

Module 9: Neurosurgery

The level of detail required in relation to information covered in any individual course will be determined by the makeup of the participant group, with greater discussion of surgical principles and techniques appropriate for a neurosurgical audience. This section also may be expanded to include a discussion of craniocervical junction and intracranial pathology if appropriate for the region and the background of the expected participants in the course.

Case presentation: *Chiari malformation and syrinx in a patient with scoliosis*

Participants should be made aware of the possible association of intradural pathology to deformity and patients presenting with pain and neurological disturbance of the upper and lower limbs.

Discuss differentiating clinical and radiographic features for intradural and extradural pathology as participants of a Principles course should be able to recognize common neurosurgical pathology (eg, Chiari malformation, syrinx, intradural and extradural neural tumors).

Also discuss, in general terms, the indications for and the nature of surgical intervention that may be undertaken.

Conclude the discussion with a brief summary of key points and take-home messages.

Learning outcomes

- Recognize features of intradural pathology and its relevance in relation to spinal deformity and neurological dysfunction of the upper and lower limbs
- Identify a Chiari malformation and other intradural abnormalities on standard investigations used to assess spinal pathology
- Outline the indications for and interpretation of intraoperative neural monitoring

Case presentation: Postoperative pseudomeningocele following lumbar decompression

Participants should discuss circumstances where a dural tear may occur and strategies that can be employed to minimize this risk. Also discuss the principles for the management of a dural tear when it occurs including the postoperative management.

Discuss the typical clinical presentation of a patient who presents with a pseudomeningocele, appropriate investigations, the indications for surgical intervention, the common findings at operation, and strategies that may be employed to rectify the problem.

Conclude the discussion with a brief summary of key points and take-home messages.

Case presentation: Young man with thoracic back pain and MRI evidence of an intradural lesion (Schwannoma)

Participants should be able to identify patients presenting with pain and/or neurological compromise due to intradural pathology, request and interpret appropriate imaging studies to evaluate this process.

Introduce the concepts in relation to the management of this type of lesion but in most cases referral will be made to neurosurgical colleagues to deal with this pathology.

Conclude the discussion with a brief summary of key points and take-home messages.

Learning outcomes

- Recognize features of intradural pathology and its relevance in relation to spinal deformity, pain, and neurological dysfunction of the upper and lower limbs
- Identify radiographic features of intradural pathology
- Outline the management principles for these conditions
- Recognize and manage common complications such as a postoperative dural leak