


CASE IMAGE

Tuberculous tenosynovitis of the hand: A challenging diagnosis

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Abstract

Tuberculous tenosynovitis of the hand is a very rare condition. Herein, we report the case of tuberculous tenosynovitis of the hand in a 32-year-old woman. We highlight the success of anti tuberculosis drugs alone without resort to surgical treatment.

KEYWORDS

MRI, tenosynovitis, treatment, tuberculosis

Question: What does magnetic resonance imaging (MRI) show?

Answer: MRI shows flexor tenosynovitis of the left hand, which fully regressed after medical treatment.

A 32-year-old Tunisian woman, presented to our department with a history of painful and dragging swelling of the back of her left hand evolving for 4 months. Originally, she responded well to non-steroidal anti-inflammatory drugs until 2 months before her consultation. She complained also of a long-lasting skin lesion gradually enlarging and suppurating on her fifth right toe. Her physical examination was notable for diffuse erythema and swelling in the third, fourth, and fifth fingers, extending into the palm, as well as her dorsal hand. She had fusiform digits and pain over flexor sheaths. Her 3 digits were held in slight flexion at rest. Laboratory studies showed a white blood count of 6520 cells/mm³, lymphocytes count of 1390 cells/mm³, and the C reactive protein level was 28 mg/L.

T1 weighted MRI images showed thickening of flexor sheaths (Figure 1A), intensely enhanced after injection of gadolinium (Figure 1B), conforming with flexor tenosynovitis of the left hand.

Skin biopsy of the lesion of her fifth toe revealed tuberculoid granuloma without caseous necrosis. Tuberculosis (TB) skin test was positive. After ruling out others causes of granulomatosis particularly sarcoidosis and malignant disorders, cutaneous and tenosynovial tuberculosis was retained. The patient was put on 15 months of isoniazid and rifampicin, supplemented in the first 2 months by both pyrazinamide and ethambutol. Our patient achieved remarkable response with healing of skin lesion without scarring and full regression of tenosynovitis on MRI (Figure 2A,B).

Tuberculous tenosynovitis of the hand is not only a scarce condition, but also a great mimicker thus explaining the usual delay in diagnosis.¹ In developing countries, like ours, tuberculous should be considered among causes of chronic tenosynovitis.^{1,2}

The diagnosis of tuberculous tenosynovitis of the hand could be suspected by clinical and radiological findings and confirmed by bacterial and histological findings. An appropriate and fast diagnosis of tuberculous tenosynovitis is crucial to avoid inappropriate treatment.

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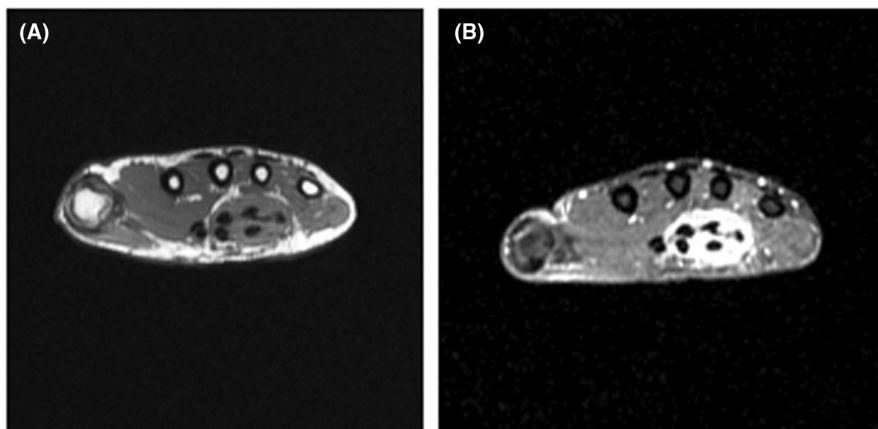


FIGURE 1 (A) T1 weighted MRI image of the left hand showing thickening of flexor sheaths. (B) Post-gadolinium sequence demonstrating avid enhancement of the thickening of flexor sheaths

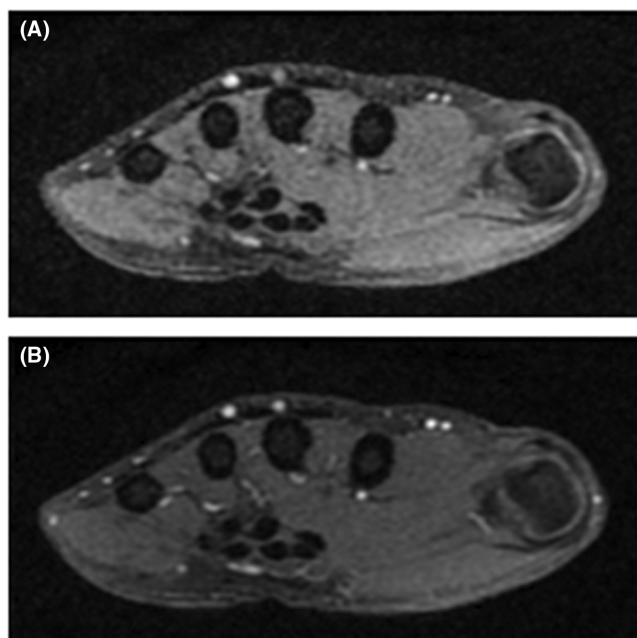


FIGURE 2 (A) MRI image of the left hand showing full regression of tenosynovitis. (B) MRI image of the left hand showing full regression of tenosynovitis

A particularity of our case is the success of anti-TB drugs alone without surgical treatment.^{2,3}

AUTHOR CONTRIBUTIONS

Asma Kefi: Data curation; writing – original draft. **Khaoula Ben Abdelghani:** Writing – review and editing. **Ilef Ben Jemaa:** Data curation; writing – original draft. **Mounira Elleuch:** Writing – review and editing. **Cyrine Sassi:** Writing – review and editing. **myriam jrad:** Data curation; writing – review and editing. **Sami Turki:** Validation. **Ezzeddine Abderrahim:** Validation.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

RESEARCH ETHICS

The work meets ethical and legal guidelines.

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