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Case Report

Right iliac bone pathological fracture mimicking acute appendicitis

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ABSTRACT

Simple bone cyst (SBC) also known as unicameral bone cyst is a benign, radiolucent bone lesion that is seen commonly in childhood. These lesions are usually found incidentally although pain and swelling can be seen. The most common complication is a pathological fracture, and this is often the cause of presentation. Here, we present a 22-year-old male with right lower quadrant pain due to SBC related pathological fracture of right iliac bone which is mimicking acute appendicitis.

1. Case Report

A 22-year-old male presented to the emergency department with the complaints of right lower quadrant pain and tenderness for last 3 h. Patient had no history of trauma or abdominal surgery. The physical examination revealed right lower quadrant tenderness and guarding. Psoas sign and obturator sign were both positive. Laboratory tests showed slightly elevated white blood cell (WBC) count (11×10^3/uL; normal range 4–10 $\times$ 10^3/uL) and normal C-reactive protein level (0,4 mg/dL; normal range 0–0,5 mg/dL). Other laboratory tests were within normal limits. Acute appendicitis was suspected, and abdominal ultrasonography (US) was performed. The appendix was not visualized on US, but US revealed minimal pelvic free fluid. Abdominal x-ray was obtained, and a well-defined, radiolucent lesion in the right iliac bone was detected (Fig. 1). For further evaluation, intravenous contrast enhanced computed tomography (CT) of the abdomen was obtained and CT showed a well-defined, radiolucent bone lesion compatible with SBC. Pathological fracture was also detected in the right iliac bone due to the lesion (Fig. 2). Imaging findings of the lesion were evaluated as compatible with ABC. Surgical curettage and bone grafting were performed, and the lesion was confirmed as SBC, histopathologically.

Simple bone cyst (SBC) also known as unicameral bone cyst is a benign, radiolucent bone lesion that is seen commonly in childhood. SBC usually found incidentally although pain and swelling can be seen. The most common complication is a pathological fracture, and this is often the cause of presentation, as in our case [1,2].

Appendicitis is the most common surgical disease. The signs and symptoms of acute appendicitis may be confusing. Ultrasound is the

Fig. 1. Abdominal x-ray shows a radiolucent lesion leading to expansion on the superior part of the right ilium (*white arrows*).

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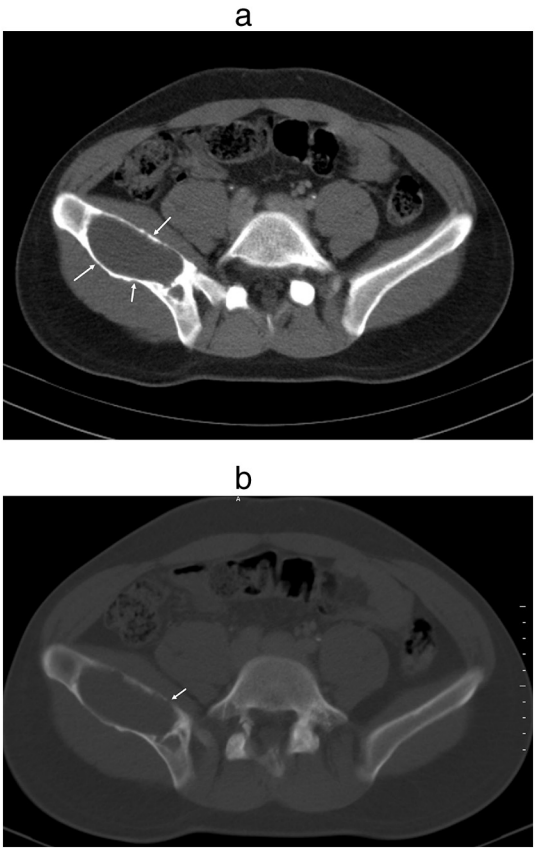

Fig. 2. a) Axial contrast enhanced CT scan of the abdomen with soft tissue window settings (window width of 300 Hounsfield units (HU) and window level of 50 HU) shows (*white arrows*) a large, lytic, expansile bone lesion in the right iliac bone. **b)** Axial contrast enhanced CT scan of the abdomen with bone window settings (window width of 2000 Hounsfield units (HU) and window level of 300 HU) shows endosteal scalloping and pathological fracture in the right iliac bone due to the lesion (*white arrow*).

first-line diagnostic method for patients with suspected appendicitis. However, appendix may not be visualized in US [3]. Abdominal x-ray images should be carefully evaluated for the presence of extraintestinal abdominal pain causes, such as ureteral calculus, soft tissue or bone lesions. The diagnostic accuracy of CT is high, and it also shows additional gynecological, urologic, orthopedic and gastrointestinal pathologies. In the presence of unexplained abdominal pain, CT is a problem-solving method and prevent unnecessary surgical exploration, as in our case [4]. Our case demonstrates that, in patients presenting to the emergency department with abdominal pain, abdominal x-ray images should be carefully examined for the presence of bone lesions. It should be kept in mind that, lower quadrant pain due to bone lesions and pathological fractures may be seen, and this may prevent unnecessary surgical interventions.

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