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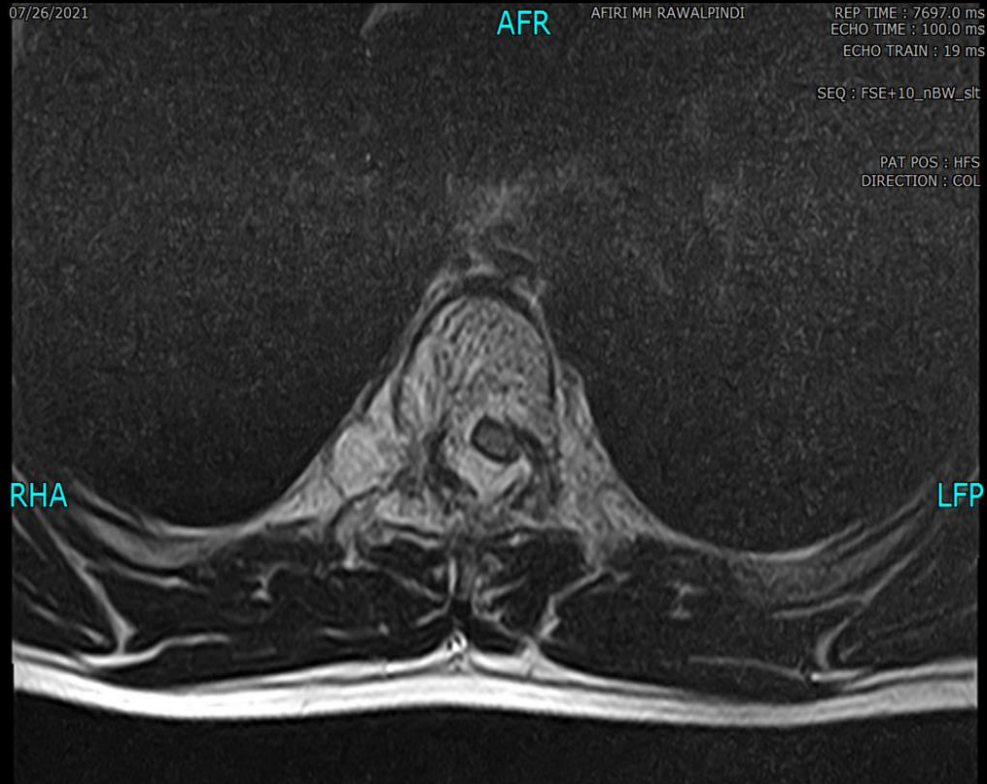
**Abstract:** Asymptomatic vertebral hemangiomas are a common incidental finding on MRI, in middle age groups, not requiring treatment or surveillance. However, in 0.9-1.2% these lesions cause symptoms due to aggressive features like bone expansion, extension into neural arches, erosion through cortex and large extra-osseous soft tissue components, uncommonly seen in pediatric patients. Characteristic imaging features, though uncommon for age group help to arrive at definitive diagnosis and help formulate safe management plan.

### CASE REPORT

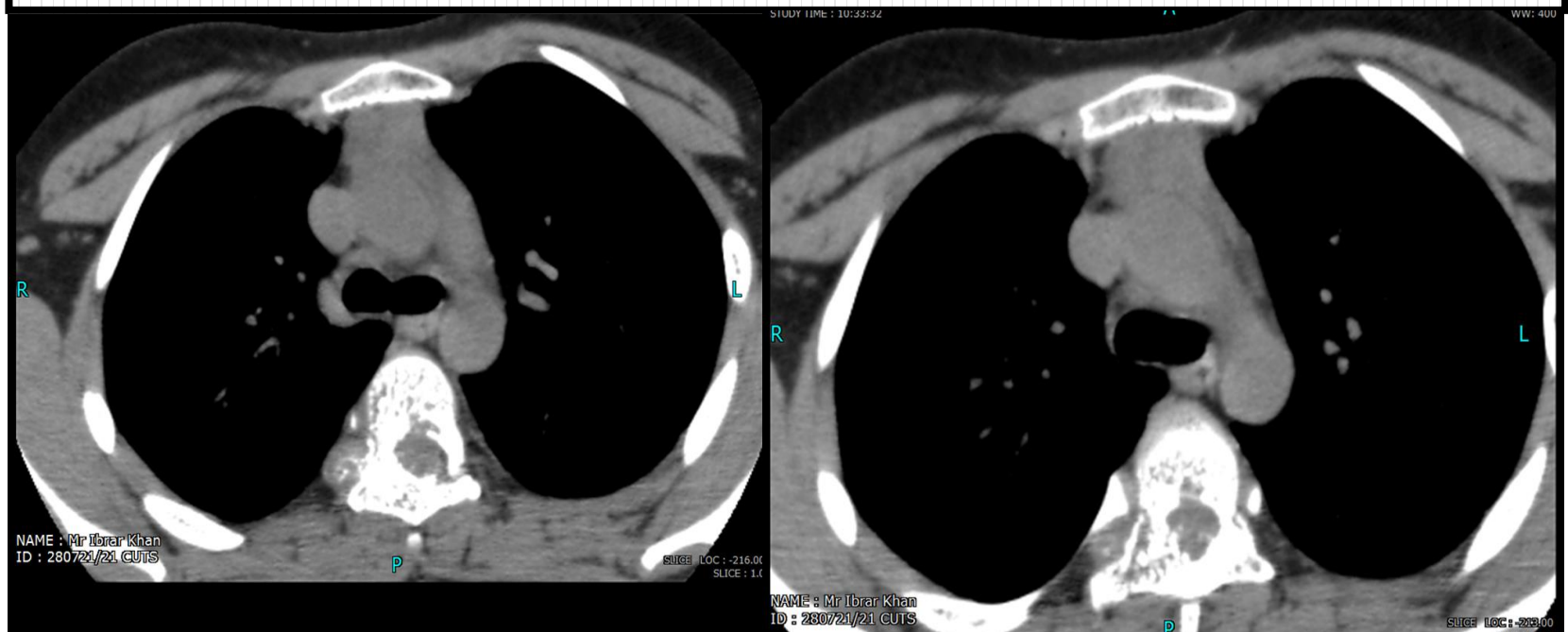
Our patient , a 12 year old boy presented with three months history of difficulty in walking with spastic paraparesis and reduced power in both legs . MRI spine revealed abnormal hyperintense signals in DV4 vertebral body, on T2WS/STIR with internal flow voids, with posterior extension into neural arches. Extraosseous extension in form of an epidural soft tissue mass was noted causing compression on spinal canal. Soft tissue component was also noted extending into right paravertebral region. Typical "polka dot" appearance was noted on Computed Tomography with expansion of neural arches and soft tissue component showing internal calcific densities or phleboliths. Patient underwent biopsy and H/pathology revealed vertebral Hemangioma.



MRI of the thoracic spine without and with contrast. An infiltrative mass throughout the DV4 vertebra is noted that is T2 hyperintense (A) with multiple internal T2 hypointensities likely reflecting a combination of trabeculae and flow voids. There is a significant extraosseous epidural component (straight arrow) with resultant narrowing of the vertebral canal and cord compression (B). The mass results in diminished T1 marrow signal (B) and shows hyperintensity on STIR (C). Avid post contrast uptake is noted (D) Complete cut off is noted on MR Myelogram (E) .Axial T2WS (F) shows extension of abnormal areas into posterior elements, right paravertebral region and large epidural component right laterally, displacing and compressing the cord



Axial computed tomography images (a, b) showing thickened vertically oriented trabeculae in D4 vertebral body having polka dot and corduroy cloth appearance, showing extension into and expanding the lamina and pedicles ,. Epidural extraosseous extension into the spinal canal and the paravertebral soft tissues is noted with internal phleboliths-



(a)Pre embo tumour blush

(B)Post embo no tumour blush

### MANAGEMENT



**Follow up**  
Patient showed a progressive course of improvement and now being able to walk on his own

**Post embolization spinal surgery**  
Patient was transferred to spinal surgical OT where his posterior spinal fusion was done. There was minimal blood loss due to embolization

**Pre op embolization**  
Embolization of vertebral hemangioma was done post diagnosis by using 300 microns embospheres particles by IR department with no complications encountered as mentioned in the pic

**Conclusion**  
Aggressive vertebral hemangiomas can cause compressive myelopathy, Hemangiomas can present with devastating spinal cord compression. Due to their typical asymptomatic nature, Vertebral Hemangiomas may fail to be included in the differential in such cases. Preoperative diagnosis is beneficial as well as preoperative embolization can be performed that significantly minimizes risk of intraoperative bleeding . Diagnostic and interventional radiology play a significant role in patient management as a multi disciplinary team approach