

Unusual Presentation of Primary Iliac Bone Hydatid Cyst- Case Report

Dr. Gopal verma¹, Dr K. R. Patond² & Dr Pramod Jain³.

¹Senior Resident, Dept of Orthopaedics, MGIMS, Sevagram.

²Director Professor, Dept of Orthopaedics, MGIMS, Sevagram.

³Professor, Dept Of Orthopaedics, MGIMS, Sevagram.

Abstract: A 23 year old female patient presented with rt hip pain and difficulty in walking since 2 years. Plain radiograph revealed a osteolytic lesion .USG abdomen and pelvis show hypo echoic collection in muscular plane of right iliac fossa. MRI pelvis shown tubercular osteomyelitis of rt ilium bone.. Patient was planned for surgical resection and biopsy suspecting? Infective pathology. Curettage was done and the cystic mass was found to be of hydatid cyst, which was later confirmed with histopathology study. After a year of follow-up, the patient didn't show any sign of recurrence of the hydatid cyst.

Key word – Iliac bone, Hydatid cyst, Echinococcus

Introduction- Human hydatid disease is caused by Echinococcus granulosus¹. The liver is the most common site affected by hydatid disease (50–70%) followed by the lung, spleen, kidney, bones, and the brain. Hydatid disease of the bone is very rare and occurs in 1–2.5% of cases, which in half of cases affects the spine². Primary bone involvement is unusual, but typically occurs at more vascularized sites, such as the vertebrae, long bone epiphyses and ilium. The larval form reaches the bone, penetrates the spongy tissue and grows in the direction of least resistance, infiltrating and damaging the tissue like a tumour. The prognosis is poor when bone is involved, even in patients who undergo extensive medical and surgical treatment¹.

Here, we report a case of isolated hydatid cyst in the ilium without extra-osseous involvement.

Case Report- A 23 years old female presented with pain in right hip joint along with difficulty in walking of two year duration. She also presented with right flank swelling. Loss of appetite or history of tuberculosis was not explained.

In physical examination, there was no associated fever and in local examination showed non tender swelling in right flank area .Right hip joint movement revealed limited internal rotation without any pain. In abdominal examination,

no swelling or mass could be felt and spinal tenderness or deformity was not observed.

On plain radiography of the pelvis, osteolytic lesion was present in the right iliac bone. (Fig-1) .USG abdomen and pelvis show hypo echoic collection in muscular plane of right iliac fossa ? Infective origin. MRI pelvis show tubercular osteomyelitis of rt ilium bone. (Fig-2). FNAC show proteinaceous material with no cellularity.



Figure. 1 : Multiple osteolytic lesions right iliac bone

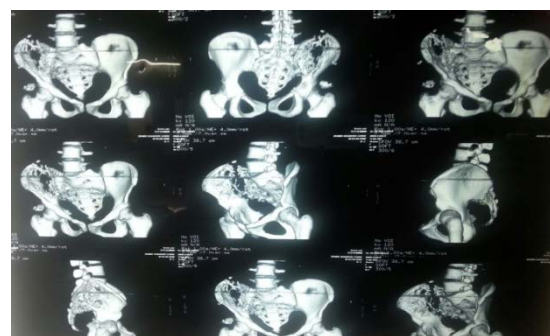


Figure 2: MRI of patient with primary iliac bone hydatid disease

The patient underwent surgery. Hydatid cysts were detected intraoperatively and excision of the multiloculated cystic mass and hydatid vesicles done. Intravenous Dexamethasone is injected during the operation to prevent allergic shock.



Figure 3: Macroscopic hydatid cyst

Macroscopic examination of the surgical specimen showed a hydatid cyst containing clear fluid and daughter cysts. The cuticular layer of the cyst wall was evident (Fig-5). Histological examination showed the acellular layer, the germinal layer containing daughter cysts and the scolices, abundant fibrous and hyalinized tissue surrounding multiple small cysts and areas of bone death and necrosis were observed

Post-operatively albendazole 400mg twice daily given for 3 wks. At 1 year follow-up, there were no signs of recurrence.

Discussion - Man is an accidental host in the life cycle of *Echinococcus granulosus*. Human infestation occurs when the ova are swallowed. Cysts are found in the liver (55–60%), lungs (30%), kidneys (2.5%), heart (2.5%), bones (2%, mostly in spinal column), muscles (1%), brain (0.5%) and in other organs (1.5%). The lesions in bone may mimic a tumor. In man, infection is usually acquired in childhood. The symptoms present several years after exposure and it may take five to 20 years before a diagnosis is made. Of 532 cases of echinococcosis reviewed in Lebanon, 12 were of pelvic hydatid disease³. Primary pelvic hydatid cyst may present with abdominal symptoms related to compression of the rectum and urinary tract⁴. In some cases, primary pelvic hydatid cyst causing sciatica and foot drop have also been reported⁵. Present case is rare in literature. The diagnosis of hydatid disease is made intraoperatively, because of absence of specific symptom and apparently good health of patient. There is no sensitive and specific test for cystic hydatid disease. All precautions must be taken to prevent dissemination and seeding of the surgical field. Deaths have been reported due to anaphylactic shock resulting from spillage during excision or biopsy after a mistaken diagnosis of a retroperitoneal tumour⁶. So in endemic regions, because of the diversity of its presentation, hydatid disease should always be in the differential diagnosis list of any growing destructive mass. Diagnostic techniques such as radiography, ultrasonography, computed tomography, magnetic

resonance imaging and immunologic tests are of value.

Complete surgical excision is the treatment of choice for osseous hydatid disease.

In bone hydatid disease in addition to surgical removal, medical treatment is required. Anthelmintic agents (e.g., albendazole and mebendazole) are usually used before and after the surgery. The first choice of treatment is albendazole due to its greater absorption from the alimentary canal and higher plasma levels⁷.

In conclusion, it seems that differential diagnosis of bone hydatid disease should be suspected in patients with chronic bone pain in an endemic area.

Conflicts of Interest - None

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