A 39-year-old woman of Greek origin was hospitalized with a 23-day history of progressive numbness and weakness in both legs. The patient had had a left thoracotomy for a parasitic disease, with partial resection of the left sixth rib 14 years earlier in Athens.

Neurologic examination revealed a bilateral sensory deficit below T6, diminished vibratory and proprioceptive sense, marked weakness in the lower extremities, and exaggerated knee and ankle jerks with clonus.

On admission, a chest roentgenogram (Fig 1), thoracic spine tomograms, a myelogram, and a CT scan at the level of T6 (Fig 2) were obtained.
Diagnosis: Recurrent Echinococcal Disease Involving the T5, T6 and T7 Vertebra

The chest roentgenogram shows a left paraspinous mass at the T5-T7 vertebral level. A portion of the left sixth rib had been resected 14 years earlier. At that time, the patient had a four-year history of an asymptomatic left lung mass which proved to be echinococcal disease. Tomograms (Fig 3) show bony destruction involving T6 and T7. The CT scan confirmed these findings and a myelogram showed an extradural block at the T6 level.

At surgery, an extensive extradural lesion causing cord compression from T5-T7 was found. The lesion was removed and a posterior laminectomy with an anterior decompression and spinal fusion was performed.

The differential diagnostic considerations for a paraspinous mass with bony destruction and an extradural block should include both infection and neoplasm. Osteomyelitis of the spine with an abscess can be caused by a bacterial or fungal agent or by tuberculosis. Neoplasms such as a neurogenic tumor, multiple myeloma, primary spinal tumor or metastasis could also present in this manner. Echinococcal disease should be suspected with patients from an endemic area.

Echinococcal disease is caused by the tapeworm *Echinococcus granulosis* which lives in the intestine of dogs, the definitive host, and is transmitted to the intermediate hosts, man and sheep, by ingestion of contaminated feces. After ingestion, the ova penetrate the intestinal wall, enter the portal system, and migrate from there to the liver, lung, kidneys, bones and brain. The ova then change into cysts. By far, the liver and lungs are the most often affected sites. Bony involvement is seen in 1 percent of cases. Echinococcal disease is endemic in the Middle East. It is rare in the United States, with about 50 new cases reported per decade.

The echinococcal cyst can be asymptomatic for years and organ impairment is chiefly due to the mechanical pressure. The enlarging cyst can erode into blood vessels, bile ducts and bronchi and can rupture causing anaphylaxis, multisystemic dissemination and abscesses.

Fifty percent of bony involvement affects the spine with the pelvis as the second most common site. Two important radiologic signs are that of rib involvement and a round, discrete soft tissue mass. Cord compression and an extradural block on the myelogram can be seen.

The diagnosis is often difficult to make preoperatively in this uncommon disease, but it is essential to have a high index of suspicion with patients from endemic areas. This knowledge can aid the surgeon in planning an approach such that multisystemic dissemination during surgery is prevented.

REFERENCES

1 Bloomfield JA. Protean radiological manifestations of hydatid infestation. Aust Rad 1966; 10:330-43