Septic Hip Dislocation Secondary to Tuberculosis

Lamine Sarr1*, Joseph Diouf2, Badara Dembélé1, Alioune B. Diouf3, Alioune B. Gueye4, Souleymame Diao5, Mouhamed Daffé1, and Charles B. Diemé1

1Aristide Le Dantec Teaching hospital; Dakar, Sénégal
2Grand Yoff General Hospital; Dakar, Sénégal
3Ordre Of Malte Hospital Center; Dakar, Sénégal

Abstract

Tuberculosis rages an endemic disease in developing countries; hence it is a real public health problem. Among the forms of extra pulmonary tuberculosis, tuberculosis of the hip is second to spine tuberculosis. Its late diagnosis is a source of complications with anatomical and functional sequelae. The hip dislocation remains a severe form of Tuberculous Coxitis. We report the case of 37-year-old patient with septic hip dislocation secondary to late diagnosed hip tuberculosis. This delayed diagnosis is at the main determinant of severe disabling functional sequelae.

Keywords: Hip tuberculosis; Septic dislocation; Late diagnosis

Introduction

Osteoarticular tuberculosis is secondary to primary pathology in lungs, lymphnodes or any of the viscera. Through the hematogenous route, the bacteria reach either to synovium or bone. Its late diagnosis is the cause of severe functional sequelae. We report a case of hip tuberculosis diagnosed at the stage of hip dislocation.

Case Report

A patient of 37-years old and his name was Mirs F D, consulted for an inflammatory swelling of the root of the right thigh for 4 months in a context of fever without chills or sweat with progressive alteration of the general status. His past medical history was:

• Admitted in Pneumology department for pneumonia without history of tuberculous contact before his admission. The bascilloscopy performed during this period was negative.
• Hip injury concomitant to the onset of symptomatology is reported.

On his admission, he presented with:

• Altered general status.
• Inflammatory swelling of the right thigh with fluctuating erythematous lesion at the proximal third of the thigh with frank pus at the puncture.
• Inflammatory homolateral inguinal satellite lymphadenopathy.
• The hip joint and the lung fields were free.

Biological reports showed a normochromic, normocyticanemia of 8.1 g/dl with thrombocythemia. The C-Reactive Protein level was at 384 mg/l. The Tuberculin Intra Dermo Reaction (TIDR) and the tuberculous bascilloscope examination were negative as well as the retroviral serology test. Anteroposterior X-rays of the thorax and the pelvis were normal (Figure 1). The management consisted in extensive debridement and drainage in the operating theater clearing out 200 milliliters of frank pus by a senior intern doctor. The adjuvant treatment with probabilist broad-spectrum antibiotics was then initiated. The postoperative outcomes were simple with regression of the pain and complete healing. The follow up revealed at one month later the onset of the right hip pain with a limp worsened by walking.

The examination findings were:

• Hip tenderness on mobilization;
• Productive fistula on the outer side of the right hip with a whitish liquid mixed with lumps;
• Altered general status.

The Pelvic X-ray showed the overall narrowing of the hip joint space. The bacteriology examination isolated Klebsiella pneumoniae. The tuberculous tests were negative. Joint arthrotomy washout with adjuvant intravenous antibiotic was then performed. The outcome was the recurrence of the symptomatology with the onset of a vicious attitude of the right lower limb, a bilateral pulmonary condensation syndrome and a swollen right unilateral painful leg.

The biology showed an inflammatory anemia. The TIDR was positive to 17mm. Isolation of acido-alcohol resistant bacilli in sputum was positive at three crosses. The chest X-ray showed an image of hematogenous smiliary tuberculosis. The pelvic X-ray showed a dislocation of the hip joint with irregular areas of lysis at the femoral head (Figure 2). The venous Doppler ultrasound revealed the aortic and right iliac venous thrombosis.
A second joint open arthrotomy washout with evacuation of caseum. The antituberculous chemotherapy was conducted according to the local protocol. It consists of taking four molecules (rifampicin, isoniazid, etambutol and pyrazinamide) for two months followed by two molecules (rifampicin, isoniazid) for eight to ten months. The postoperative course was simple with the weight gain of 14 kg, a recovery of appetite but with persistence of a vicious attitude of the limb with pseudo-elephantiasis swelling (figure 3). The diagnostic time remains as long as approximately 11 months because of two negative bacilloscopic examinations.

Discussion

Osteoarticular tuberculosis represents 2–5% of all tuberculosis [1–3]. The involvement of the peripheral joints essentially concerns the knee and the hip [4,5]. The risk of complications and sequelae caused by arthritis tuberculosis is more important than that of infectious arthritis caused by common germs due to its chronic and destructive characters. The hip dislocation in tuberculosis is described as the after math sequelae of hip tuberculosis [6–8]. It is exceptional in the evolutive tuberculosis as described in our case. The cases reported in the literature are generally isolated cases [6]. Tahasildar et al. [8] reported the case with bilateral hip involvement where as Xin et al. [7] reported a series of 29 cases.

Osteoarticular Tuberculosis, due in general to the Mycobacterium tuberculosis a form of paucibacillary tuberculosis involving Koch Bacillus with slow multiplications. The hematogenous contamination especially explains more often the negativity of articualr punctures. The affection begins with inflammation of the synovium. The dislocation would be due to the capsular hyperlaxity and/or the synovial hypertrophy than to the accumulation of pus. This phenomenon creates a coxofemoral diastasis with rupture of its main attaches notably the round ligament. This migration of the femoral head is progressive but can be accentuated by an inadequate treatment [6,8]. The outcome may be the appearance of lytic lesions as described in our case.

The tuberculosis past history remains the main risk factor even if it is association with an evolutive pulmonary tuberculosis is inconsistent and found in less than 50% of cases [9]. A history of hip injury described in our patient could also trigger the reactivation of the Mycobacterium Tuberculosis (MT) although controversial [2]. The immuno suppression is known to trigger tuberculosis. Sixty percent of adults suffering from osteoarticular tuberculosis are living with Human Immunodeficiency Virus (HIV). However the osteoarticular locations in people infected by HIV are very rare [10]. There is no specific sign that can demonstrate a tuberculous origin.

The described clinical patterns are essentially anatomical like 1) Junta-articular form with its two entities: osteitis of the femoral neck and Trochanteritis Tuberculosis. 2) Strumous abscess form which is a sequelae of classic advanced hip tuberculosis as described in our clinical case.

The time between the onset of symptoms and the diagnosis long enough ranging from thirteen to twenty-one months according to studies. The diagnosis of osteoarticular tuberculosis is bacteriological and/or anatomo pathological. The X-ray findings are very variable and not specific. The osteolytic lesions are the most frequent, as found in our patient with the lysis of femoral neck and head with sub-dislocation which is a stage four (IV) of radiological classification of David Chaussé.

The indolent nature of extra-spinal bone tuberculosis often explains the late diagnosis at the stage of joint destruction. This diagnosis maybe earlier with the use of the polymerase chain reaction [3]. The medical treatment is well codified and the protocol varies according to the countries [3]. Its duration is ten to twelve months in Senegal and can go up to eighteen months in other countries [3].

Surgery consists of performing osteotomy of the pelvis or hip in young children or even arthroplasty in the elder children in case of major destruction [7]. For the adult, it will be a synovectomy and debridement if the medical treatment does not respond or hip replacement therapy in case of major destruction [11]. We believe that the total hip replacement therapy is the ideal indication for our patient.

Conclusion

The hip dislocation is rarely indicative of tuberculosis. Nevertheless, it can occur early during the course of active tuberculosis; hindering the functional prognosis, it opens the way to the prosthetic surgery to regain a mobile and painless hip joint. The early diagnosis of tuberculosis by polymerase chain reaction or the gene expert test and a well-conducted medical treatment avoids the occurrence of its complications.

Conflict of Interest

No conflict of interest to disclose.

References


*Corresponding author: Lamine Sarr, Orthopedics and Trauma Surgery Department, Aristide Le Dantec University Teaching Hospital, P.O. BOX: 3001, Pasteur Street, Dakar, Sénégal, Tel: 221-776-528-823; E-mail: drlaminesarr@yahoo.fr

Received Date: February 08, 2018, Accepted Date: April 26, 2018, Published Date: May 03, 2018.

Copyright: © 2018 Sarr L, et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.