

Multifocal Echinococcosis with Spinal Cord Compression Mimicking Metastatic Disease: A Case Report

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Abstract

Even this high rate in the Mediterranean basin, multi-organ echinococcosis was exceptional. Outside typical hepatic involvement, malignancy was a first suggested diagnosis within extensive lesions. We report a rare case of a 74-year-old man suffering from hydatid disease mimicking spine and pulmonary metastasis.

Keywords: Hydatid disease; Infiltration; Computed tomography

Introduction

Bone hydatid disease is a rare localization of echinococcosis and is estimated at 0.4% to 5% Di Gregorio M. Multifocal involvement is rare and occurs in less than 2% even in endemic countries. Diagnosis of hydatid disease is based on epidemiological risk, radiologic findings, and serology, but is not usually easy in atypical localization. We report an unusual case of multi-organ hydatidosis which showed diffuse lung infiltration with spinal cord extension.

Case Report

A 74-year-old man from the rural area, farmer, has had mechanical low back pain for the past 6 months, which has been progressively worsening for the last month, becoming inflammatory with prolonged morning stiffness. Moreover, he reported the appearance of bilateral low limb paresthesia and weakness. Otherwise, he was no smoker and hasn't a fever or weight loss. Spine mobility was limited and painful. The neurological examination revealed muscle weakness, an inability to rise from a chair without urinary incontinence. Inflammatory markers were increased (ESR=60, C-reactive protein=14 mg/l) with a normal absolute eosinophil count. Spine radiographs were normal. The chest radiograph showed multiple pulmonary nodules of varying sizes Di Gregorio M. Metastatic disease was highly suspected. Thereafter, the patient underwent Computed Tomography (CT) scanning of the thorax and the abdomen. CT scan revealed multiple scattered pulmonary nodules with cystic density without liver lesions. Magnetic resonance imaging of the spine revealed multiple thin-wall cysts imaging, hyperintense on T2-WI and hypointense on T1-WI of T12 and L1 with extension to epidural space, left foramina and soft tissue. The mass of the soft tissues had multi-septate and vesicles suggesting hydatid spondylitis Di Gregorio M. Serodiagnosis using Enzyme-Linked Immunosorbent Assay (ELISA) confirmed hydatid disease. The patient was given oral Albendazol eat a dose of 400 mg twice daily and is currently in follow-up.

Discussion

Hydatid disease is common in the Mediterranean region and occurs usually in the liver and lungs. Pulmonary site is exceptionally primitive and is frequently seen secondary to the inoculation of a hepatic cysts. Otherwise, all organs can be involved such as cardiac Di Gregorio M, ovary Di Gregorio M and bones. Vertebrae is affected in half of bone involvement and generally located in posterior space preserving intervertebral disc Di Gregorio M Extension of hydatid cysts in the spinal cord lead to neurologic complication Di Gregorio M. Multi-organ localization is reported in a few cases Di Gregorio

M. In them, the diagnosis was difficult because atypical presentation and lacks of specific imaging findings. In our patient, a synchronic revelation of spine and lung involvement without liver cysts exhibited the metastatic disease. MRI, the gold imaging tool, helped differentiate between hydatid lesions and malignancy. Therefore, biopsy of cysts was dangerous and could lead to local, severe allergic reactions or even anaphylaxis Di Gregorio M. Medical treatment with albendazole and surgical intervention can improve clinical symptoms Di Gregorio M Unfortunately, the prognosis of spine hydatidosis remains poor. Recurrence rate and dissemination risk are very high.

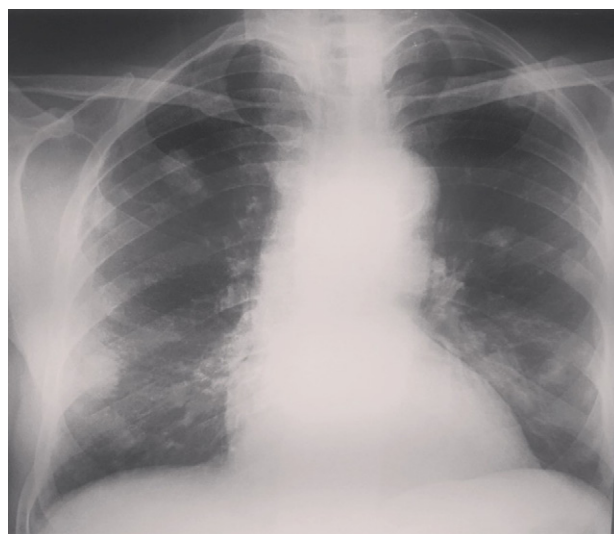


Figure 1: Chest radiographs show multiple well-defined lung nodules.

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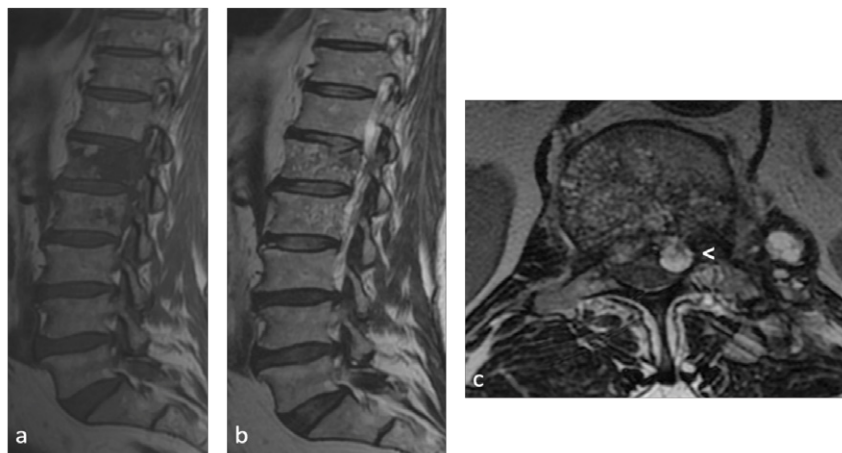


Figure 2: Sagittal T1-WI (a), Sagittal T2-WI (b) and axial T2-WI (c) show multiple thin-wall cysts (high signal intensity on T2-WI and low signal intensity on T1-WI) of T12 and L1 vertebrae with extension to epidural space, left foramina (arrow-head) and soft tissue (arrow).

Conclusion

In summary, echinococcosis is still endemic in several areas. Pulmonary involvement can occur without hepatic disease. Hydatid cyst is characterized by diverse clinical and radiological presentations and by the possibility of multiple locations within the lung parenchyma, and bone. Spine echinococcosis is a rare site of hydatid disease. Its imaging features mimic metastases. The medical treatment is often disappointing. The preventive aspect is essential. It is mainly based on cutting the parasite cycle by treating dogs and destroying the corpses of infested sheep.

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