological complications when they thrombose and exert pressure on surrounding structures. This case highlights a giant thrombosed right PICA aneurysm causing medulla oblongata compression in a 40-year-old patient, emphasizing the need for timely diagnosis and management.

Aim : To present a clinical case of a giant thrombosed right PICA aneurysm leading to medulla oblongata compression, discuss its clinical implications, and review relevant literature on the management of such vascular anomalies.

Methods Results : A 40-year-old male presented with acute neurological deficits, including dysphagia and vertigo. Imaging revealed a giant thrombosed right PICA aneurysm compressing the medulla oblongata. The patient's condition reflects the potential for life-threatening complications arising from PICA aneurysms. Treatment options, including surgical intervention and endovascular approaches, were considered. The case underscores the importance of early detection through neuroimaging and the need for an individualized treatment strategy based on the patient's presentation and aneurysm characteristics.

Conclusion : This case highlights the critical nature of giant thrombosed PICA aneurysms and their potential to cause significant morbidity. Clinicians must maintain a high index of suspicion for vascular anomalies in patients presenting with neurological deficits. Prompt recognition and appropriate intervention are essential to mitigate neurological damage and improve patient outcomes.

P104 -Acromegaly in Mac Cune Albright syndrome revealing a pituitary adenoma: case report and review of the literature

Benbelgacem Amal, Borni Mahdi , Abdelmouleh Souhir, Taallah Marouen, Daoud Hatem, Kammoun Brahim, Boudawara Mohamed Zaher
Department of Neurosurgery/ Habib Bourguiba UH . Sfax

Abstract :

Background : Mac Cune Albright syndrome is a hereditary condition that rarely reveals a pituitary adenoma. This syndrome associates a clinical triad of polyostotic fibrous dysplasia, "café au lait" skin spots and a hyperfunctioning endocrinopathy.

Aim : We report in this work the case of a pituitary adenoma discovered following Mac Cune Albright syndrome and the intraoperative difficulties of its excision.

Methods Results : Our 33-year-old patient presented with facial and extremity dysmorphia, cervical swelling and spaniomenorrhea, which had lasted for 7 years. Examination revealed acromegaly, truncal obesity and goiter. Biological findings included GH hypersecretion, hyperthyroidism, hypercorticism and hyperprolactinemia. Cervical ultrasound revealed a multinodular goiter, and bone scintigraphy revealed cranial, costal, sternal, spinal and limb dysplasia. Brain MRI revealed fibrous dysplasia of the right frontal and temporal bone, infiltrating the homolateral maxillary and ethmoidal sinuses, sphenoidal sinus and skull base, as well as a pituitary adenoma.

The patient underwent trans-sphenoidal microsurgical intervention after scopically controlled curettage of the tumoral bone mass filling the sphenoidal sinus. Postoperatively, she developed diabetes insipidus with correction of transient biological endocrine disorders. Follow-up MRI showed no recurrence. The patient is currently taking a somatostatin analogue.

Conclusion : In Mac Cune Albright syndrome, the efficacy of medical treatment is limited by the high cost and frequent resistance of GH receptor antagonists.

Surgical excision of the pituitary adenoma has a place in therapeutic management, despite the difficulty of dysplastic remodelling at the base of the skull.

P105 -Aluminium administration is associated with Biochemical parameters Histopathological changes in rat liver

ABBASSIA DEMMOUCHE, Bekhadda H., Menadi N., Bouazza S.
Biotoxicology laboratory,

Abstract :

Background : There has been considerable debate as to whether chronic exposure to aluminium may be involved in neuro-degenerative disorders, such as Alzheimer's disease and hepatotoxicity.

Aim : This investigation aimed at evaluating morphological changes in rat liver and variation of biochemical parameters

Methods Results : Methods: The animals were divided into four groups; group control and 03 experimental groups with 06 rats in each group. Aluminium was administered to female rats near puberty and puberty (10mg/kg). The measured parameters are : body weight of rats, organ weight, liver histology and biochemical parameters (blood glucose, TGO, TGP).

Results: Significant increase (p=0.001) in body weight among groups intoxicated with aluminium chloride in relation to the control. Chloride-intoxicated groups I, II and III of aluminium showed a significant increase in blood glucose, TGO, TGP proportional to the duration of treatment compared with the control. The results of the histological study showed the presence of serious alterations at the level of hepatic parenchyma with the appearance of serious cell lesions, infiltration of inflammatory outbreaks and tissue degeneration (necrosis).

Conclusion : Aluminium chloride have a adverse effects and disturbs liver function via hepatocyte impairment.

P106 -Approach to managing scaphocephaly

Dr Ferrah Sofiane, Pr Daoud S, Dr Elhamel H
Neurosurgery

Abstract :

Background : The most common form of craniostenosis is scaphocephaly due to premature fusion of the sagittal suture. It is distinguished from birth or during the first months of life. Sometimes the diagnosis is made late, leading to late corrective surgery.

Aim : This involves determining methods of surgical treatment in children with scaphocephaly.

Methods Results : Retrospective study Neurosurgery Department CHU Oran Algeria Period: 6 years (2018 to September 2023) Number of cases: 36 cases / Number of schaphocephaly: 23 inclusion criteria: craniostenoses Exclusion criteria: secondary cystinostoses The age of discovery varied between 4 months and 4 years, with an average age of 12 months for the schaphocephali. Type of cranistenosis operated on: scaphocephalus 23 Gender: (11 girls and 12 boys).

Conclusion : Anesthetic improvement, precision of the morphological type of scaphocephaly and surgical techniques allows, in most cases, to obtain an acceptable therapeutic result both functionally and aesthetically

P107 -Association between Multiple Sclerosis and Meningioma: Coincidence or Causality?

Imen Dammak, Fatma Kolsi, Khadija Moalla, Ines Cherif, Brahim Kammoun, Khalil Ayedi, Med Zaher Boudawara
Neurosurgery

Abstract :

Background : The coexistence of multiple sclerosis and central nervous system tumors has been reported in over 30 cases in the literature. Meningiomas have rarely been observed in MS patients, and their occurrence has been noted during treatment with immunomodulatory drugs such as interferon beta

Aim : The aim of this abstract is to highlight the rare coexistence of multiple sclerosis (MS) and central nervous system (CNS) tumors, particularly meningiomas, in patients with MS. It seeks to underscore the significance of these occurrences, especially in the context of treatment with immunomodulatory drugs such as interferon beta, and to contribute to the body of literature by discussing the clinical implications of this association.

Methods Results : We report the case of a dorsal meningioma in a patient followed for relapsing-remitting multiple sclerosis treated with interferon beta for 12 years.

The patient was 44 years old, married, with 3 children, and had been treated for MS for 12 years.

The history of her disease dates back to 2012 when the patient was diagnosed with MS following a visual relapse. The patient was put on interferon beta. The course of her disease was marked by the onset of 2 relapses 4 years apart, with gait instability treated by corticosteroid boli.

At present, she is consulted for heaviness of the right lower limb with urgenturia.

Examination revealed right Brown Sequard syndrome.

Cerebral-medullary MRI showed a dorsal meningioma opposite D8-D9.

Conclusion : Despite the limitations of this case report, our review of the literature has led us to conclude that there is insufficient evidence to confirm a definitive relationship between meningioma growth, the presence of the TGF-b receptor in tumor cells and INFb therapy in our patient. We believe that the coincidence of these common conditions should be regarded as purely coincidental, although a relationship has not been ruled out.

P108 -Cerebellar metastasis of colorectal adenocarcinoma

Amina Oueslati, Mohamed Amine Hadj Taieb , Kais Maamri , Mehdi Darmoul
Neurosurgery

Abstract :

Background : Colorectal cancer is the third most frequently diagnosed cancer.
Furthermore central nervous system is a rare location of colorectalcancer metastasis . A 56-year-old male with history of an excised colorectal adenocarcinoma referred to the emergency clinic with headache,vomiting, and walking balance disorder. A cerebellar mass lesion was determined in the CT-scan and more explored with MRI was afterwards totally excised. Pathology revealed a metastatic adenocarcinoma.
The patient after that was referred to complement treatment with radio-chemotherapy .
Aim : We aim to report a presentation of colorectal cancer with cerebellar metastasis
Methods Results : Case report
Conclusion : Despite significant advancements in the treatment of colorectal cancer, the prognosis for patients with brain metastasis remains poor.

P109 -Multiple brain lymphoma: About a case

Walid Raddaoui, Khalil Ayedi, Brahim Kammoun, Rim Baklouti, Yassin Chaker, MZ. Boudawara
Neurosurgery department of Sfax

Abstract :

Background : Brain lymphoma, also known as Primary Central Nervous System Lymphoma (PCNSL), is a rare, malignant and highly aggressive non-Hodgkin lymphoma that can invade the brain, spinal cord, eye, leptomeninges, or cranial nerves. PCNSL usually presents as a solitary lesion. The incidence of PCNSL is rising in both immunocompromised and immunocompetent patients.

Aim : To present a case of PCNSL presenting as multiple cerebral lesions in an immunocompetent patient

Methods Results : A 42-year-old man presented to our hospital with a 1 month history of dizziness, headaches, vomiting, and gait imbalance. Contrast-enhanced computed tomography revealed two intensely enhancing masses in the brainstem and the left parietal cerebral lobe with hydrocephalus. Whole-body computed tomography was normal. The patient underwent left parietal craniotomy with total resection of the tumor and external ventricular shunt insertion. Histopathology revealed diffuse large B-cell lymphoma. The patient died 1 month after surgery, and the course of disease was about 70 days.

Conclusion : PCNSL is a rare disease with atypical diagnosis and management. To facilitate early clinical treatment and improve the long-term survival of patients, it is necessary to master the imaging diagnostic methods and its features.

P110 -Neuromyelitis Optica Mimicking medullary compression syndrome : a case report and a review of the literature .

Amal Benbelgacem, Daoud Hatem, Maatoug Ahmed, Kammoun Talel, Kammoun Brahim, Boudawara Mohamed Zaher
Department of neurosurgery. Habib Bourguiba UH. Sfax. Tunisia

Abstract :

Background : Neuromyelitis optica (NMO) is an immune-mediated demyelinating CNS disease classically associated with optic neuritis and myelitis. Pathogenesis is mediated by auto-antibodies to aquaporin-4 (AQP4), a water channel protein found in periaqueductal and periventricular regions. The area postrema appears to be a preferential target of aquaporin-4 antibodies and has been proposed as the initial site involved.

Aim : We report a patient with NMO presenting a medullary compression- like syndrome.

Methods Results : 44-year-old woman presented back pain and paresthesias involving lower limbs over 6 weeks. She slowly progressed to asymmetric tetraparesis, prominent on the left side with urinary retention. The examination revealed flaccid monoparesis with T4 upper sensory level. Spinal cord MRI reveal Longitudinally high-intensity area at T5–T9. Brain MRI was normal. A medullary neoplasm was suspected. Treatment with methylprednisolone was beneficial, reinforcing the hypothesis of a postinfectious myelitis. Three months later, MRI showed only residual cord atrophy. Two years later, myelitis relapsed at the same spinal cord level, without cavitations. After medical treatment, her clinical and MRI findings once again improved. Further investigations were indicated. AQP4 auto-anti-bodies were positive. Moreover, visual evoked potential was in favor of Neuromyelitis Optica.The diagnosis was finally retained.

Conclusion : The case raised initial suspicion of medullary compression syndrome primarily due to the progressive onset of monoparesis, as opposed to the characteristic bilateral symptoms commonly observed in NMO. Nevertheless, NMO was confirmed by heightened levels of AQP4-IgG antibodies in her serum and CSF, as well as the spinal MRI manifestation.

P111 -Recurrent cerebral Hematomas revealing a Factor XIII Deficiency: a case report

Walid Raddaoui, Ghassen Elkahla, Rouaa Latrach, M.A Hadj Taieb, Kais Maamri, Mehdi Darmoul
Neurosurgery department of Sfax

Abstract :

Background : Intracranial hematomas in infants are primarily due to head trauma. Spontaneous hematomas are rare and often associated with coagulopathy or vascular disease.

Aim : Consider coagulopathy in the face of a repeated intracerebral hematoma

Methods Results : A one-year-old patient, with no significant medical history, was first admitted to our department at the age of three months for headache and vomiting with altered consciousness. An urgent brain CT scan was performed , revealing a huge left cerebellar posterior fossa hematoma with hydrocephalus. The patient underwent surgery with hematoma evacuation and cerebrospinal fluid (CSF) drainage, with a good postoperative outcome. In the following months, the patient was admitted to the pediatric unit for management of three other non-surgical spontaneous supratentorial and subtentorial hematomas. Investigations concluded a genetic deficiency in factor XIII, leading to the initiation of substitute therapy. The patient is currently in good health.

Conclusion : In the case of any spontaneous intracranial hematoma in infants, a hemostasis evaluation is recommended. Treatment for any coagulopathy should commence as soon as it is diagnosed.

P112 -Role of spinal MRI in the diagnosis of spontaneous intracranial hypotension : A case report

Inoubli M, Ben Lakhal A, Nessib N, Naceur M, Jelassi S, Dkhil I, Nagi S
Neuroradiology

Abstract :

Background : Spontaneous intracranial hypotension is a relatively rare condition, characterized by orthostatic headaches that are relieved by lying down, due to cerebrospinal fluid (CSF) leakage, without a history of significant trauma or invasive procedures such as surgery or lumbar puncture. This condition is often challenging to diagnose, as both the clinical presentation and imaging findings can be non-specific. The role of spinal MRI in diagnosing this condition is increasingly being recognized.

Aim : The aim of this work is to describe the findings of spinal MRI in the context of intracranial hypotension, based on a case from our radiology department at the National Neurology Institute.

Methods Results : A 20-year-old patient with a history of recurrent chronic subdural hematomas presented with progressively worsening headaches over the past month, unresponsive to usual analgesics. These headaches were moderate, appearing when the patient was in orthostasis and improving with supine positioning. Neurological examination was normal, raising suspicion of intracranial hypotension. Initially, a cerebral CT scan was performed, showing no abnormalities. A brain MRI was then performed. No indirect signs in favour of the diagnosis were found. There was no pachymeningeal enhancement, no ptosis of the cerebellar tonsils, no pituitary hypertrophy and no subdural collection. Given the strong clinical suspicion (headache characteristics and patient history), we decided to complete the investigations with a spinal MRI. This revealed staged anterior and posterior epidural fluid collections in the cervical-dorsal spine, with a signal similar to that of the CSF. It also showed a retro-spinal fluid collection at the C1-C2 level, as well as dilatation of the epidural veins. Taken together, these signs support the diagnosis of spontaneous intracranial hypotension.

Conclusion : Spontaneous intracranial hypotension is a challenging condition to diagnose. In addition to the classic signs seen on brain MRI, structural abnormalities and indirect signs at the spinal level are increasingly recognized as diagnostic indicators. The ability to identify these spinal findings can help radiologists either correct a misleading clinical diagnosis or support the diagnosis in cases with typical clinical features, even when cerebral MRI findings are absent.

P113 -Spinal Dural Arteriovenous Fistula: How i do it.

Malek Bourgou, Fatma Ben Atig ;
Neurosurgery

Abstract :

Background : Spinal dural arteriovenous fistulas (SDAVFs) are rare vascular malformations that can lead to progressive myelopathy due to venous hypertension and spinal cord compression. Early diagnosis and timely surgical intervention are critical to prevent irreversible neurological damage. We present a case of a 40-year-old male with progressive dorsal spine compression due to an SDAVF, emphasizing the surgical approach to resolving this condition.

Aim : To highlight the key surgical steps involved in treating SDAVF, with an emphasis on the technical aspects and intraoperative challenges. The surgical video will serve to enhance understanding of the procedure.

Methods Results : The patient presented with worsening lower extremity weakness, sensory deficits, and urinary incontinence. Spinal MRI and angiography confirmed a dural arteriovenous fistula at the dorsal spine level, causing significant venous congestion and cord compression. The patient underwent microsurgical occlusion of the fistula, which was accessed via a dorsal laminectomy. The fistula was identified using intraoperative angiography and meticulously ligated. Critical surgical steps, including precise localization, dissection, and coagulation, are demonstrated in the accompanying surgical video.

The patient showed significant postoperative neurological improvement. The surgical video illustrates the critical maneuvers required to isolate and occlude the fistula while preserving the surrounding vascular structures. Postoperative angiography confirmed complete obliteration of the fistula. At the 6-month follow-up, the patient regained motor function and experienced substantial sensory recovery, with resolution of his urinary symptoms.

Conclusion : Microsurgical treatment of spinal dural arteriovenous fistulas is a highly effective approach, particularly in cases where progressive spinal cord compression is present. The surgical video underscores the importance of meticulous dissection and intraoperative imaging in ensuring complete fistula occlusion and favorable neurological outcomes.

P114 -Stabilized hydrocephalus: should we operate?

Walid Raddaoui, Khalil Ayedi, Yassin Chaker, Rim Baklouti, Souhir Abdelmouleh, Marouen Taallah, MZ. Boudawara
Neurosurgery department of Sfax

Abstract :

Background : Congenital Hydrocephalus is characterized by excessive accumulation of cerebrospinal fluid in the ventricles. Its treatment is often surgical. However, for various medical or personal reasons, some patients may remain untreated.

Aim : The aim of this work is to ask whether all hydrocephalus should be operated on.

Methods Results : In this work, we report the case of two patients followed in our clinic for untreated congenital hydrocephalus who are currently leading normal lives.

Mr. M.T. and Ms. O.BM.: Two patients diagnosed with Dandy-Walker malformation and congenital hydrocephalus since childhood. Surgery was recommended, but the parents of both children refused the intervention.

Medical Follow-up: Regular follow-ups since childhood to evaluate neurological symptoms and monitor the progression of hydrocephalus.

Current Status:

At 34 years old, Mr. T. leads an active and productive life (employed and a singer). He has reported no major neurological symptoms and functions normally in his daily activities.

At 17 years old, although she occasionally experiences mild headaches, Ms. O.BM., a student, leads a fulfilling life and performs well academically.

Conclusion : These two cases demonstrate that some patients with untreated congenital hydrocephalus can lead normal lives with appropriate medical management and regular follow-up. However, the risk of late complications persists.

P115 -Voici la traduction de ton texte en anglais : Cranial Bone Metastasis from Papillary Thyroid Carcinoma: A Case Report

Walid Raddaoui, Maher Hadhri, K.Maamri, M.Darmoul
Neurosurgery department of Monastir

Abstract :

Background : Papillary carcinoma is the most common form of thyroid cancer. It rarely causes bone metastases. Cranial bone metastases primarily originate from lung, breast, or prostate cancers; however, those arising from papillary thyroid carcinomas represent a particularly rare entity, accounting for only 0.1% to 5%.

Aim : The aim of the text is to report a rare case of cranial bone metastasis resulting from papillary thyroid carcinoma, highlighting its clinical presentation, diagnostic imaging findings, surgical intervention, and the importance of recognizing such rare metastases in thyroid cancer management.

Methods Results : A 69-year-old patient, followed for 5 years for papillary carcinoma for which he underwent two surgeries following by four courses of radiotherapy, presented with a firm, painless, well-defined swelling on the right frontal area, with no local inflammatory signs and a normal neurological examination. Imaging studies revealed a 4 cm osteolytic lesion on the right frontal cranial vault with intracranial extension infiltrating the dura mater, in close proximity to the superior sagittal sinus without infiltration. The patient underwent surgery with complete resection of the lesion followed by cranioplasty, showing good postoperative recovery. Histopathological examination of the surgical specimen concluded a metastasis from papillary thyroid carcinoma.

Conclusion : Cranial metastases from papillary carcinomas are rare clinical entities. They are generally amenable to total resection, which is the treatment of choice.

P116 -Unveiling the Clinical Journey and Progression of Cauda Equina Syndrome Patients

Kalai.A, Dghim.I , Chaabeni.A , Salah.S , Boudokhane.S , Migaou.H , Jellad.A , Ben salah.Z
Service de Médecine Physique et de Réadaptation, C H U Fattouma Bourguiba Monastir, Tunisie

Abstract :

Background : Introduction:
Cauda equina syndrome (CES) involves the impairment of nerve roots below the level of the conus medullaris, extending from the vertebral bodies of L2 to the sacrum. It represents a peripheral neurogenic syndrome with multiple root involvement, predominantly characterized by significant sphincter dysfunction (1) . The functional prognosis, particularly concerning sphincter issues, is closely related to the duration and severity of compression on the lumbosacral roots (2) .

Aim : Objective:To assess the clinical features and determine the evolutionary profile of patients with cauda equina syndrome.

Methods Results : Patients and Methods:
This retrospective study examined patients with CES, regardless of the underlying cause, over a 12-month period. Evaluated parameters included epidemiological and clinical data, evolving complications, management strategies for vesico-sphincteric disorders, genital-sexual issues, and patient outcomes.
Results: The study included 34 patients (24 men and 10 women) with a mean age of 35.3 ± 10.7 years. Of these, 76.5% were manual laborers. Traumatic causes were identified in 29.4% of cases. Early surgical intervention was noted in only 29% of patients, with an average preoperative delay of 2.7 ± 2.1 days.Among the patients, 5.9% developed pressure ulcers, while 41.1% experienced urinary infections. Genital-sexual disorders were observed in 35.3% of cases, predominantly affecting orgasm and erectile function. Intermittent catheterization was used by 76.5% of patients. Post-rehabilitation, there was an average improvement of 15.23 on the Functional Independence Measure (FIM). One year into the follow-up, 58.5% had regained the ability to walk, and 23.5% had returned to work.

Conclusion : Cauda equina syndrome demands urgent diagnosis and treatment. Rehabilitation aims to assess and mitigate the impact of initial injuries, prevent secondary complications, and ensure optimal autonomy, along with physical, psychological, and social restoration.

Refrences :

1. AANS [Internet]. [cité 15 sept 2024]. Cauda Equina Syndrome. Disponible sur: https://www.aans.org/patients/conditions-treatments/cauda-equina-syndrome/

2. Jg K, Ke S, A M, Mm S, Mg W, F M. Predictors of outcome in cauda equina syndrome. European
spine journal : official publication of the European Spine Society, the European Spinal Deformity
Society, and the European Section of the Cervical Spine Research Society [Internet]. 1999 [cité 15
sept 2024];8(4). Disponible sur: https://pubmed.ncbi.nlm.nih.gov/10483835/

P117 -Unusual Clinical Presentation of Guillain-Barré Syndrome with Myalgias: A Case Study

Dghim.I, Kalai.A , Chaabeni.A , Salah.S , Boudokhane.S , Migaou.H , Jellad.A , Ben salah.Z
Service de Médecine Physique et de Réadaptation, C H U Fattouma Bourguiba Monastir, Tunisie

Abstract :

Background : Introduction:
Guillain-Barré Syndrome (GBS) is an acute inflammatory demyelinating polyneuropathy affecting the peripheral nervous system, characterized by ascending paralysis and loss of deep tendon reflexes (1) . While motor deficits are the primary clinical sign of GBS, other clinical manifestations can complicate diagnosis (2) .

Aim :

Methods Results : Observation:
We present the case of a 37-year-old patient who was transferred from the neurology department for rehabilitative care of flaccid tetraplegia. The patient reported a recent upper respiratory infection two weeks prior and had no other significant medical history. The muscle weakness began progressively in the lower limbs and extended proximally to distally.
Neurological examination revealed flaccid tetraplegia with areflexia, consistent with acute diffuse axonal-myelinic polyradiculoneuropathy, with initial axonal involvement on EMG.
GBS was diagnosed, and the patient received intravenous immunoglobulins, showing initial muscle strength recovery within five days. During rehabilitation, the patient experienced prominent muscle pain in the major muscle groups, exacerbated by palpation and movement.
Myositis was suspected, and laboratory tests revealed elevated muscle enzymes: CPK=220, LDH=832, Myoglobin=137, with negative myoglobinuria. The management involved rehydration and a high-protein diet, with monitoring of renal function. The patient's condition improved with gradual recovery of muscle strength and decreased muscle enzyme levels.

Conclusion : Discussion:
An atypical presentation should not rule out GBS, which remains one of the most common causes of muscle weakness. Our case highlights the unusual combination of polyneuropathy
with myositis, which worsened the muscle weakness but did not meet the criteria for neuromyositis, thus supporting the GBS diagnosis. The patient achieved satisfactory
functional outcomes through a tailored rehabilitation program, effective pain management, and supportive devices to prevent upper limb deformities and facilitate walking.

Refrences :
1. Guillain-Barré syndrome - The Lancet [Internet]. [cité 15 sept 2024]. Disponible sur: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(05)67665-9/abstract
2. van Doorn PA, Ruts L, Jacobs BC. Clinical features, pathogenesis, and treatment of Guillain-Barré
syndrome. The Lancet Neurology. 1 oct 2008;7(10):939-50.

P118 -Exploring Clinical and Urodynamic Insights into Paraplegic Patients During Rehabilitation

Dghim.I, Kalai.A , Chaabeni.A , Salah.S , Boudokhane.S , Migaou.H , Jellad.A , Ben salah.Z
Service de Médecine Physique et de Réadaptation, C H U Fattouma Bourguiba Monastir, Tunisie

Abstract :

Background :
Spinal cord injuries often lead to multifaceted impairments, including vesico-sphincteric dysfunctions (1) . These issues manifest as urinary difficulties such as retention, dysuria, and incontinence, which can significantly impact patients' quality of life. Urodynamic valuation is crucial for diagnosing these vesico sphincteric disturbances and optimizing management
strategies (2) .

Aim :
To assess the clinical and urodynamic characteristics of paraplegic patients, regardless of the underlying cause, within a rehabilitation setting.

Methods Results : Patients and Methods:
This cross-sectional study involved paraplegic patients with vesico-sphincteric disorders admitted to our service or referred for evaluation over a six-month period. Evaluated parameters included epidemiological and clinical data, as well as results from urodynamic tests.
Results:
The study included 48 patients (32 men and 12 women) with a mean age of 43.4 years; 16.3%
were diabetic. Paraplegia was traumatic in 68% of cases, with an average post-traumatic interval of 7 months. Clinical symptoms were primarily urinary leaks in 79.1% of patients and dysuria in 15.6%.
Uroflowmetry identified dysuria in 25% of cases. Cystomanometry revealed hyperactive, hypocompliant bladders in 39.9% of patients, and vesico-sphincter dyssynergy in 9%.
Profilometry showed sphincter hypertonia in 17% of cases. Therapeutic options included perineal rehabilitation in 21.4% of cases, anticholinergic treatment in 32.2%, and baclofen or alpha-blockers in 12%.

Conclusion : Conclusion:
Addressing vesico-sphincteric disorders should be an integral part of the rehabilitation program for spinal cord injury patients to preserve upper urinary tract function and enhance
their quality of life.

Refrences :
1. Agrawal M, Joshi M. Urodynamic patterns after traumatic spinal cord injury. J Spinal Cord Med.
mars 2015;38(2):128-33.
2. Ku JH. The management of neurogenic bladder and quality of life in spinal cord injury. BJU Int. oct
2006;98(4):739-45.