A CASE OF MISMANAGED CERVICAL FRACTURE IN A PATIENT OF ANKYLOSING SPONDYLITIS
Spine fractures occur with minor trauma in patients with ankylosing Spondylitis. They are highly unstable with a high incidence of neurological deficit. Appropriate stabilization is the best option in such cases. Laminectomy further destabilizes the fracture.
CASE HISTORY

- Age: 70 years
- Sex: Male
- Known case of ankylosing spondylitis and diabetes mellitus
- History of fall while walking
- Patient developed weakness of all four limbs
MRI AT THE TIME OF INJURY

C6-7 extension compression injury stage 4 with minimal anterolisthesis (Allen Fergussen classification).
- He was treated elsewhere with C7 laminectomy.

- Subsequently, patient improved and started walking with support.

- Then, 5 months after surgery, patient developed a progressive neurological deficit and had progressive quadriplegia with bowel and bladder involvement.

- Then, patient came to ISIC for further treatment.
# Neurological Examination on Presentation

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### Sensory

- **Intact**

### PAS

- **Present**

### VAC

- **Present**

### ASIA Impairment Scale

- **D**
INVESTIGATIONS

MRI: C6 & C7 HAVE MALUNITED IN A DISPLACED POSITION WITH SUBSEQUENT NEURAL COMPRESSION
FLEXION AND EXTENSION RADIOGRAPHS: STABLE MALUNION AT C6 AND C7.
Through anterior approach, C6 and C7 corpectomy was done, cord decompressed, mesh cage with bone graft kept and stabilization done with cervical spine locking plate.
POSTOPERATIVE MRI
POSTOPERATIVE STATUS

- Postoperatively patient improved neurologically, had improved grip strength, and started walking with walker.

- Comprehensive rehabilitation was started and patient was discharged after 15 days.
## Neurological Examination on Discharge After 15 Days

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### Sensory

- Intact

### PAS

- Present

### VAC

- Present

### ASIA Impairment Scale

- D
CASE HISTORY

On follow up at 2 months, patient is walking with support and has improved neurology.
DISCUSSION

- There is a high incidence of spinal cord injury with fracture in patients with ankylosing spondylitis.

- This is due to higher instability of fractures.

- This higher instability is due to long lever arms formed due to fusion.

- There is high incidence of progressive neurological deficit after fractures, even improper transfers may increase the neurological deficit.
In our case, an initially undisplaced fracture with no cord compression, was treated elsewhere with a laminectomy which led to further displacement and malunion in displaced position with subsequent cord compression.

The patient presented with neurological deterioration.

This sequence of events could have been avoided by a primary stabilization in the first instance.

With subsequent decompression and stabilization, the patient improved neurologically.
• Even trivial trauma causes fractures in patients with ankylosing spondylitis

• These fractures usually occur through the disc space as it is usually unossified.

• The best way to manage such patients is with early stabilization through either anterior or preferably posterior multilevel stabilization.
Spine fractures occur with minor trauma in patients with ankylosing spondylitis.

They are highly unstable with high incidence of neurological deficit.

Appropriate early stabilization and decompression is the best option in such cases.
• Laminectomy further destabilizes the fracture and may lead to further displacement and neurological deficits.

• Laminectomy alone without stabilization is contraindicated in patients with fractures, especially in patients with ankylosing spondylitis.
REFERENCES


