

BRUCELLOSIS OF THE HIP: A DESTRUCTIVE JOINT DISEASE AND A PERSISTENT MEDICAL CHALLENGE, ABOUT ONE CASE**Reda Lafdil*, Tarik El Mountassir, Karim et Hammiri, Reda Fekhaoui, Moncef Boufettal, Reda Allah Bassir, Jalal Mekkaoui, Mohamed Kharmaz, Moulay Omar Lamrani and Mohamed Saleh Berrada**

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ABSTRACT

Brucellosis is a zoonotic disease mostly transmitted to humans through consumption of unpasteurized dairy products and can lead to a systemic disease with any organ involvement. Osteo-articular brucellosis is a rare localization of the disease and which requires particular awareness especially due to the possibility of inducing bone destruction.^[1,2]

KEYWORDS: Hip- Brucellosis.**CASE PRESENTATION**

Our case is about a 13 years old rural boy without any particularity in his previous medical history except a contact with sheep.

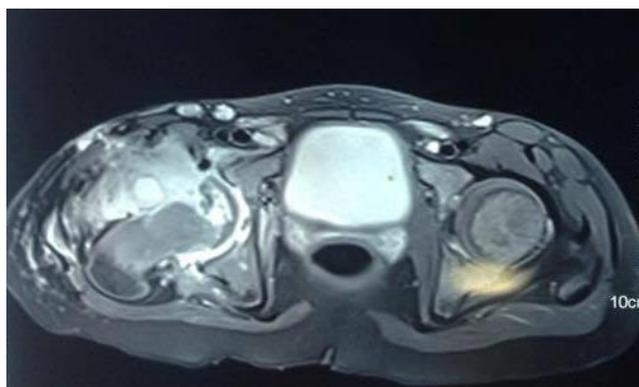
He suffered from hip pain, severe in intensity and aggravated by movements at the hip, and was only partially relieved with medication in total apyrexia, without any trauma. The evolution led in 3 days to complete functional disability of the hip with worsening of clinical signs in addition to high grade fever (39°) with chills.

Our clinical examination showed fever with pallor but there was no swelling in any other joint of the body. The

hip's active and passive movements were painfully restricted within a 40° mobility range. The rest of the examination didn't show any abnormalities.

The patient was hospitalized for further investigations. Inflammatory markers including leucocytes rate and C reactive protein (CRP) were raised. The X-rays of the pelvis were normal.

Ultrasound showed hips effusion so we completed with MRI which confirmed the effusion and pointed out the existence of a thickening of synovial tissue of the hip in addition to enhancement of the femur's neck after Gadolinium injection.

**Fig. 1: Effusion and thickening of synovial tissue.**

Our strategy was to make a surgical drainage of the hip through an anterior arthrotomy (Hueter approach) and to take samples for bacteriological and

anatomopathological exams. An antibiotic therapy was initiated based on Gentamicine and Ofloxacin.

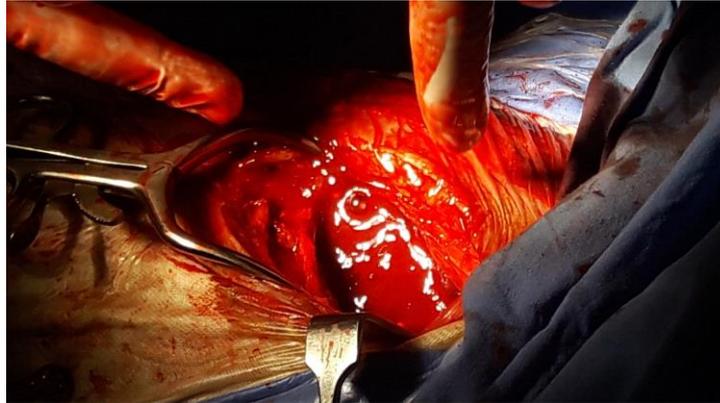


Fig. 2: Anterior approach to drain the hip + anapath and bacteriological exams.

The results of the bacteriological exam showed *Brucella Melitensis* so we added Doxycycline.



Fig. 3: Bacteriological exam.

Outcomes

The evolution showed the appearance of fistula with pus running out.



Fig. 4: Clinical aspect showed fistula with pus.

The patient had a second surgical revision. An enlarged anterior approach was used and a T shaped incision through the capsule gave us an access to the joint which showed flakiness of the femur's neck in association with

multiple cortical erosions. A further exploration of the joint showed an epiphyseal gap of 1cm which stretches on the femoral calcar.

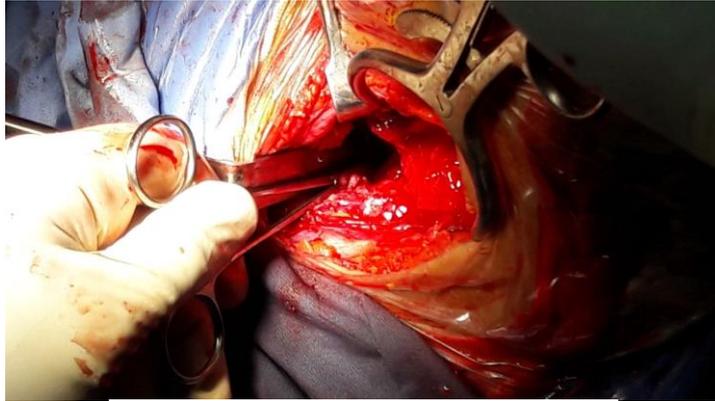


Fig. 5: Large anterior approach for revision.

The new bacteriological samples were negative but the anatomopathology showed granulomatous osteoarthritis.

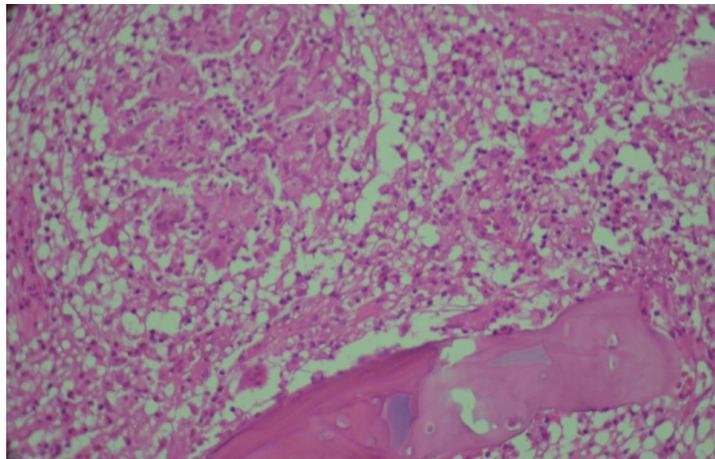


Fig. 5: Anatomic-pathological exam showing a granulomatous infection.

The MRI exam showed the persistence of the epiphyseal lacuna in addition to the appearance of multiple new ones.



Fig. 6: Multiple lacuna addition on MRI.

The patient's hip is still painful with total functional disability and positive inflammatory markers. Postoperatively, the patient was continued on the same intravenous antibiotics and the lower limb was put on skin traction.

A one-year evolution from the second surgery showed a regression of the hip pain in addition to clearing of biological markers.

DISCUSSION

Human Brucellosis is among the most common zoonotic diseases and has an incidence of over 500 000 worldwide with a prevalence of more than 10/100 000 population in some endemic countries.^[3,4]

Brucellosis is still an endemic infection and a challenging health problem in many parts of the world. Although musculoskeletal involvement is seen in a large proportion of patients, the disease is often diagnosed late or misdiagnosed due to its subtle nature and rarity, and lack of awareness among clinicians. It may present as a mild febrile illness with few localizing signs, or as a severe multisystem disease.^[5,6]

In our case, the evolution led to a progressive joint destruction despite surgical and medical care which was initiated early. But the main question in such cases remains about the place of arthroplasty and its ideal timing especially for young patients such as our patient.

Physicians should consider brucellosis as one of the differential diagnoses of arthritis, irrespective of whether they are in endemic or non-endemic areas. Detailed travel and contact histories of patients are essential in order to establish an early diagnosis. In cases of osteoarticular involvement, early surgical interventions together with antibiotics are recommended to prevent further destruction of the joints.

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