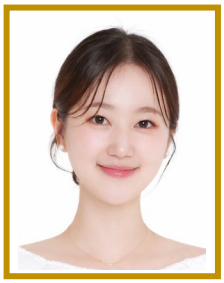
EP-233

활막 거대세포종으로 오인된 수장부 결핵성 건초염 (수근관 감압술 후 발생): 증례 보고

(Tuberculous Tenosynovitis of the Palm Mimicking Synovial Giant Cell Tumor After Carpal Tunnel Release: A Case Report)



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Purpose: Tuberculous infection of the hand is rare and may mimic benign soft tissue tumors, leading to diagnostic delay. We report a case of a tuberculous granulomatous lesion of the palm that was initially suspected to be a synovial giant cell tumor in a patient with persistent neuropathic symptoms following carpal tunnel release.

Methods: A patient with a more than two-year history of numbness and pain in the left hand underwent carpal tunnel release at another institution, but postoperative symptoms persisted. Physical examination revealed a poorly circumscribed palmar mass measuring approximately 4 × 8 cm (Figure 1). MRI demonstrated a diffuse infiltrative lesion along the flexor tendon sheaths extending into the carpal tunnel, raising suspicion of synovial giant cell tumor (Figure 2). Surgical excision and biopsy were performed under general anesthesia with careful preservation of the median nerve and flexor tendons.

Results: Intraoperatively, the lesion was diffusely infiltrative and poorly encapsulated, involving multiple flexor tendon sheaths. Careful dissection was performed to preserve the flexor tendons, median nerve, and digital neurovascular structures during excision (Figure 3A). Gross examination revealed multiple pale gray–yellow soft tissue fragments measuring up to approximately 7.4 × 6.2 × 0.8 cm (Figure 3B). Histopathological examination demonstrated chronic granulomatous inflammation with necrosis. High-power microscopy revealed epithelioid histiocytes and multinucleated giant cells forming granulomatous structures suggestive of tuberculous infection (Figure 4). Acid-fast bacilli staining and polymerase chain reaction tests for Mycobacterium tuberculosis and nontuberculous mycobacteria were negative. Postoperatively, the patient's neuropathic symptoms improved without complications.

Conclusion: Tuberculous tenosynovitis should be considered in the differential diagnosis of diffuse palmar masses, particularly in patients with persistent neuropathic symptoms after carpal tunnel release. Histopathological evaluation plays a crucial role in diagnosis even when microbiological tests are negative.

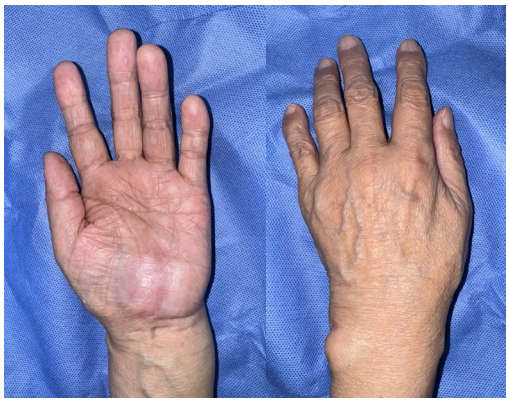

Fig. 1. Preoperative clinical photographs of the left hand. Clinical photographs demonstrate a poorly circumscribed palmar mass associated with swelling of the palm and persistent neuropathic symptoms despite previous carpal tunnel release.

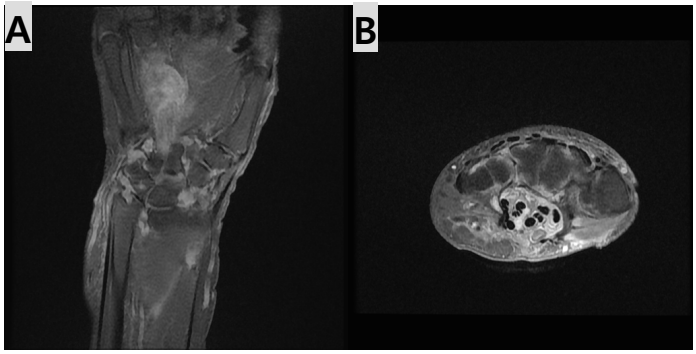

Fig. 2. Preoperative magnetic resonance imaging of the left hand.
(A) Coronal image demonstrating a diffusely infiltrative soft tissue lesion extending along the flexor tendon sheaths from the wrist to the palm and proximal digits. **(B) Axial image** showing encasement of multiple flexor tendons with extension into the carpal tunnel, resulting in crowding of the surrounding neurovascular structures.

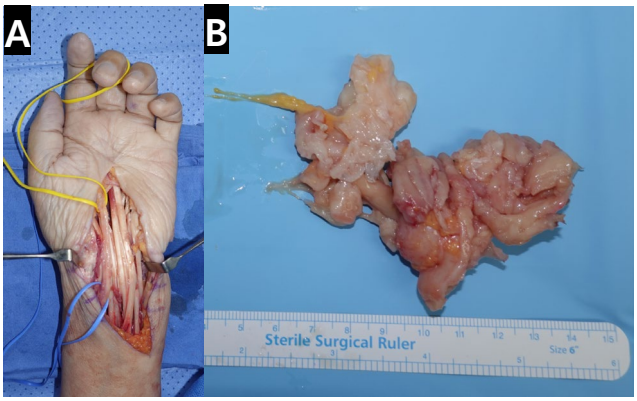

Fig. 3. Intra-operative findings of the palmar lesion.
(A) Intraoperative photograph demonstrating diffuse infiltrative tissue involving the flexor tendon sheaths with preservation of the flexor tendons and median nerve.
(B) Gross photograph of the excised specimen showing multiple irregular pale gray–yellow soft tissue fragments.

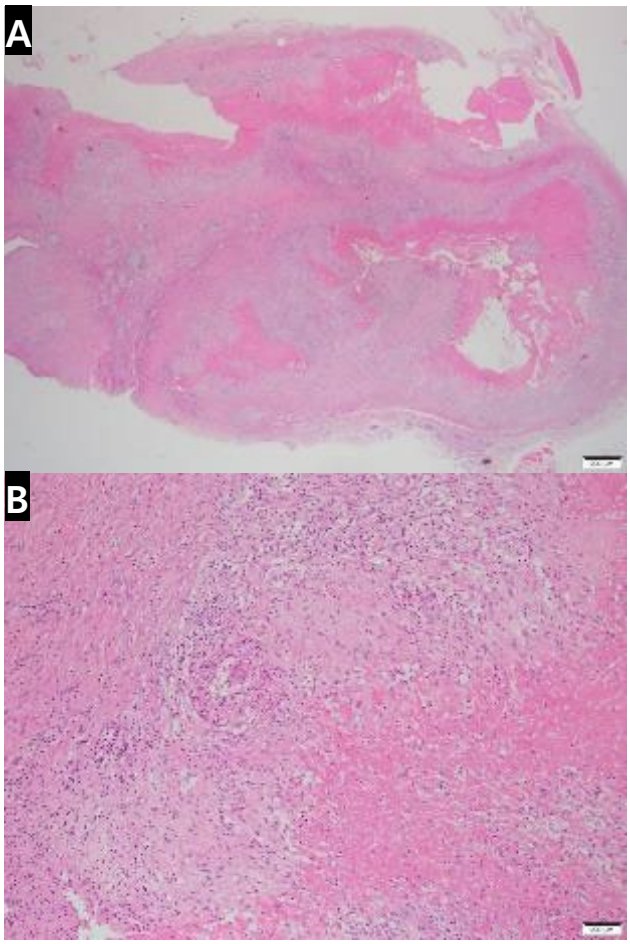

Fig. 4. Histopathological findings of the excised lesion.
(A) Low-power view (H&E stain, ×10) demonstrating extensive granulomatous inflammation with central areas of necrosis involving the soft tissue.
(B) High-power view (H&E stain, ×100) showing epithelioid histiocytes and multinucleated giant cells forming granulomatous structures, consistent with chronic granulomatous inflammation suggestive of mycobacterial infection.