



Isolated tuberculous abscess of the calf: a case report

Abcès tuberculeux isolé du mollet : à propos d'un cas

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ABSTRACT

Isolated soft tissue tuberculosis is a very rare localization even in countries where tuberculosis stills endemic.

We describe a case of soft tumor of the left calf, masquerading as malignancy, in a 46- year-old immunocompetent woman. During biopsy, highly suggestive liquid evoking casein spilled out from the tumor. Diagnosis of tuberculosis was established by histology. After surgical debridement and specific drug regimen, the patient showed no evidence of disease activity at the two-year follow-up, however a slight functional impairment was noted.

Keywords: tuberculosis, abscess, soft tissue

RÉSUMÉ

La localisation tuberculeuse isolée des parties molles au niveau de l'appareil locomoteur est très rare, même dans les pays où la tuberculose est endémique.

Nous rapportons le cas d'une patiente immunocompétente de 46 ans, présentant une tumeur molle du mollet gauche sans localisation ostéo-articulaire adjacente. L'histoire clinique, l'examen physique et les explorations étaient en faveur d'une atteinte tumorale. Lors de la biopsie, un liquide hautement évocateur de caséum s'est écoulé de la tumeur. La nature tuberculeuse a été prouvée par l'histologie. La patiente a eu un débridement chirurgical et un traitement médical spécifique de 12 mois. Au recul de 2 ans, la patiente a gardé une gêne fonctionnelle modérée sans récurrence de la maladie.

Mots clés : tuberculose, abcès, parties molles

I. INTRODUCTION

The incidence of extrapulmonary tuberculosis has been increasing during the last years^[1], even in immunocompetent patients. The musculoskeletal tuberculosis involves usually bones and joints. Isolated tuberculosis of soft tissues is rather rare and can result in severe mutilations if not diagnosed in time. We report a case of tuberculous abscess in an immunocompetent patient.

II. CASE REPORT

A 46 year-old woman with no medical history, presented to us with a tumor of the left calf, gradually evolving since one year. The pain was intermittent and the mass increases in size progressively. General state was fair and there was no history of trauma, fever or weight and appetite loss. The physical examination showed a normal looking skin over the mass with no sinuses. The tumor was superficial, 10 cm in diameter, tender, mobile, slightly painful. There was no limitation in ankle or knee motion and there was no neurovascular involvement. X rays were normal, showing intact tibia and fibula (Figure 1).



Figure 1: Antero posterior X rays showing intact Tibia and Fibula
Figure 1 : Radiographie de la jambe de face montrant l'intégrité osseuse

MRI scan showed a spindle shaped lesion between skin and lateral gastrocnemius muscle, infiltrating surrounding soft tissues. The lesion appeared to be cystic with areas of low signal within and a mixed signal on T1 and T2-weighted images. There was peripheral rim enhancement in post-gadolinium contrast films (Figure 2, 3, 4). Chest and abdominal CT scan showed pulmonary micro nodes and left inguinal lymphadenopathy. Blood counts were as follows: hemoglobin – 10,5 g/dl; total leukocyte counts - 5190/mm³; differential count - 75% polymorphs, 25% lymphocytes; C reactive protein – 40,6 mg/l. Blood sugar, urine analysis, and renal function tests were within normal limits.

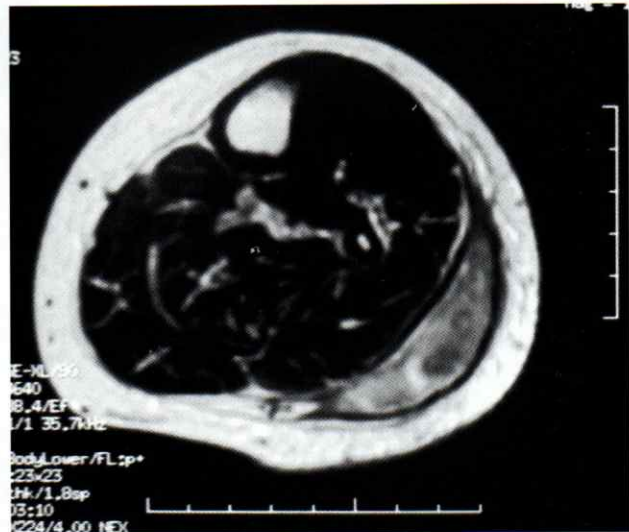


Figure 2: Axial T2 weighted view; Hyper intense lesion
Figure 2 : Coupe axial en T2: lésion hyper intense

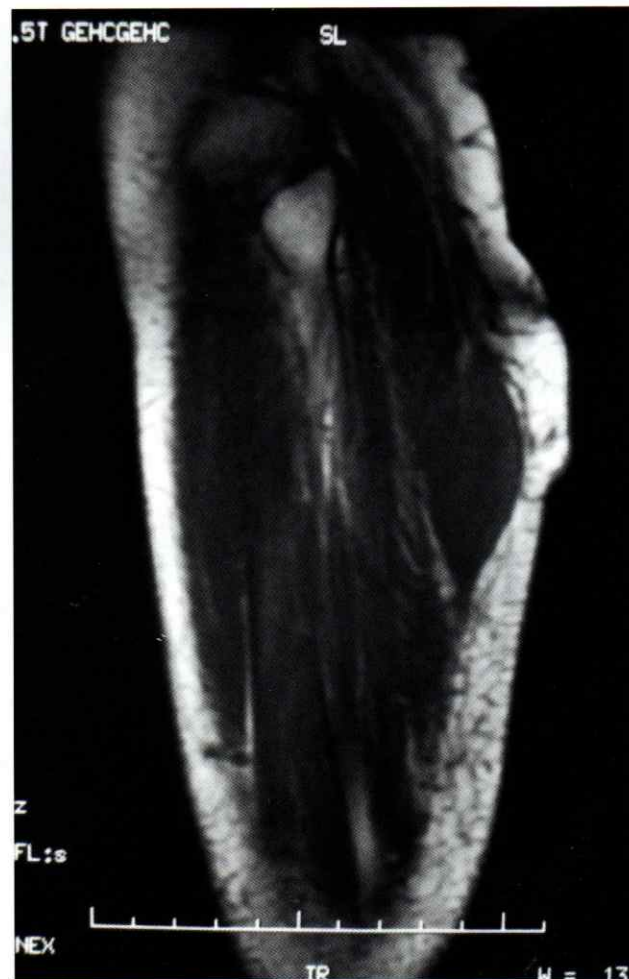


Figure 3: Coronal T1 weighted view: Spindle shaped hypo intense lesion
Figure 3 : Coupe coronale en T1 : lésion en fuseau, hypo intense

The decision was to make a biopsy with a presumptive diagnosis of malignancy. During biopsy, creamy thick fluid, evoking casein spilled out. We decided to do, in the same time, a fullest possible debridement of the lesion. Histology showed multiple caseating epithelioid granulomas with giant cells, proving tuberculosis etiology. The postoperative course was uneventful and the patient received an antitubercular chemotherapy regimen for one year (4HREZ/8HR). At the 2 years follow-up, there were

no signs of disease activity as shown in the MRI control scan (Figure 5). However, the patient kept some residual pain in her calf impeding her to walk for long distances.



Figure 4: Coronal T1+ Gadolinium view; peripheral enhancement of the lesion
Figure 4 : Coupe coronale en T1+ Gadolinium prise de contraste périphérique



Figure 5: Axial T2 weighted view after 2 years: no recurrence
Figure 5: Coupe axiale en T2 au recul de 2 ans: pas de récurrence

III. DISCUSSION

Musculoskeletal tuberculosis without bone or joint involvement is very rare^[1,2]. Soft tissues are generally contaminated secondarily by direct spread or by hematogenous dissemination.

In our case, contamination was likely haematogenous, coming probably from pulmonary lesions.

MRI is the most helpful exploration in case of tuberculous abscess, showing signal alteration consisting of T1-hypointensity and T2-hyperintensity, with a homogeneously-enhanced abscess wall. It allows also loco regional exploration of contiguous structures^[3]. Because of its slow and insidious evolution, tuberculosis may mimic malignant or other inflammatory diseases, leading to misdiagnosis^[4]. Thus, bacteriological or histological evidences are mandatory, even if imaging is strongly suggestive.

If diagnosed at an early stage, muscular tuberculosis can be healed by specific medical treatment alone, and there are usually no functional repercussions. There is no consensus concerning treatment duration. When suppurative stage is reached, lesions can be extensive, drainage or surgical debridement is frequently needed^[2], and this can be mutilating and results in significant reduction in function.

Usually, we do operate tuberculous abscess only when they are large and compressing surrounding elements. In our patient, debridement was decided during biopsy, after the per operative high suspicion of tuberculosis.

In conclusion, we recommend keeping a high degree of suspicion concerning musculoskeletal tuberculosis, especially in unusual forms where there is no bony involvement. These lesions may simulate malignant tumors. Despite the high efficiency of modern imaging, diagnosis must be based on bacteriological or histological evidences. Treatment should be implemented early enough in order to avoid decaying lesions and significant functional repercussions.

IV. REFERENCES

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