

Extensive Epidural Plasmacytoma: A Rare Clinical Entity

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INTRODUCTION:

Spinal cord compression from an epidural myeloma without combined pathological fractures of vertebral body is rare affecting less than 5% of multiple myeloma patients¹. Serious neurological event may occur in epidural cord compression.

REPORT:

A 63-year-old lady, with no significant medical background, presented with worsening back pain for 7 months

associated with rapid progressive lower limb weakness and constitutional symptoms for 6 months. She ambulated with wheelchair during the presentation. Otherwise, urinary and bowel functions were spared. Neurological examination revealed bilateral lower limb muscle power of Grade IV, intact sensation with positive Babinski's signs.

Initial laboratory test revealed hemoglobin of 9.1 g/dL, white cells of $5.8 \times 10^9/L$, ESR of 102 mm/hr and elevated serum total protein 10.5 g/dL (Normal 6.6-8.3). MRI whole spine revealed multiple hypointense lesions involving almost entire spine as well as pelvic bones with no vertebral reduced height. There is an enhancing para spinal mass with intramedullary extension from T3 till T11 vertebra. The intramedullary extradural extensions cause significant spinal cord compression and spinal canal stenosis.

Patient underwent decompression T3 till T12 pedicle, posterior instrumentation with fusion and biopsy afterwards. BMAT done by Hematology team yields proliferation of plasma cells displaying monoclonality. Patient currently on chemotherapy regime and her neurology is still similar.

CONCLUSION:

Spinal cord compression is rare in epidural plasmacytoma. Diagnosis requires high index of suspicion and involved multidisciplinary approach. Urgent surgical decompression with stabilization is crucial to preserve patient neurological function.

REFERENCES:

1. Ha, K.Y. et al., 2013. Multiple myeloma and epidural spinal cord compression: case presentation and a spine surgeon's perspective. *Journal of Korean Neurosurgical Society*, 54(2), pp.151-154.
2. Cui JF, Sun LL, Liu H, Gao CP. Extraosseous spinal epidural plasmacytoma associated with multiple myeloma: Two case reports. *World J Clin Cases*. 2021 Apr 16;9(11):2555-2561.

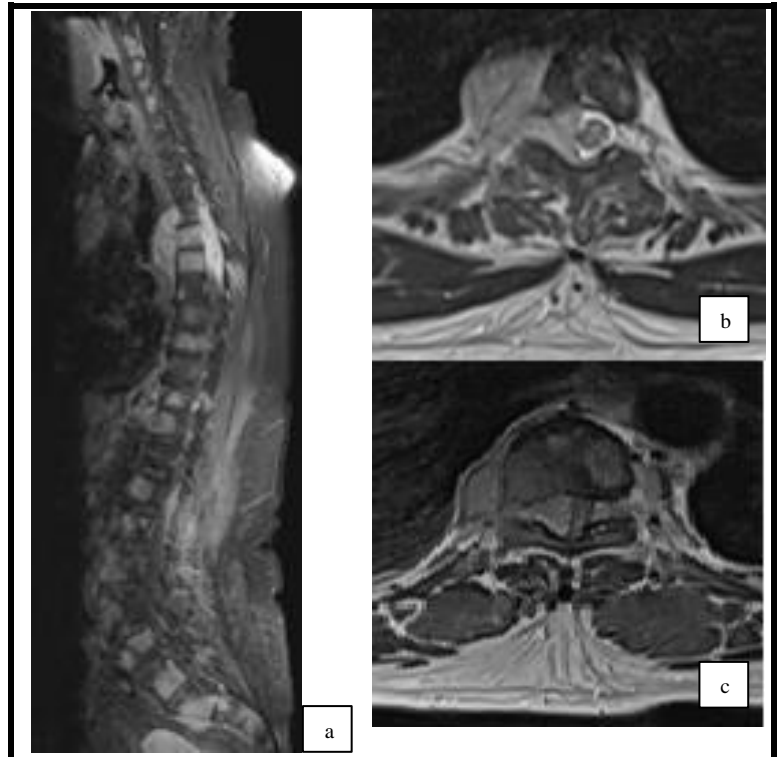


Figure 1: Pre-operative MRI images.

a Sagittal view whole spine T2W.

b Axial view T2W T5.

c Axial view T2W at T10 level.

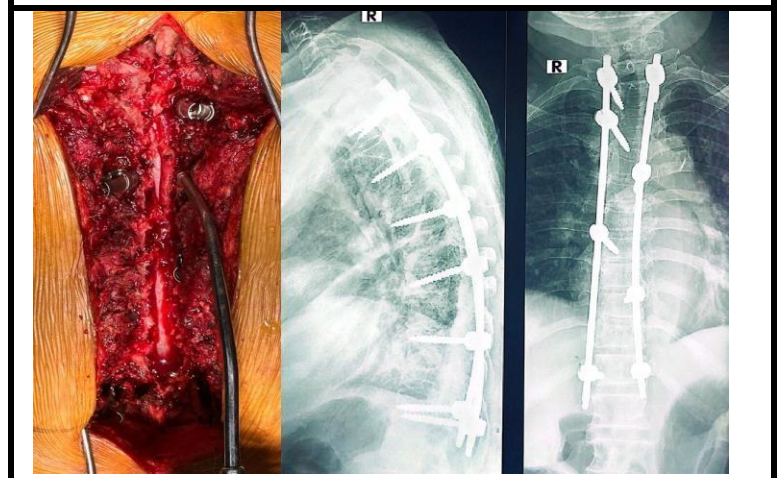


Figure 2: Intraoperative image and post-operative x-rays.