



Hellenic
Spine
Society

Diploma of the Hellenic Spine Society

(equivalent to the Eurospine Diploma)

MODULE 4: TRAUMA

29 May 2021



HYBRID SEMINAR



Centre for Dissemination of Research Results
of Aristotle University of Thessaloniki (KE.D.E.A.)
A.U.TH., Thessaloniki, Greece

The Panhellenic Medical Association grants credit points
of Continuing Medical Education (CME-CPD)

Course Manager

Ioannis Magras

Professor of Neurosurgery

SCIENTIFIC PROGRAMME

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Ioannis Magras
Professor of Neurosurgery

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LEARNING OUTCOMES

MODULE 4

1. Select & interpret appropriate x-ray, CT and MRI in spinal trauma
2. Classify fractures of C0-2, subaxial C-spine, TL-spine and sacrum
3. Compare surgical and conservative treatment methods at different levels, including C0-2, subaxial C, TL and sacrum
4. Define special features of conditions including AS, osteoporosis and trauma of the immature spine
5. Plan how to prevent complications in spinal trauma
6. Describe characteristics of spinal shock and spinal cord injury syndromes

DETAILED LEARNING OUTCOMES:

SESSION 1 - TRAUMA CERVICAL SPINE

Imaging of Cervical Trauma

- Select appropriate imaging for suspected cervical spinal injury
- Evaluate options for x-ray views
- Select CT and/or MRI as appropriate
- Differentiate between requirements following major and minor cervical spine trauma

Trauma of C0-C2: Classification & Management

- Define the role of ligaments in cervical spine stability
- Classify and relate to treatment
- Occipital condyle fractures
- Occipito-cervical dislocation
- Occipito-atlantal dislocation
- Axial atlanto-axial Instability
- Atlas (C1) fracture
- Axis (C2) fracture
- Traumatic spondylolisthesis C2

Trauma of Subaxial C- Spine: Classification & Management

- Estimate the incidence of and classify using the AO classification
- Use other classifications to determine treatment and prognosis
- Anticipate diagnostic pitfalls
- Evaluate non-surgical management options and when appropriate
- Recognise indications for surgical management
- Emergency
- Urgent
- Elective
- Justify different surgical approaches (anterior vs posterior, combined ant-post or post -ant)

SESSION 2 - TRAUMA THORACOLUMBAR SPINE

Imaging of Thoracic/Thoracolumbar Trauma

- Use the AO classification
- Select appropriate imaging for major and minor trauma
- Assess x-ray images
- Define the indications of CT and MRI as appropriate
- Identify specific conditions with compromised spinal function

Trauma of TL spine: classification & management

- Recognise the signs and symptoms of TL spine trauma
- Differentiate Denis, AO and TLICS classifications
- Explain the role of PLC for burst fractures, hematological, nutritional and metabolic
- Evaluate surgical techniques in:
- Anterior surgery including MIS techniques
- Posterior surgery including MIS techniques

Sacral Fractures: classification & management

- Describe the relevant anatomy
- Differentiate sacral fracture types
- Use the AO classification
- Recognize signs and symptoms of sacral fractures
- Compare surgical vs conservative treatment
- Evaluate surgical options

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Spinal Shock and incomplete
SCI Syndromes

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Trauma of Spine with Ankylosing Spondylitis and DISH: features & management

- Explain the aetiology of ankylosing spondylitis
- Define the role of the spine surgeon in AS
- Formulate a surgical management plan for AS fractures
- Anticipate particular difficulties in this patient population
- Explain what kind of imaging is mandatory and why

Osteoporotic Fractures: diagnosis & management

- Define osteoporosis
- Describe medical management of osteoporosis
- Summarize the diagnosis of osteoporotic fractures
- Use the AOSpine osteoporotic fracture classification
- Evaluate surgical options
- Outline the indications for vertebral augmentation procedures
- Outline indications for spinal instrumentation±VBR

SESSION 3 – PAEDIATRIC TRAUMA AND SCI TOPICS

Paediatric Spinal Trauma: features & management

- Outline features of the immature cervical and thoracolumbar spine
- Define SCIWORA/SCIWORET
- Explain mechanism of:
 - C-spine injury
 - Lumbar apophyseal injuries
- Plan appropriate investigations and management of injuries

- Explain spinal shock and its pathomechanism
- Define the different types of incomplete spinal cord injury
- Classify SCI by using the ASIA impairment scale and explain its clinical and surgical relevance
- Describe the clinical symptoms and pathomechanism of Central Cord Syndrome
- Discuss the importance of timing of surgery
- Explain why there is no role for methylprednisolone in SCI (NASCIS I-III)

Rehabilitation Following Spinal Cord Trauma

- Plan how to minimize challenges and problems
- Describe specific rehabilitation techniques
- Predict outcome of rehabilitation

Biomaterials in Spine Surgery

- Evaluate different biomaterial options in spine surgery
- Differentiate between Calcium-phosphate/ Hydroxyapatite act osteoconductive, whereas Bone Morphogenetic Proteins act osteoinductive
- Evaluate the options for cement stabilisation
- Explain the mechanical behaviour of calcium phosphate and BMP

SESSION 4 – POST-TRAUMATIC KYPHOSIS

Prevention and Management of Posttraumatic Kyphosis

- Discuss the reasons of post traumatic kyphosis
- Formulate therapeutic goals
- Explain how to restore sagittal balance
- Evaluate surgical options
- Justify a multidisciplinary team approach

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SCIENTIFIC PROGRAMME

Module 4: Trauma

Saturday, 29 May 2021

| | |
|----------------------|--|
| 08:30 - 09:00 | Course Registration & Welcome Coffee |
| 09:00 - 10:30 | Session 1: Trauma Cervical Spine |
| 09:00 - 09:10 | Introduction S. Stavridis, F. Kandziora |
| 09:10 - 09:30 | Imaging of Cervical Trauma A. Karantanas |
| 09:30 - 09:50 | Trauma of CO-C2: Classification & Management F. Kandziora |
| 09:50 - 10:10 | Trauma of Subaxial C-Spine: Classification & Management I. Magras |
| 10:10 - 10:30 | Case Discussion |
| 10:30 - 11:00 | Coffee Break |
| 11:00 - 13:30 | Session 2: Trauma Thoracolumbar Spine |
| 11:00 - 11:20 | Imaging of Thoracic/Thoracolumbar Trauma A. Karantanas |
| 11:20 - 11:40 | Trauma of TL Spine: Classification and management K. Paterakis |
| 11:40 - 12:00 | Sacral Fractures: Classification & Management T. Apostolou |
| 12:00 - 12:20 | Case Discussion |
| 12:20 - 12:40 | Trauma of Spine with Ankylosing Spondylitis & DISH: Features & Management F. Kandziora |
| 12:40 - 13:00 | Osteoporotic Fractures: Diagnosis & Management S. Stavridis |
| 13:00 - 13:30 | Case Discussion |
| 13:30 - 14:30 | Lunch Break |

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|----------------------|---|
| 14:30 - 16:00 | Session 3: Paediatric Trauma and SCI Topics |
| 14:30 - 14:50 | Paediatric Spinal Trauma: Features & Management A. Kapinas |
| 14:50 - 15:10 | Spinal Shock & Incomplete Spinal Cord Injury Syndromes D. Bouramas |
| 15:10 - 15:30 | Rehabilitation Following Spinal Cord Trauma T. Loizidis |
| 15:30 - 15:50 | Biomaterials in Spine Surgery A. Brotis |
| 15:50 - 16:00 | Discussion |
| 16:00 - 16:30 | Coffee Break |
| 16:30 - 17:30 | Session 4: Post-Traumatic Kyphosis |
| 16:30 - 16:50 | Prevention and Management of Post-Traumatic Kyphosis E. Papadopoulos |
| 16:50 - 17:20 | Case Discussion |
| 17:20 - 17:30 | Discussion - Closing remarks S. Stavridis, F. Kandziora |
| 17:30 | End of course |

ΙΑΤΡΙΚΗ ΠΡΟΟΠΤΙΚΗ

ΧΕΙΡΟΥΡΓΙΚΑ ΕΡΓΑΛΕΙΑ ΠΟΙΟΤΗΤΑΣ

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**MODULE 2: DEGENERATIVE DISEASES
OF THE SPINE**

28 May 2021

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AKNOWLEDGMENTS

The President of the Greek Educational Program of the Hellenic Spine Society would like to thank the following sponsors for their contribution:



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GENERAL INFORMATION

Module

Module 4: Trauma

Registration Fee

Module 4: 300 euros

Module 2 and 4: 500 euros

Course Date

29 May 2021

Course Language

English

Accreditation

The Panhellenic Medical Association grants credit points of Continuing Medical Education (CME-CPD)

Course venue

Centre for Dissemination of Research Results
of Aristotle University of Thessaloniki (KE.D.E.A) A.U.TH.
Thessaloniki, Greece

Organization

Hellenic Spine Society

Course Secretariat

Premium Congress & Social Events Solutions

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NOTES

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