Case Report

Spinal hydatid with meralgia paresthetica in a female: A rare case report

Yeshwant Lonkar, Amar Amale, Sourya Acharya, Pankaj Banode¹, Meenakshi Yeola²

Departments of Medicine, ¹Radiology and ²Surgery, Jawaharlal Nehru Medical College, DMIMS University, Sawangi (Meghe), Wardha, Maharashtra, India

Corresponding author: Dr. Sourya Acharya, Department of Medicine, JNMC, DMIMS University, Sawangi (Meghe), Wardha - 442 004, Maharashtra, India.
E-mail: souryaacharya@yahoo.co.in

Abstract

Meralgia paresthetica presents as tingling sensation in the antero-lateral aspect of thigh. It occurs due to compression of the lateral cutaneous nerve of thigh. Proximal spinal lesions may present as meralgia paresthetica due to radiculopathy. We present a rare case of spinal hydatid with meralgia paresthetica.

Key words: Lateral cutaneous nerve, meralgia paresthetica, radiculopathy, spinal hydatid

INTRODUCTION

Hydatid disease or hydatidosis, caused by Echinococcus granulosus, is the most widespread, serious human cestode infection in the world. The liver and the lungs are most frequently involved, and hydatid cysts of other organs are unusual. Bone involvement is reported in 0.5-4% of the cases, and 50% of those are seen in the spine.¹ Therefore, vertebral hydatidosis is uncommon; however, in endemic areas, physicians should be vigilant in case of relevant patients with mild symptoms, in whom the clinical scenario may well masquerade as other common low-back problems. We present a rare case of primary thoraco-lumbar extradural hydatid cyst presenting as large swelling mimicking lipoma with meralgia paresthetica like syndrome.

CASE REPORT

A 45-year-old female presented with swelling in the thoraco-lumbar region which had been present for last 1 year but had enlarged rapidly over the last 3 months. She denied any recent weight loss or pain associated with the mass. She also denied any fever or blunt trauma to the area. Apart from its size, it did not give any problem except that since the last few weeks she had started experiencing tingling sensation over her anterior-lateral aspect of left thigh and slight weakness in her left lower limb resulting into a limp. She was otherwise in good health except for mild hypertension for which she took no medication. On general examination, she was afebrile and hemodynamically stable. Local examination, revealed a large swelling, of size 30 × 25 × 25 cm in the thoraco-lumbar region which was soft, lobulated and non tender. Its border was well defined. It extended proximally upto the 8th thoracic vertebrae and distally upto 5th lumbar vertebrae. There were no signs of inflammation. The overlying skin was freely mobile with no venous engorgement. The mass was mobile in all directions [Figure 1]. Other systemic examination was normal. Neurological examination did not reveal any significant finding except for sensory loss over the antero-lateral aspect of left thigh and grade 3 power in the flexors of left hip joint. Straight leg raising test was negative. An initial diagnosis of lipoma was considered and radiological investigations were planned. Local USG of swelling was suggestive of hydatid cyst in subcutaneous tissue with membranes, septations and daughter cysts within the cystic cavity. No primary in abdomen or lungs was found.
X-ray lumbo-sacral spine anteroposterior (AP) view was suggestive of destruction of spinous process and left pedicle of L1-L2 vertebrae [Figure 2]. Further Magnetic resonance imaging (MRI) of thoraco-lumbar spine was planned which revealed a well defined lesion with daughter cyst involving subcutaneous tissue of back, paraspinal muscle, post neural arch segment of D12-L2 with extradural extension into spinal canal at D12-L2 level [Figure 3].

The patient underwent T12 to L2 laminectomy with total cyst excision with membrane. Extradural space showed multiple pearly white cysts compressing the dural sac. All the cysts were extirpated without rupture. The operative field was soaked with hydrogen peroxide wetted patties for a few minutes and then washed with normal saline. Histopathological examination confirmed the diagnosis of hydatid cyst [Figure 4]. Postoperative period was uneventful. Albendazole was given for a period of three months. There was no further weakness and tingling sensation over the lower extremity after 1 month of treatment.

Also, there was no recurrence during the follow-up period of two years.

**DISCUSSION**

Echinococcosis is a widespread disease that appears during the evolution of the parasite Echinococcus granulosus. Hydatidosis of the spine was first described by Churrier in 1807.[2] Human being are affected by the eggs found in feces excreted by animals. Primary vertebral hydatid disease without any other systemic involvement can occur with direct porto-vertebral venous shunts. The cyst can be located epidurally and may be single or multiple. Generally, spinal hydatid cyst disease present with radicular symptom or symptom of cord compression.[2] Proximal lesions such as lumbar radiculopathy, lumbar disc herniation, and spinal stenosis have been reported to cause meralgia paresthetica-like syndrome. These proximal lesions directly injure the respective spinal nerve roots and cause a constant compression of the nerve roots.[3,4] There are no pathognomonic signs and symptoms of this disease. For this reason it is often misdiagnosed initially.
as tuberculosis of the spine, spinal tumor or disc herniation.[1]

Computed tomography, Magnetic resonance imaging (MRI) and Ultrasonography (USG) with their recent advances have become a very sensitive diagnostic tool. USG shows the membranes, septations, and daughter cysts within the cystic cavity while MRI helps in localization as well as to note the extent of cord compression.

Treatment is essentially surgical and operative procedure of choice is decompressive laminectomy. However, due to the invasive nature of infestation in the spine, total removal to achieve complete eradication becomes a needful. Overall, a recurrence rate of 30-40% is described and there is a correlation between cyst localization and recurrence.[1,2] To prevent recurrence it has been recommended that hypertonic saline solution be used during surgery. Mebendazole and Albendazole with their established lethal effect on secondary E. granulosus cyst can be used in the pre-, peri- and post-operative periods.[1,2]

**CONCLUSION**

Primary hydatid cyst disease of the skeletal muscle must be considered among the differential diagnosis of atypical vertebral lesion although spinal hydatidosis without other organ involvement is uncommon. When a cystic lesion is found on radiological evaluation, hydatid disease must be considered in countries where the disease is endemic. Total excision of cyst with an intact wall is best treatment followed by albendazole for minimum of 3 weeks. This case is an atypical presentation of spinal hydatid with meralgia paresthetica.

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