CSRS, Instructional Course Lecture
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Chronic Myelopathy with Inadequate Surgical Decompression
Critical Decision Making

Introduction
This instructional course lecture will present various cases that highlight the critical decisions that must be considered when treating the patient with chronic myelopathy. This especially will factor into those who have had previous surgical intervention. Its basic algorithmic strategy is presented. A select bibliography is presented.

Critical Decisions
What is the condition of the patient's myelopathy?
- New
- Stable
- Improved
- Progressive

Was the diagnosis of cervical spondylitic myelopathy correct?
- Yes
- No
  - Other differential diagnosis must considered such as ALS, MS, Lyme disease, vitamin D deficiency, etc.

Are there significant remedial host factors?
- No
- Yes  i.e., smoking, malnutrition, vitamin deficiency, cardiopulmonary, etc.

What was the previous surgical approach?
- Anterior
- Posterior
- Combined

Was the previous surgery anterior, right, or left?
- Right
- Left

Was there evidence of recurrence laryngeal nerve or superior laryngeal nerve palsy?
- No
- Yes
  - If so, such as dysphonia or severe swallowing dysfunction, ENT evaluation
If previous ACDF, is the fusion solid?
- Yes
- No   CT scan (coronal extra cage bone), flexion-extension radiographs

If ACDF, is instrumentation present?
- No
- Yes
  o Type:  Plates
        Interbody prosthesis
        Bone, metal, plastics, other

What is the cervical alignment?
- Lordotic
- Neutral
- Kyphotic

Is the cervical spine biomechanically stable?
- Yes
- No   At level of index surgery or other levels

If cervical deformity is present, is it fixed or flexible?
- Fixed
- Flexible
- Combined

Where does imaging reveal compression?
- Index level
- Adjacent segment
- Ventral
- Dorsal

Was previous surgery posterior alone?
- Yes   Laminectomy number of levels
        Laminoplasty number of levels
- No
If posterior, is instrumentation present?
  • Yes  What type
    Number of levels
  • No

Was the previous procedure a disc arthroplasty?
  • No
  • Yes  If so, what implant is present

**Case Presentations**
1. Status post anterior cervical decompression and fusion, stable fusion, remnant bone, myelopathy worsening, allograft bone and plate, mitigating factor ankylosing spondylitis. Patient had correct diagnosis, previous right-sided approach, has no deformity with no previous signs of recurrent laryngeal nerve involvement.

2. Post laminectomy kyphosis with instability.


4. Post laminectomy with OPLL with still ventral deforming bone.

5. Status post ACDF with solid fusion, eccentric remnant bone.

6. Status post C1-C2 posterior spinal fusion with instrumentation with nonunion and instability.

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Bibliography


