

# HYDATID CYST OF THE SACRUM : A CASE REPORT

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### INTRODUCTION :

Hydatid cysts are a common parasite in endemic countries, frequently found in the liver and lungs. Although bone echinococcosis is rare, with a frequency of only 1-2%, Diagnosis is often delayed due to the lack of specificity and clinical latency that characterise this disease. It is based on a combination of clinical, biological and radiological factors, and only pathological examination can confirm the disease. Imaging is used to confirm the diagnosis, assess lesions and monitor disease progression. This report presents an exceptional case of a hydatid cyst of the sacrum, illustrating its clinical and radiological features, as well as the therapeutic difficulties associated with this condition.

### CASE HISTORY:

we present a case of sacral hydatidosis in a 71-year-old female patient with no prior medical history. The patient complained of pelvic pain lasting for five months, with no accompanying fever, trauma, or general health issues. Additionally, the patient reported experiencing constipation and difficulty with defecation.

### METHODS :

A radiological work-up was ordered, which revealed heterogeneous bone lysis in the coccyx on the standard X-ray (figure 1). The CT scan of the pelvis showed an expansive, poorly defined osteolytic lesion of the sacrum with predominantly right lateral extension and invasion of the gluteus maximus and medius (figure 2). The MRI revealed an aggressive sacrococcygeal tumour mass infiltrating and invading the right gluteus maximus (figure 3). The initial clinical and radiological findings indicated a primary or metastatic malignant tumour. A negative extension work-up was conducted, which included a thoraco-abdominal CT scan, cervical ultrasound, mammography, X-ray of the cervical spine (chordoma), bone scan, specialist gynaecological examination, and tuberculosis work-up. The patient underwent a posterior sacral biopsy, which revealed a multivesicular cystic lesion consistent with a hydatid cyst of the sacrum (figure 4), subsequently confirmed by anatomopathological examination. The lesion was almost completely excised and the cystic bed was sterilised using hypertonic serum and hydrogen peroxide, with the installation of a drainage system.

### CONCLUSION AND RESULTS :

The immediate postoperative period was uneventful, with resolution of the signs of compression.

At the 10-month follow-up, the patient showed no signs of recurrence, and the cystic bed had progressively ossified.

### DISCUSSION :

Hydatidosis is a zoonotic disease caused by the larval form of *Echinococcus granulosus*. Humans become accidental hosts by ingesting taenia eggs. The larvae are released in the duodenum, cross the wall, and pass through the portal system to the liver (1). Bone involvement is rare, occurring in only 0.5 to 2.5% of all hydatid cases (1), the blood-borne route is the most common, but it is also possible for primary soft tissue involvement to lead to secondary bone invasion. Spinal involvement typically occurs in the vertebral body due to portovertebral shunts. The dorsal spine is affected in 80% of cases, followed by the lumbar spine (18%) and the cervical spine (1%) (2). Hydatid cysts can cause pain, local soft tissue swelling, and pathological fractures. In our patient, the cyst compressed the rectum.

Hydatid serology is typically negative and only becomes positive during the stage of soft tissue invasion (2, 4). The radiological appearance is non-specific, initially consisting of multiple localized lacunae that gradually become confluent, creating a grape-like appearance (5).

CT scans and magnetic resonance imaging (MRI) can be used to better define bone lesions, assess extension to adjacent structures, and guide surgery. Prolonged monitoring is also enabled, but in this case the CT scan was not very conclusive.

Hydatid vesicles appear in T1 hypersignal and T2 hypersignal on MRI in their typical form (6,7,8).

The differential diagnosis should consider tuberculous spondylodiscitis, metastases, and aneurysmal cysts.

The treatment for osseous echinococcosis currently involves medical and surgical interventions. The medical treatment aims to reduce cyst size, sterilize their contents before surgery, and treat small cysts that may go unnoticed postoperatively.

The prognosis for this disease is often burdened by frequent recurrences and involvement of adjacent soft tissue, as surgical excision is often incomplete. The best treatment for this disease remains active prevention (1).

## CONCLUSION :

Hydatidosis of the sacrum is characterised by a poor clinical presentation and an insidious course, which can lead to delayed diagnosis. Medical imaging can provide a precise assessment of the lesions, enabling surgical resection to be planned. Health education in endemic countries is the most effective way of limiting the considerable damage caused by this parasite.

## DECLARATIONS :

The authors confirm that they have no conflicts of interest associated with this publication.

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Consent Statement :

Written informed consent was obtained from the patient for publication and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

## Ethical Statement :

our study has been approved by the medical ethics committee of our hospital IBN EL JAAZR in Kairouan

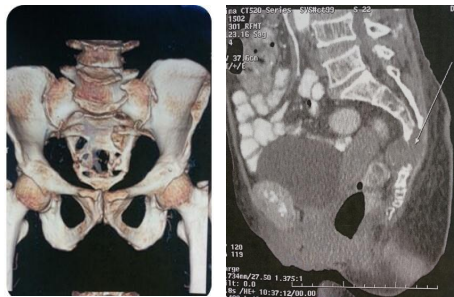
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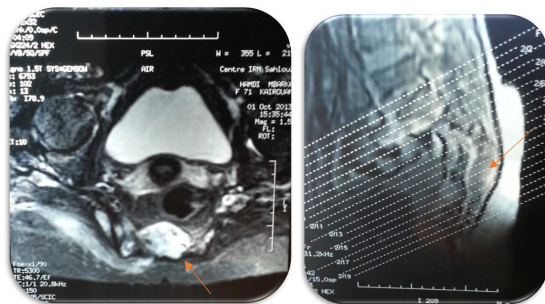
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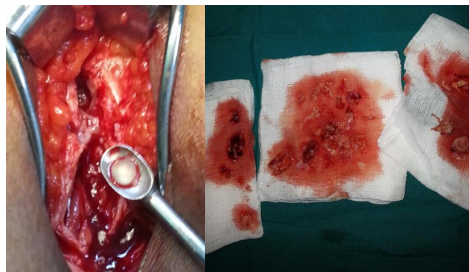
**Figure 1 : Pelvic x-ray with coccygeal incidence showing bone lysis of the coccyx**



**Figure 2 :** The CT scan of the pelvis reveals an osteolytic lesion of the sacrum that is expansive and poorly defined. The lesion extends mainly to the right side and invades the gluteus maximus and medius.



**Figure 3 :** MRI of the pelvis shows an aggressive sacrococcygeal tumour infiltrating and invading the right gluteus maximus muscle.



**Figure 4 :** A multi-vesicular cystic lesion suggestive of a sacral hydatid cyst was discovered during the biopsy.