

## PATIENT PRESENTATION

- 19-year-old male with no past medical history
- Presented to the hospital with weakness over a 2-week period progressing to the inability to walk for the past 4 days
- Manual muscle testing revealed weakness in the bilateral lower extremities.

## WORKUP

- MRI revealed a heterogeneous, multicystic mass extending from T10 through T12.
- Neurosurgery urgently operatively resected the mass
- Pathology revealed a highly cellular neoplasm containing a mixture of cells with spindled cytology and multinucleated giant cells with blood-filled cystic spaces and multifocal regions of osteoid formation
- Pathology confirmed the diagnosis of a solid variant of an aneurysmal bone cyst

## MANAGEMENT AND OUTCOMES

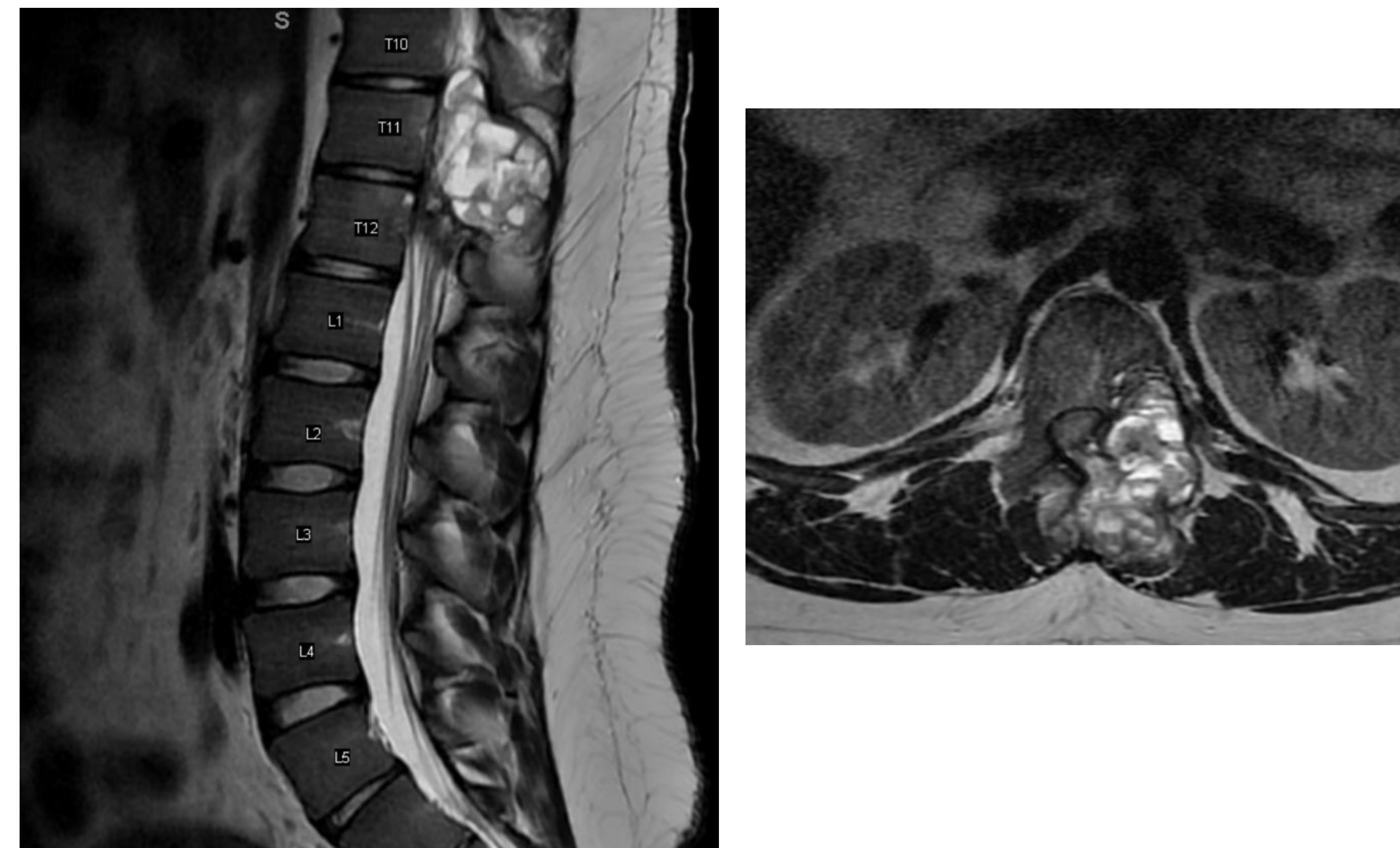
- Patient was admitted to acute inpatient rehabilitation hospital focusing on strengthening exercises and ADLs
- Over the course of 2 weeks of inpatient rehabilitation, the patient progressed in his mobility from the inability to ambulate to ambulating 200 feet independently with a rolling walker.



## FIGURES



**Figure 1:** Thoracolumbar spine X-ray showing no acute fractures, normal vertebral alignment, and no degenerative changes.



**Figure 2:** Sagittal (A) and axial (B) views of a T2-weighted MRI of the thoracolumbar spine. A large, heterogenous, multicystic mass arising at lateral T11 and T12 (A) extends into the vertebral bodies and the spinal canal displacing and compressing the dural sac and its contents centrally and to the right (B) with enhancing tissue around a cystic foci that displaces the dural sac measuring approximately 57 x 38 x 74 mm (AP, LR, CC).

## DISCUSSION

- Aneurysmal bone cysts are rare, with the solid variant being even less common<sup>1,2</sup>
- It is diagnosed most commonly in adolescents during periods of skeletal growth; the median age of discovery is 13 years old with 90% found before age 30<sup>1,2</sup>
- In the spinal cord, they can present as low back pain with progression to lower extremity weakness and other neurologic deficits<sup>3</sup>
- Radiologic diagnosis of solid aneurysmal bone cysts can be difficult as it can appear similarly to a malignant bone tumor<sup>3</sup>
  - X-ray can be unrevealing
  - MRI can reveal classically “fluid-fluid levels”
- Biopsy with histopathology confirms the disease and differentiates pathology from other cancerous lesions<sup>3</sup>
- Recurrence after resection is rare<sup>1</sup>

## CONCLUSIONS/TAKE HOME POINTS

- The solid variant of an aneurysmal bone cyst is a rare variant that can be mistaken for malignancy radiologically
- It should be included in the differential for young patients with the common complaint of low back pain.

## REFERENCES

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3. Rodallec MH, Feydy A, Larousserie F, et al. Diagnostic imaging of solitary tumors of the spine: What to do and say. *Radiographics.* 2008;28(4):1019-1041. doi:10.1148/rg.284075156