

# Case of Unusual Abscess Localization in Lumbar Pott's Disease

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## Abstract

In Pott's disease, cold abscesses usually sit and spread along the psoas muscle. This case concerned a 60 years old man who came to us with bilateral lumboradicular pain and a swelling of inguinal area and the anterior part of the left thigh. We found a 2 years long lasting story of low back pain complaint. Physical examination showed good general health status, stiffness of lumbar spine, a left psoitis and no neurological deficit. CT scan going downward from the lumbar spine to the pelvic region and femoral limb with coronal reconstruction demonstrated a huge disco-vertebral destruction of L2-L3 with translation, and bilateral paramedian psoas abscess migrating subfascially toward Scarpa triangle and cleaving anteriorly mainly muscles of the left thigh. After 12 months medical treatment, the evolution has been favorable with clinical cure. The localization of the cold abscess in the left thigh anterior muscles compartment is uncommon. It is why we report this case.

## Keywords

Lumbar Pott's Disease, Thigh Abscess, Developing Country

## 1. Introduction

Pott's disease (PD) is the most common form of osteoarticular tuberculosis which occurred in 35% - 55% of patients [1]. While in developed countries, it affects mainly the elderly, risk individuals and immigrants from tuberculosis endemic areas; the PD favored by the HIV pandemic infection, continues to be a public health problem affecting a young population in low-income countries [2].

In this context, the diagnosis which is often late, relies largely on a cluster of clinical elements including cold abscesses that are formed in the sheath of the psoas muscle. The localization of the cold abscess in the left thigh anterior muscles compartment is uncommon. It is why we report this case.

## 2. Case Report

It was a 60-year-old farmer who had consulted for back pain of increasing intensity that was resistant to analgesic and anti-inflammatory treatment and had been evolving for at least two years.

The appearance in recent months of a poorly systematized bilateral lomboradiculalgia associated with a swelling of the left groin gradually increasing in volume and then extending to the two-thirds antero-superior left thigh, and discrete gait disorders had motivated a specialized consultation in neurosurgery.

In his antecedents, he had not been vaccinated with BCG and there was a notion of tuberculous contagion. Indeed, her son was being treated for pulmonary tuberculosis and his sister had died a year earlier from the same pulmonary location. The clinical examination noted a good general condition, a psoas sign with left knee flexion, lumbar gutter pain filling with caused by palpation of the L2 to L4 spinal cord, and loss of lumbar lordosis.

A fluctuating cold swelling of the left inguino-femoral region extending to two-thirds anterosuperior of the thigh was noted (**Figure 1**). There was no neurological deficit and the Lasègue was normal at (90°). In biology, the rate of sedimentation was accelerated and the direct examination of sputum was negative. The tuberculin intradermal reaction was positive. The culture of the abscess puncture product was negative. The X-ray had revealed a reversal of lordosis, vertebral settlements especially in L2 and L3 with a tight and fuzzy pinch of this disk (**Figure 2**).

The abdominal ultrasound revealed hypoechoic images at the level of the two psoas fusing to the left in the inguinal region and the anterior aspect of the thigh, suggestive of abscesses.

CT scan of the spine revealed somatic L2, L3 geodes associated with collection images on the psoas (**Figure 3**) and the antero-internal and antero-external compartment muscles of the upper third of the left thigh (**Figure 4**). The chest x-ray was normal. The treatment was medico-surgical with prescription of anti-tuberculosis drugs for one year according to the guidelines of the national program of fight against tuberculosis associated with a flattening of the abscess with drainage of pus of two liters of caseum. Immobilization by a brace had completed his treatment. The abscesses have dried up and normalized biology. The patient was considered cured after one year because there was no recurrence.

## 3. Discussion

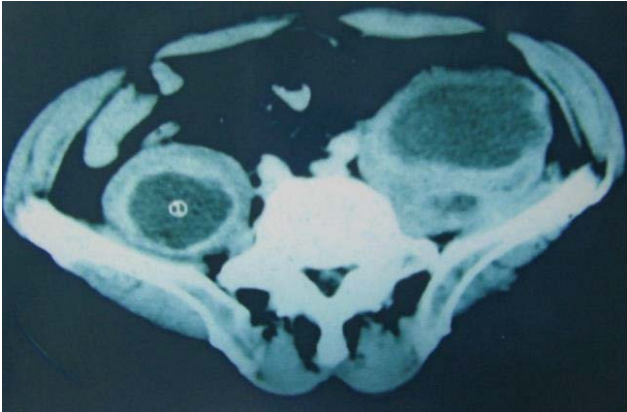
The World Health Organization has estimated that 1.5 million people died from tuberculosis in 2014 [3]. The most common form of extrapulmonary tuberculosis is spinal tuberculosis, which occurs in 1% - 3% of all tuberculosis [4]. The



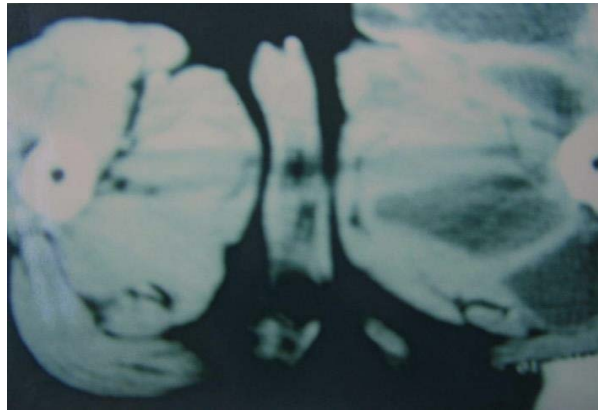
**Figure 1.** Left thigh three quarter picture indicating swelling.



**Figure 2.** Lumbar spine X-ray: disc nip and mirrored geodes.



**Figure 3.** Lumbar spine CT scan (axial section): bilateral abscess of the psoas.



**Figure 4.** Left thigh CT scan (axial section) revealing abscess.

incidence of PD is second only to the dorsal [5].

In developing countries, tuberculosis still a public health problem for young adult subjects despite the establishment of specific decentralized programs to combat tuberculosis and the free availability of anti-tuberculosis drugs. In this context the diagnosis is still late (at least two years in our patient). Delays of consultation are related to the combination of several factors including ignorance, poverty, the use of traditional medicine, certain beliefs and taboos that equate the occurrence of affection to a bad spell.

The familiar family context of this patient and his normal chest X-ray may suggest that after being in contact, the developed cell-mediated immune response was effective in containing the infection as shown by Hamilton [6]. Since Pott's disease is a paucibacillary form [7] [8] with slow-multiplying Koch bacillus, spondylodiscitis in this patient is due to the reactivation of mycobacteria that have remained dormant or quiescent acquired during an asymptomatic infection. BK affected the lumbar spine hematogenously and remained latent.

In osteoarticular tuberculosis, cold abscesses are a clinical sign of great value in view of the low level of the technical plateau making it difficult to highlight BK. These cold abscesses migrate according to the planes of the fasciae, the sheaths of the nerves and the vessels [9]. The spread of the abscesses that fistulized to the anterior aspect of the left thigh in our case, is the clinical peculiarity that caught our attention. The spread of the L2 to L3 infection in this patient was probably by means of the cold abscess that would have lifted the anterior vertebral ligament without breaking it and would have flowed along the sheath of the psoas muscle [1].

Its fistulization in the lower third of the anterior side of the left thigh suggests that it was superficial and that the migration was made following the conjunctive crural flows. This uncommon localization of the abscess in the thigh and its superficial form can easily be confused with other thigh infections in the patient.

#### 4. Conclusion

In our developing countries, it is necessary to intensify the screening and treat-

ment of cases of tuberculosis with positive microscopy, contacts, sources of contamination and spread of the disease. The control of this affection is also passed by the sensitization of the populations on their erroneous beliefs and the early reference of the patients in specialized center.

### Ethical Considerations

The authors report no conflict of interest. The informed consent of the patient was obtained prior to the use of the data and confidentiality was assured.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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