



TUBERCULAR COMPOUND PALMAR GANGLION –A CASE SERIES

Orthopaedics

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ABSTRACT

Background: Tuberculous tenosynovitis of flexor tendon sheath of forearm, also called as compound palmar ganglion, though rare, is still encountered in developing countries. The clinical presentation is typical but still is overlooked where it is confirmed by histopathology, and is managed by complete excision followed by anti-tubercular treatment. **Materials And Method:** This case series includes 5 cases of tubercular compound palmar ganglion with typical presentation. All cases were clinically diagnosed. Complete case workup was done by CBC, X-ray and confirmation by histopathology. They were treated by complete excision and full course of anti-tubercular treatment. **Result:** All 5 cases showed complete recovery with surgery followed by completion of anti-tubercular chemotherapy. There was no recurrence or residual neurological deficit seen. **Conclusion:** Tubercular compound palmar ganglion has a good treatment outcome if diagnosed early and treated appropriately without delay.

KEYWORDS

Tubercular, compound palmar ganglion, tenosynovitis

INTRODUCTION

Chronic flexor tenosynovitis, a condition involving the flexor tendons around the wrist, above and below flexor retinaculum is also called as compound palmar ganglion.^(1,2) The common causes of this condition are autoimmune conditions like rheumatoid arthritis, systemic lupus erythematosus and infection by atypical bacteria like tuberculosis.³ The route of infection is either by direct inoculation or haematogenous spread from lungs or lymphnode.⁴

Patients usually presents with characteristic swelling in the volar aspect of the wrist associated with pain and discomfort during wrist movement.⁵ Neurological symptoms like tingling sensation, numbness over fingers may also be seen due to chronic inflammation of all the tendons sheaths around the hand and wrist resulting in median nerve compression.⁶ Constitutional symptoms like evening rise in temperature, loss of appetite and weight may also be present.¹

Case Presentation

CASE 1: A 32 year old male presented with chief complaints of swelling over the palm and wrist which was slow in onset and gradually progressive. He showed symptoms of median nerve compression where he complained of pins and needle sensation of medial 3rd of hand and medial 3 fingers. X-ray revealed no bone involvement, blood parameters was normal except raised ESR. Chest X-ray was normal. Complete excision was done followed by anti-tubercular chemotherapy. The patient had no complaints at 3 months post-operative follow-up.

CASE 2: A 40 year old male came with complaints of swelling and pain in palm and forearm. He complained of increase in pain mainly at night. There was no history of past TB or exposure to TB. X-ray showed no bone involvement and ultrasound showed swelling. Complete excision with anti-tubercular treatment resulted in favourable outcome in the patient.



Figure 1: Swelling Over Palm And Wrist

CASE 3: A 27 year old male came with chief complaints of swelling in volar aspect of forearm and palm. There was numbness and tingling sensation over the area of median nerve supply. There was no bone involvement in X-ray. Complete excision with anti-tubercular treatment showed good outcome.

CASE 4: A 46 year female, presented with complaints of swelling over palm and forearm which is gradual in onset and slowly progressive. She complained of pain and discomfort on hand movement and daily chores. X-ray showed no bone involvement and excision with anti-tubercular treatment resulted in good outcome with no complaints at 3 month follow-up.

CASE 5: A 36 year female presented with swelling and pain in palm and forearm. She complained of difficulty and pain during gripping of objects and increased pain at night. There was no past or family history of tuberculosis. There was good prognosis without any complaints at follow up after complete excision and anti-tubercular treatment.



Figure 2: Intraoperative Images



Figure 3: Rice Bodies Removed On Excision

DISCUSSION

TB tenosynovitis also referred as Compound palmar ganglion of the hand constitutes <5% of skeletal TB.⁷ It affects both the radial and ulnar bursae of wrist and hand.⁸ The disease reaches the synovial sheath by direct hematogenous spread or from underlying bone or joint.⁹ Inflammation of the synovial tissue, formation of villi, degeneration of the present synovium, followed by caseation and melon /rice bodies formation is seen.¹⁰ Rice or melon bodies were first described by Reise in 1895.¹¹ Where, they are loose fibrinous corpuscles of synovial origin, which are result of micro infarction and ischemia of the synovial sheath This may be followed by rupture of tendon.^(12,13) Mass effect may also occur in already tight flexor compartment around wrist resulting in carpal tunnel syndrome.¹⁴

All our patients had classical presentation with hour-glass swelling over the wrist with pain. Two of them showed features of nerve compression. Neither constitutional symptoms of tuberculosis nor history of tuberculosis was present in any of them.

All were treated with extensive debridement with complete excision followed by complete course of anti-tubercular chemotherapy. All showed good outcome without any recurrence at 3 months follow up period.

CONCLUSION

Though rare, tubercular tenosynovitis is still encountered in developing countries like India and hence it has to be considered as a differential diagnosis in swelling over the wrist. Complete excision, should always be followed by complete anti-tubercular chemotherapy as its treatment. Timely diagnosis and prompt treatment is essential to save patient from bone involvement leading to arthrodesis, which is the main complication of the condition.

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