Vertebral echinococcosis leading to spinal cord compression

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To the Editor,

It was with great interest that we read the article by I. Lotfinia et al. [1], ‘‘Intradural extramedullary primary hydatid cyst of the spine’’ published in the 2012 June issue of *European Spine Journal*. As noted by the authors, cystic echinococcosis (CE) is an infectious disease caused by the larval forms of the cestode *Echinococcus granulosus*. Further, as seen in their case report, recurrence of intradural hydatid disease is rarely reported. However, it should be emphasized that one of the major problems of CE is the frequency of relapses, especially in case of vertebral involvement, and long-term follow-up is thus mandatory [2].

We report the case of a 30-year-old man originating from Algeria, North-Africa, who was admitted for signs of spinal cord compression. He was living in France for 5 years and was employed as a merchant of livestock feeding. Symptoms initiated 4 months before with unresolved pain in the lower limbs. At admission, he presented with spastic paraplegia staged grade C according to the ASIA scale. Hematological and chemical analyses were within normal values. Serological tests for hydatid disease were inconclusive. Magnetic resonance imaging (MRI)

showed paravertebral cystic mass invading the spinal canal with erosion of vertebral bodies (Fig. 1). Examination of computerized tomography (CT) scan of the thoraco-abdominal region and of MRI of the brain ruled out other visceral involvement. The lesion was regarded as a hydatid cyst. Medical treatment with albendazole was initiated before exploratory surgery. A decompression was performed with removal of the spinal cyst formation. It was completed with corporectomy and instrumental fusion of T5 and T6. Histological examination revealed an amorphous acellular cuticular lesion with cyst wall containing scolices. Chemotherapy was continued for 2 years post-operatively. Eighteen months later, the patient presented with a relapse revealed by motor impairment in the left lower limb. MRI of the spine confirmed a recurrence of the *Echinococcus* cyst located at T7. A T7 laminectomy was performed. At 2-year postoperative follow-up examination, partial leg monoparesis was still unresolved.

The present case was classified as a hydatid cyst of the vertebrae with paravertebral lesions extending to spinal structures [3]. Since the bone lesions develop slowly, the diagnosis of vertebral CE is often made at a late stage of the infection. MRI and CT are useful tools for vertebral hydatid diagnosis and are effective for monitoring the course of the disease during follow-up [4]. Optimal therapeutic option for spinal CE is radical resection of the affected bone with wide margins completed with prolonged anti-helminthic treatment. Unfortunately, treatment issue remains challenging because complete resection is often not possible. Albendazole is the first-line drug to prescribe. It should be administered long-term on continuous or cycling regimen and may be used alone or in combination with other agents, i.e. praziquantel or nitazoxanide [5]. As illustrated by our case, spinal CE recurrences are frequent and causative of debilitating neurologic complications.

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Fig. 1 Sagittal T2-weighted MRI image shows a heterogeneous intense vertebral mass with erosion of T6, intra-spinal invasion and medullar compression

Moreover, despite multiple extensive spinal surgical approaches, partial or complete neurologic deficit may persist and illustrates both the difficulty in management and prognosis issues as hallmarks of spinal hydatidosis.

Conflict of interest None.

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