BASIC AND PRACTICAL SURGICAL SPINAL CORD AND VERTEBRAL BODY ANATOMY

MICHAEL BRUCE HOROWITZ, MD, FAANS, CAST
VERTEBRAL BODY ANATOMY

LUMBAR

CERVICAL
LUMBAR SPINE SURGICAL ANATOMY
LUMBAR DISC HERNIATION AT L/3/4
CERVICAL SURGICAL ANATOMY

- Cervical Spine Diagram
- Sagittal Section of Spine
- Cross Section of Spinal Cord
- Neural Structures:
  - Sensory Neurons
  - Gray Matter
  - Dorsal Horn
  - Motor Neurons
  - Ventral Horn
  - Ventral Root
  - Dorsal Root
  - Spinal Nerve
  - Sensory Neuron Soma
  - Dorsal Root Ganglion
  - Motor Tracts
  - Ascending Tracts
  - Descending Tracts
  - Cervical, Sacral, Corticospinal Tracts
  - Spinothalamic Tract
  - Dorsal Columns
<table>
<thead>
<tr>
<th>SYNDROME</th>
<th>CAUSES</th>
<th>CLINICAL FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete cord transection</td>
<td>trauma, infarction, transverse myelitis, abscess, tumour</td>
<td>complete loss of sensation below level, complete paralysis below level</td>
</tr>
<tr>
<td>Cord hemisection</td>
<td>trauma, MS, tumour, abscess</td>
<td>ipsilateral loss of motor and proprioception, contralateral loss of pain temperature</td>
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<tr>
<td>Central cord syndrome</td>
<td>neck hyperextension, spinal stenosis/ OA, syringomyelia, tumour</td>
<td>motor impairment &gt; sensory, UL &gt; LL, distal &gt; proximal, bladder dysfunction</td>
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<tr>
<td>Anterior cord syndrome</td>
<td>hyperflexion, disc protrusion, anterior spinal artery occlusion, post AAA</td>
<td>motor function impairment, pain and temperature loss, proprioception spared</td>
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<tr>
<td>Cauda equina syndrome</td>
<td>disc prolapse, tumour, infective</td>
<td>bladder/bowel dysfunction, saddle anaesthesia, sexual dysfunction</td>
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