

An Original Paper

# Vertebral Aneurysmal Bone Cyst

## A Case Report and Review

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### ABSTRACT

The case of a 16-year-old boy with an aneurysmal bone cyst of the fourth lumbar vertebra and a herniated nucleus pulposus of the L4-5 disc is presented. Symptoms included progressive lower back pain and bilateral lower extremity weakness. Roentgenographic studies were consistent with a vertebral aneurysmal bone cyst with an expansile lesion that compromised the neural canal and an L4-5 herniated nucleus pulposus. Surgical treatment included tumor excision, L4-5 discectomy, lumbar decompression, and posterolateral and anterior lumbar fusion. Postoperatively, the lower back pain and lower extremity symptoms resolved. The patient continues to do well at 1-year follow-up.

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An aneurysmal bone cyst is a lesion of uncertain etiology that was originally described by Jaffe and Lichtenstein<sup>1</sup> in 1942. Theories suggest that the tumor is either a vascular disturbance of bone (eg, skeletal hemangioma, arteriovenous malformation) or that it may arise as an abnormal reparative process.<sup>2,3</sup> Dahlin<sup>4</sup> reported an incidence of 1.4% in 2,000 primary bone tumors. Less than 100 cases of vertebral involvement have been described in the English literature.<sup>5</sup>

### CASE REPORT

A 16-year-old boy presented to Tulane University Hospital (New Orleans) with a complaint of progressive lower back pain. The patient related the onset of pain to an automobile accident that occurred 1 year prior to admission. He described the pain as a dull, poorly localized sensation that had worsened