

Dorso-Lumbar Wall Abscess Associated with Sacroiliitis: Exceptional Localizations of Tuberculosis

Y. Bouktib^{1*}, L. Abidin R¹, B. Boutakioute¹, M. Ouali¹, N. Cherif Idrissi El Ganouni¹

¹Radiology Department, Arrazi Hospital, CHU Mohammed VI, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco

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*Corresponding author: Y. Bouktib

Radiology Department, Arrazi Hospital, CHU Mohammed VI, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco

Abstract

Case Report

Introduction: Tuberculosis of the abdominal wall is a rare localization, the diagnosis of which on imaging remains difficult due to the absence of specific radiological signs, despite advances in imaging. **Objective:** The aim of this work is to reveal the interest of imaging in the diagnosis of this pathology. **Case Report:** We report the case of a 42-year-old man, with no history of tuberculosis infection, who presented for 4 months with a painless right dorsolumbar tumefaction, without fever, progressively increasing in volume, with the appearance of low back pain and uncounted weight loss 2 months later. Ultrasound examination of the swelling revealed two parietal collections, measuring respectively 1.2x3.5 cm and 4.8x3cm in long axis, with thickened walls communicating with each other through a pertus; they had a heterogeneous hypoechoic echostructure, containing fine non-vascularized echoes on color Doppler. A complementary CT scan showed heterogeneously dense collections opposite L4 and L5, merging in depth, associated with a right sacroiliitis consisting of a significant widening of the joint space, erosions and subchondral geodes of the sacral joint side, with bone sequestration. The lesion assessment revealed another cerebral localization in the form of a left parietal tuberculoma. Percutaneous puncture of the parietal collection with culture on Löwenstein-Jensen medium revealed tubercle bacilli. **Conclusion:** Isolated parietal localization is a rare and unrecognized form of tuberculosis. Imaging can distinguish a tuberculous cold abscess from a wall tumor. Only histological and/or bacteriological examination of biopsies of the mass can confirm the diagnosis.

Keywords: abdominal wall, Tuberculosis, diagnosis, dorsolumbar tumefaction.

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INTRODUCTION

Tuberculosis of the abdominal wall is a rare localization, the diagnosis of which on imaging remains difficult due to the absence of specific radiological signs, despite advances in imaging.

The aim of this work is to reveal the interest of imaging in the diagnosis of this pathology.

OBSERVATION

We report the case of a 42-year-old man, with no history of tuberculosis infection, who presented for 4 months with a painless right dorsolumbar tumefaction, without fever, progressively increasing in volume, with the appearance of low back pain and uncounted weight loss 2 months later.

Ultrasound examination of the swelling (Figure 1) revealed two parietal collections, measuring respectively 1.2x3.5 cm and 4.8x3cm in long axis, with thickened walls communicating with each other through a pertus; they had a heterogeneous hypoechoic echostructure, containing fine non-vascularized echoes on color Doppler.

A complementary CT scan (Figure 2) showed heterogeneously dense collections opposite L4 and L5, merging in depth, associated with a right sacroiliitis consisting of a significant widening of the joint space, erosions and subchondral geodes of the sacral joint side, with bone sequestration.

The lesion assessment revealed another cerebral localization in the form of a left parietal tuberculoma (Figure 3).

Percutaneous puncture of the parietal collection with culture on Löwenstein-Jensen medium

revealed tubercle bacilli.



Figure 1: Ultrasound of the soft tissues: two parietal collections, measuring respectively 1.2X3.5 cm and 4.8x3cm with a thickened wall communicating between them by a pertus, heterogeneous hypoechoic, containing fine non-vascularized echoes on color Doppler

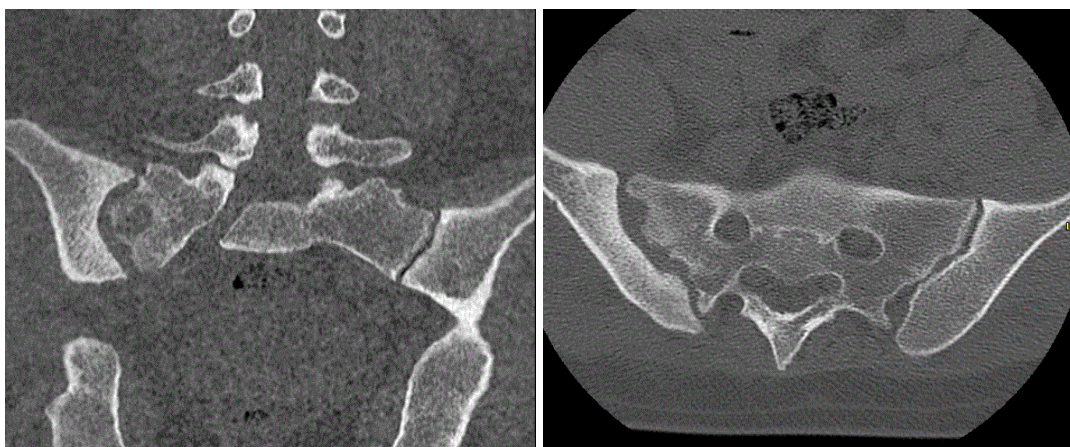


Figure 2: CT scan of the lumbosacral spine in axial and coronal section showing a right sacroiliitis with significant widening of the joint space, erosions and subchondral geodes on the articular side of the sacrum, with bone sequestration

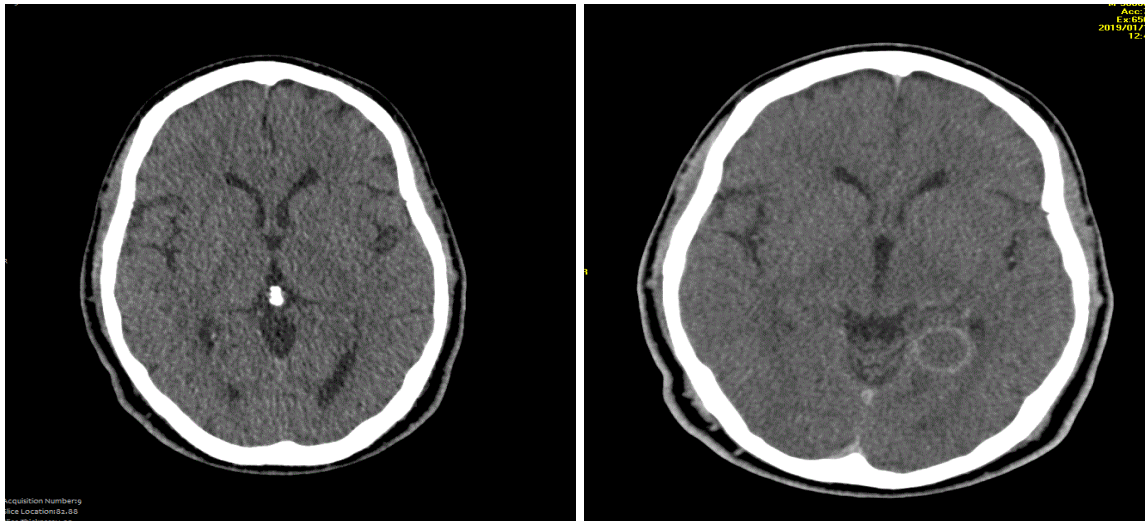


Figure 3: Brain CT scan without and with injection in axial section showing a spontaneously hypodense left parietal lesion enhancing peripherally after PDC injection (cocardial appearance) in favor of a tuberculoma

DISCUSSION

Tubercular Wall Abscess:

Dorsolumbar parietal localization is a very rare form. This rare and unusual presentation represents less than 0.1% of all forms of tuberculosis, and exceptionally primary. The pathogenesis of this entity remains controversial.

It is very often a localization occurring in the course of severe and disseminated tuberculosis. Hematogenous, lymphatic or contiguous dissemination is evoked.

Parietal tuberculosis is characterized by the absence of specific clinical signs. The mass is rarely fluctuating, which rarely suggests an infectious origin.

Imaging:

Ultrasound:

Usually shows a heterogeneous hypoechoic image testifying to the softened nature of the collection enclosing fine nonvascularized echoes on color Doppler.

CT:

More efficient and sensitive than conventional radiography, it reveals a collection of heterogeneous density with hypodense areas that testify to necrosis with sometimes calcifications, bone destruction opposite. It also allows to guide the biopsy or the drainage of the collection, to make a lesion assessment by looking for other tubercular localizations.

MRI:

Magnetic resonance imaging shows morphological and soft tissue signal abnormalities; the lesion appears in heterogeneous T1 hyposignal and T2 hypersignal containing areas of necrosis.

Treatment:

Medical treatment is based on multidrug antituberculosis therapy for six to nine months, depending on the presence or absence of other associated tuberculous localizations. The surgical procedure consists in resecting the abscess in its entirety and removing the underlying necrotic tissue.

Tuberculous Sacroiliitis:

Tuberculous sacroiliitis is a rare localization; it represents 0.4 to 21% of extra-spinal tuberculous localizations. It occurs mainly in young adults with an average age. Clinically, it is often unilateral, and manifests itself by difficulty in walking, buttock pain, and even radiculalgia.

Imaging:

Radiological manifestations appear late, this is due to the slow clinical evolution, and to the anatomical peculiarities of the sacroiliac joint.

Standard Radiography:

May Show:

Blurred appearance with pseudo-enlargement of the joint space.

Erosions on the iliac side and then on both articular edges.

Late: Condensation of the joint edges or even synostosis.

Sacroiliac CT scan:

Evaluates the importance of the articular lesions.

Search for possible soft tissue or pelvic abscesses.

Search for bone sequestration within the osteolysis: a sign suggestive of the diagnosis.

Assessment of loco-regional extension.

Sacroiliac MRI:

Examination of choice in early forms.

Visualizes intra-articular effusion.

Contrast of the synovium and the joint space.

Edematous infiltration of the soft tissues in front of and behind the joint, specific to the infectious origin.

Presence of possible soft tissue abscesses.

Treatment:

Treatment is based on long-term (12 to 18 months) antitubercular antibiotic therapy.

CONCLUSION

Isolated parietal localization is a rare and unrecognized form of tuberculosis. Imaging can distinguish a tuberculous cold abscess from a wall tumor. Only histological and/or bacteriological examination of biopsies of the mass can confirm the diagnosis.

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