An unusual location of hydatid cyst, the iliac bone: A case report

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Abstract

Iliac bone involvement is an exceptional location for hydatidosis. The clinical evolution is insidious and the appearance of clinical signs is late after rupture of the cortical bone and invasion of the soft tissues, making its management cumbersome and difficult.

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Key clinical message :

Iliac bone hydatid cysts are exceptional but aggressive due to the absence of a pericyst limiting the extension of the lesions. Early and adequate management can improve the prognosis and prevent recurrence.

Key words :

Hydatidosis, bone involvement, surgery.

INTRODUCTION :

Iliac bone involvement is a rare location of hydatid cysts. Diagnosis is often based on imaging and immunological reactions, and treatment involves surgical removal, sometimes supplemented by anthelmintic medical treatment (1).

Bone hydatidosis accounts for 0.5-2% of all hydatid sites and is dominated by the vertebral site (2).

The iliac bone accounts for only 16-25% of bone locations (3).

The clinical course of bone hydatidosis is slow, with clinical signs appearing after rupture of the cortical bone and invasion of the soft tissue (1).

We present the case of a 47 year old patient operated 10 years ago for a hepatic hydatid cyst and consulted for pelvic pain related to a hydatid location in the left iliac wing.

2. CASE PRESENTATION :

A 47 year old patient, from a rural area, presented to the emergency departement suffering from pelvic pain with limping on walking for six months. He was operated 10 years ago for hydatid cyst of the left liver: he had a resection of the protruding dome.

The patient had no fever. Abdominal examination showed tenderness in the left iliac fossa.

X-ray of the pelvis showed osteolysis of the left iliac bone

(figure 1: black arrow).

Pelvic CT scan showed an osteolytic remodelling of the left iliac wing associated with a large mass of 10 * 8 cm in diameter with a liquid structure, with a multiloculated appearance, fusing along the left iliac muscle **(figure 1: red arrow).**

Figure 1: radiologic findings

Abdominal ultrasound and chest X-ray were normal.

Hydatid serology was positive.

The patient was operated on via the left Leriche approach, with resection of the protruding dome, evacuation of the contents of the cyst, which was superinfected with gelatinous material **(figure 2)** , curettage of the iliac wing to evacuate the daughter vesicles, and drainage using an irrigation-suction system.

Figure 2: intraoperative imaging of the cyst contents

The immediate postoperative course was uneventful and the patient was discharged home on the seventh postoperative day. Albendazole was given to the patient for four month with good tolerance. The 24-month follow-up did not show any recurrence but the patient still had a limp when walking due to the significant osteolysis.

DISCUSSION :

Hydatid cysts are a common parasitic disease in endemic countries. It frequently occurs in the liver and lungs. Bone localisation is rare with a frequency of 1 to 2% (4).

Pelvic involvement which occurs by haematogenous route, concerns the iliac bone in 16.4%. It has a poor functional prognosis because of its extension to the coxofemoral joint and more rarely to the sacrum (5).

The clinical signs of hydatid bone cysts are not specific and depend on location of the cyst. They are dominated by pain. The clinical examination is poor and often shows a discrete lameness on walking (6).

The standard X-ray remains the reference examination for the diagnosis. It most often shows poorly limited areolar lytic images of the areola, with the classic "honeycomb" appearance without any reaction or regional decalcification (6)

The interest of ultrasound is essentially to explore the soft parts in search of an abscess. It contributes, as does the chest X-ray, in search of associated visceral lesions which may help in the diagnosis. CT and MRI specify the bone involvement, assess the locoregional extent and constitute an excellent means of monitoring the evolution of the disease (7).

Despite the various therapeutic methods relapse rates after partial removal are very high (8).

its treatment is difficult due to frequent recurrences, especially in certain locations such as ilium and hip, which accounts for 2% of hydatid cysts in bone, and radical surgery remains morbid and difficult to achieve (9).

Despite the various therapeutic methods relapse rates after partial removal are very high.

The hydatid bone cyst is invasive and aggressive due to the absence of a pericyst limiting the extension of the lesions, intra-osseous hydatid cysts only exceptionally calcify, whereas their extension into the soft tissue may calcify, and management remains difficult and cumbersome (10).

Conservative surgical treatment under cover of prolonged medial antiparasitic therapy may be an alternative to morbid surgery in cases of very high risk and for extensive lesions (9)

Currently, microwave ablation may be a useful therapeutic alternative in the treatment of patients with hydatid bone cysts, in order to prevent the disease from relapse (11).

4. CONCLUSION :

The hydatid bone cyst is invasive and aggressive due to the absence of a pericyst limiting the extension of the lesions.

It destroys the bone, blows and ruptures the cortex and extends into the adjacent soft tissue.

In the case of morbid surgery, conservative treatment with albendazole remains an important therapeutic alternative but the best treatment for hydatidosis is prevention.

5. Conflicts of interest

None declared

6. Data Availability Statement

Personal data of the patient were respected. No data is available for this submission.

7. Acknowledgments

Published with the consent of the patient's parents.

8. Authors' contribution

Y Kallel conceived the idea for the document and contributed to the writing and editing of the manuscript. Z Hadrich contributed to the writing and editing of the manuscript. R Zarg Laayoun and H Beji reviewed and edited the manuscript. M Bouassida and H Touinssi contributed to the literature review, manuscript writing, editing, and review of the manuscript.

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Figures

Figure 1: Radiologic findings

Figure 2 : Intraoperative imaging of the cyst contents