



# RARE CASE OF Ewing's sarcoma of the thoracic spine

*Bijendar Kumar Meena, Sweta Meena, Mangilal Meena, Sandhaya Bordia, Abhishek Gupta*

## Abstract

Primary spinal primitive neuroectodermal tumors (PNET) and/or spinal extraskeletal Ewing's sarcoma family tumors (ESET) are rare lesions appearing in the spinal extradural space. One hundred forty-one primary spinal PNETs, including 29 intramedullary lesions, have been reported in the literature

## CASE REPORT

We would like to report a case of a Ewing's sarcoma of the D7 vertebra in an eighteen-year old male who presented with pain in the back for one month, weakness in both lower legs & decrease sensation of touch since 6-7 days. There was tenderness at D7-D8 vertebral level.

A CT of the spine show an expansile lytic lesion of posterior element of D7 vertebrae involving the spinus process, associated with heterogeneously enhancing soft tissue component, which was extending from D7 to D9 vertebrae. The soft tissue component was seen involving the thecal sac, lamina, spinus process of D7 & causing compression and displacement of spinal cord anteriorly. MRI OF SPINE reveals an expansile lesion of posterior element of D7 involving spinus process & neural arch, associated with fairly large, enhancing soft tissue component {67\*32\*18} in posterior paraspinal region extending

D6-D7 to D8-D9 levels, extending into epidural compartment of canal at D6-7 and D7-8, causing compression and displacement of spinal cord anteriorly with severe secondary central canal stenosis AP diameter approximately 2mm. Histopathological examination revealed a Ewing's sarcoma

## DISCUSSION

Ewing's sarcoma is usually seen in the age group of 5-30 years with a peak incidence at 10-15 years. The male to female ratio is 3:2. Although it can involve any bone, it is more common in the bones of the lower extremity [2]. In the vertebral column, sacral involvement dominates followed by the lumbar, thoracic, cervical and coccygeal regions in order of decreasing frequency [3].

The dorsal vertebrae are involved in 1% of cases [4]. The vertebral body is affected primarily, although the neoplasm not infrequently extends from this region to the posterior osseous elements [5]. Ewing's sarcoma in a vertebral body leads to bone destruction,

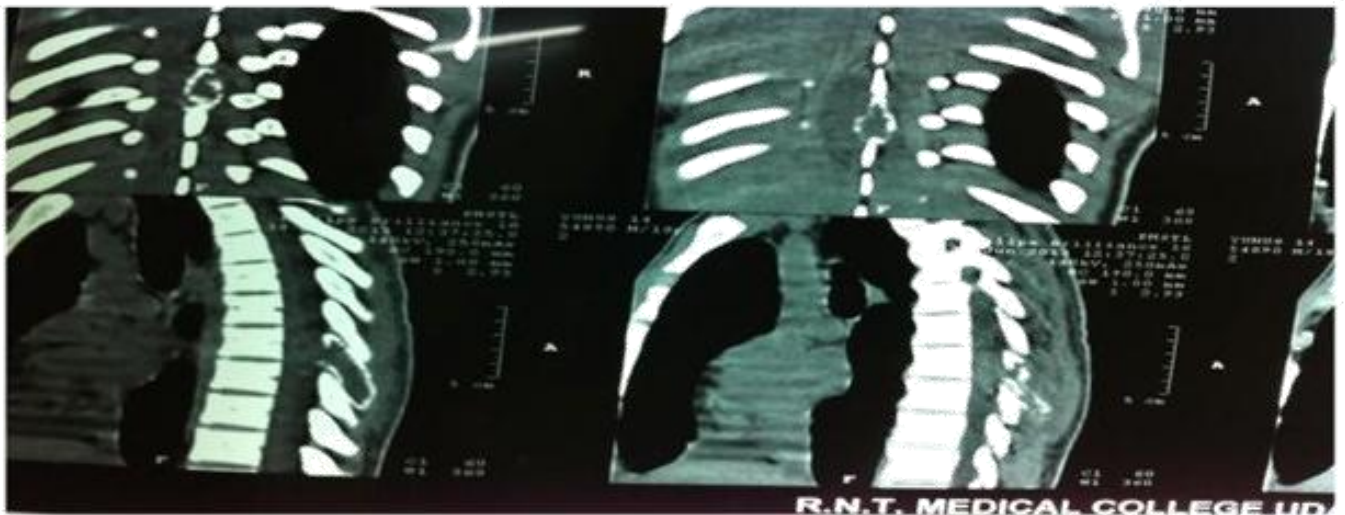
which may be followed by fracture and collapse (vertebra plana). Less frequently, osteosclerosis of a vertebral body, pedicle or other posterior osseous elements, is observed. Extension of the process into the paraspinal and intraspinal tissues is well described. There may be extension to an adjacent vertebral body with loss of height of the intervening intervertebral disc and spread to the pedicles, laminae and transverse and spinous processes. Calcification in the soft tissue is a comparatively rare manifestation (9%). The differential diagnosis of Ewing's sarcoma in the vertebral column includes pyogenic or tuberculous osteomyelitis, lymphoma, leukemia, histiocytosis and metastatic disease



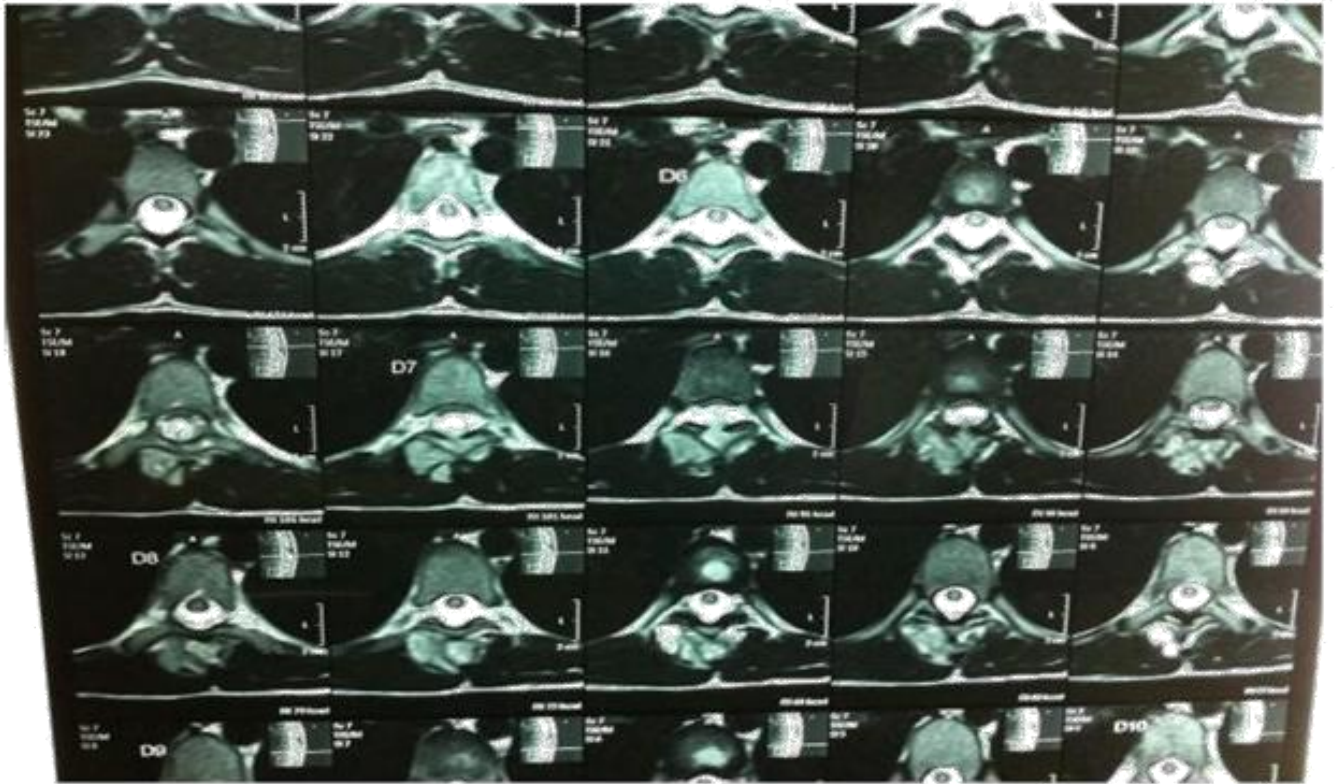
Axial NCCT Image;-lytic expansile lesion in posterior elements of D7 vertebrae



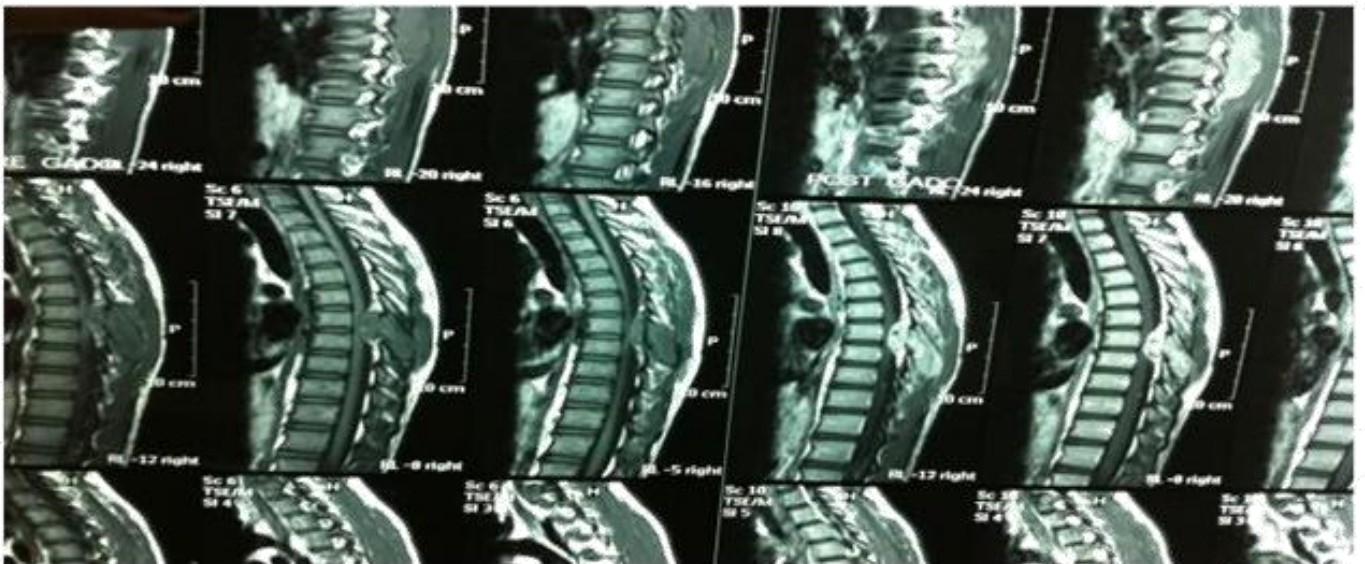
Axial CECT image ;-lytic lesion of D7vertebrae posterior elements with heterogeneously enhancing soft tissue component



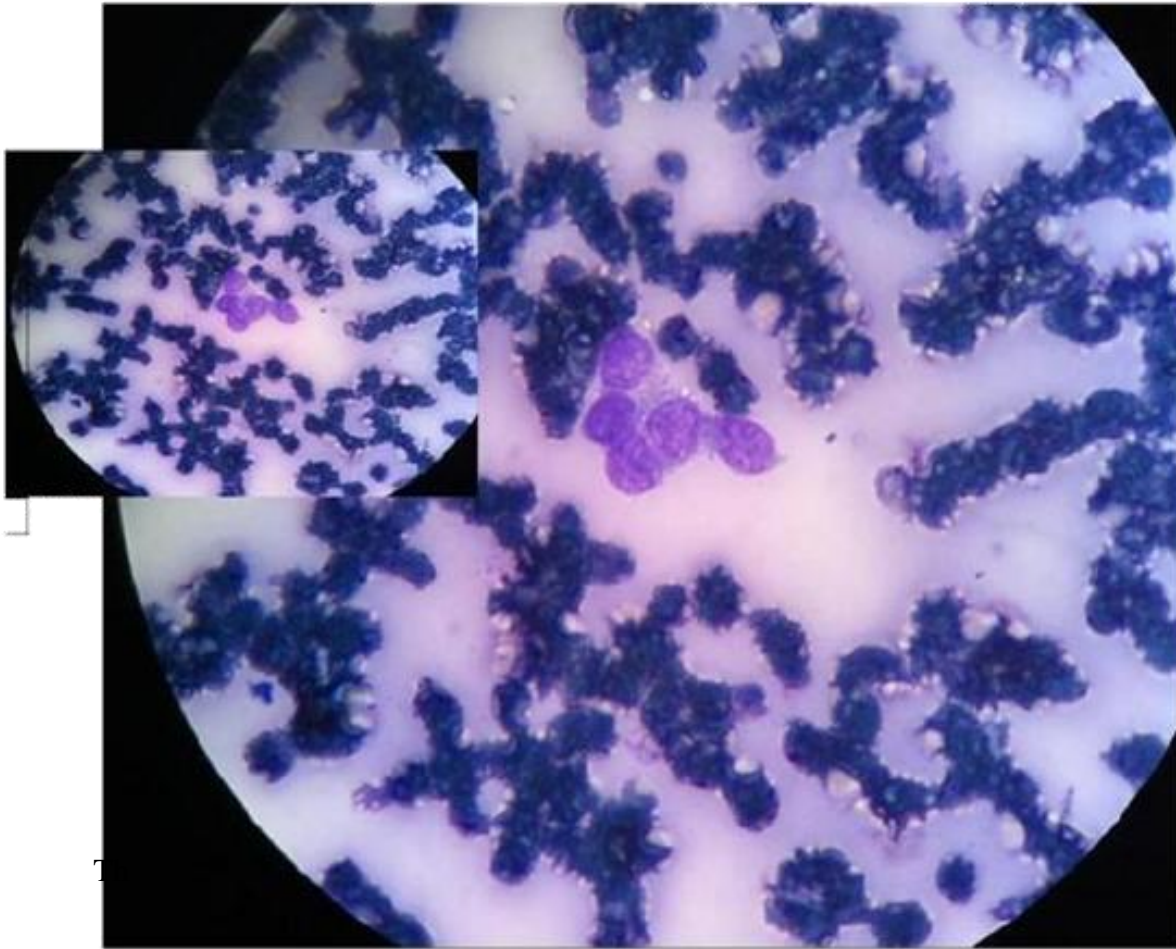
CECT CORONAL AND SAGITAL IMAGE:-expansile D7 posterior element with soft tissue component



AXIAL. MR image:-EXPANSILE LESION WITH SOFT TISSUE COMPONENT AND EPIDURAL EXTENTION CAUSINGSEVER SECONDARY CANAL STENOSIS



Post GADO SAG.MR IMAGING:- EXPANSILE LESION WITH EPIDURAL AND POSTERIOR PARASPINAL COMPONENT



The smear shows many large clumps of small round cells with scanty and indistinct cytoplasm. Overall findings are suggestive of a round cell tumor, possibly Ewing's sarcoma.

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