

CORRESPONDENCE

Collapse of Third Cervical Vertebra as First Manifestation of Plasmacytoma

Rathindranath Sarkar¹, Rudrajit Paul², Rajesh Pandey³, TJ Sau⁴, Affifur Rahaman³, Ayandip Nandi⁵

¹Professor and Head, ²Assistant Professor, ³Postgraduate Trainee, ⁴Professor, Dept. of Medicine, ⁵Demonstrator, Dept. of Pathology, Medical College, Kolkata, West Bengal

Sir,

Plasmacytoma is a plasma cell tumour of the bone¹. The tumour may occur in axial bones and initial symptoms are often non-specific. Hence, diagnosis may be delayed and this may lead to irreversible neurodeficit due to compression. We here report a case of Plasmacytoma of 3rd cervical vertebra. Plasmacytoma of cervical vertebrae has only rarely been reported from India.

A 56 year old female from West Bengal presented with pain in left side of the neck for last two months. She had not had any trauma to the neck. She at first tried over-the-counter analgesics with variable relief. Finally, she came to our clinic when the pain became unbearable and she had difficulty in turning her head. On examination, neck movements in all planes were restricted due to pain. There was no neurological deficit.

Initial x-ray of cervical vertebrae was inconclusive. Routine blood reports showed hemoglobin of 12 gm/dl, total leukocyte count of 8000/ μ L and ESR of 40 mm in 1st hour. Serum urea and creatinine were normal. Total serum protein was 6.7 gm/dl with albumin 3.2 gm/dl and globulin 3.5 gm/dl. An MRI scan of the neck was done which showed (Figure 1) collapsed 3rd cervical vertebra with mild cord edema. In view of the cord edema, although no neurological signs were present, oral

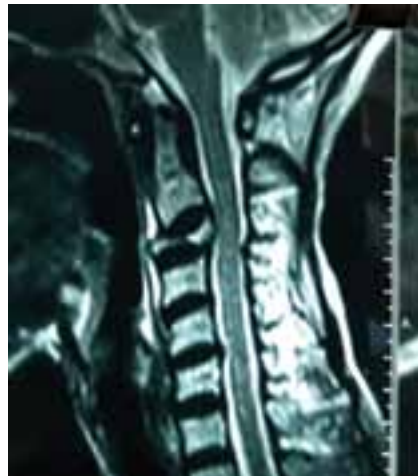


Fig. 1: MRI of cervical spine showing collapsed 3rd cervical vertebra with mild cord compression

dexamethasone was started. Along with that, high dose naproxen was also given for the pain. A CT-guided biopsy from the collapsed vertebra was done which showed (Figure 2) multiple plasma cells. Serum protein electrophoresis was done which was normal, with no M bands. Corrected serum calcium was 9.2 mg/dl. Urine did not show Bence-Jones protein. Bone marrow study also showed plasma cells <5%. Skeletal radiological survey did not show any other lesion at that point. MRI of whole spine and pelvis was done to look for concurrent lesions; this was negative. Serum free light chain assay could not be done due to cost factor. Thus, the final diagnosis was isolated Plasmacytoma of 3rd cervical vertebra.

The patient was transferred to the radiotherapy department where she underwent fractionated radiotherapy to the C3 vertebra with relief of the pain.

Plasmacytoma of cervical vertebrae are relatively rare and there is no pathognomonic clinical sign.² Patients present mainly with neck pain and may be initially treated for cervical spondylosis.³ Since any

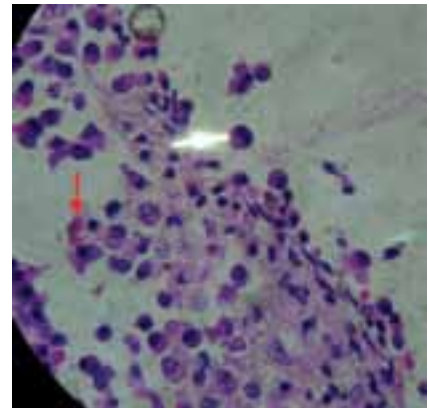


Fig. 2: Photomicrograph of biopsy specimen showing multiple plasma cells with binucleate cells (white arrow) and Russel bodies (red arrow)

cervical vertebral collapse may lead to quadraparesis or even lower bulbar involvement, early diagnosis and treatment are of paramount importance.² Plasmacytoma of cervical vertebrae is relatively rare compared to other segments of the spine. The treatment is also more challenging. According to standard guidelines, radiotherapy is the first line therapy.¹ But it may be combined with surgery if needed.^{2,3}

Even after successful treatment of a Plasmacytoma, the patient should be followed up for later development of multiple myeloma.

References

1. Hughes M, Soutar R, Lucraft H, et al. UKMF Guidelines Working Group. Guidelines on the diagnosis and management of solitary plasmacytoma of bone, extramedullary plasmacytoma and multiple solitary plasmacytomas: 2009 update. [Cited 2016 Apr 2]. Available online from http://www.bcshguidelines.com/documents/solitary_plasmacytoma_bcsh_FINAL_190109.pdf
2. Huang W, Cao D, Ma J, et al. Solitary plasmacytoma of cervical spine: treatment and prognosis in patients with neurological lesions and spinal instability. *Spine* 2010; 35:E278-84
3. Voulgaris S, Partheni M, Gousias K, et al. Solitary plasmacytoma of the upper cervical spine: therapeutic considerations. *J Neurosurg Sci* 2008; 52:55-9.