

ETIOLOGICAL SPECTRUM OF NON-DEGENERATIVE SPINAL CORD COMPRESSION IN RHEUMATOLOGY: ANALYSIS OF 58 CASES

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Introduction

Spinal cord compression (SCC) is a serious complication frequently encountered in rheumatology, often associated with significant morbidity.

This study aimed to describe the etiological profile of non-degenerative SCC cases managed in a rheumatology department.

Multiple Myeloma (n=16):

- Subtypes: IgG (50%), IgA (25%), light-chain (25%)
- Compression site: Lumbar (56.2%), Thoracic (43.7%)
- Management: Corticosteroids (100%), Radiotherapy (62.5%), Laminectomy (25%)

Patients and Methods

- Design:** Retrospective study over 33 years (1990–2023)
- Setting:** Rheumatology department
- Inclusion:** Patients hospitalized for SCC
- Exclusion:** Traumatic causes, degenerative etiologies (disc herniation, spondylotic myelopathy), intradural tumors (schwannomas, meningiomas)

Infectious Spondylodiscitis (n=21):

- Causes: Tuberculosis (42.8%), Brucellosis (23.8%), Pyogenic (33.3%)
- Compression site: Thoracic (57.1%), Lumbar (38%), Cervical (4.7%)
- Surgery: 23.5%
- Corticosteroids: 57.1%

Results

- Total patients:** 58
- Sex ratio (M/F):** 1.5
- Mean age:** 63 years
- Compression level:**
 - Thoracic: 58.2%
 - Lumbar: 41.3%
 - Cervical: 10.3%

Skeletal Fluorosis (n=4):

- All with cervical SCC
- Cause: Hydrotelluric exposure
- Imaging: Diffuse osteosclerosis, interosseous membrane ossification
- MRI: Hypertrophy and ossification of posterior longitudinal ligament
- Surgery: Laminectomy in 2 cases

Paget’s Disease (n=3):

- Compression: Thoracic and lumbar
- Management: Conservative

Primary Bone Tumor (n=1):

- Chordoma with cervical compression
- Management: Tumor excision + radiotherapy

Etiology	Percentage (%)
Infectious spondylodiscitis (ISD)	36.2%
Multiple myeloma (MM)	27.5%
Bone metastases (BM)	22.4%
Skeletal fluorosis	6.8%
Paget’s disease	5.1%
Primary bone tumor (chordoma)	1.7%

Conclusion

In the absence of degenerative spine disease, SCC in rheumatology is most often due to **infections and malignancies**. In our series, **infectious spondylodiscitis** was the leading cause, followed by **multiple myeloma** and **vertebral metastases**.

Table1: The etiologies of non-degenerative spinal cord compression