Introduction

Tuberculosis is not one of the most common causes of carpal tunnel syndrome. However, a high index of suspicion should be kept in mind especially in developing countries like India on finding unexplained proliferative tenosynovitis during surgery. The aim of this article is to draw attention to this fact and recommend biopsy in every patient presenting with carpal tunnel syndrome due to chronic nonspecific tenosynovitis.

Case Report

A 60 year old lady came to our outpatient with chief complaints of gradually progressive increasing paraesthesia and numbness in the median nerve innervated territory of the left hand since one month. The symptoms were more intense at night and were typically relieved with vigorous shaking of the hand. On examination, there was wasting of the left thenar eminence and swelling on the anterior aspect of the wrist, suggestive of tenosynovitis of the flexor tendons. There was hypoaesthesia in the radial three and half fingers. There was no evidence of any motor weakness. Phalen’s test, Tinel’s sign and Nicolle’s test were positive and correlated well with median nerve compression. There was neither any history nor clinical finding suggestive of rheumatoid arthritis. History and clinical findings were not suggestive of any other pathology either.

Nerve conduction studies showed delayed conduction and diminished amplitude confirming median nerve compression at the wrist. ESR of the patient was 30 mm at the end of one hour. Surgery in the form of carpal tunnel release was performed. At surgery, flexor tendons looked grey and were swollen proximal and distal to the tunnel with constriction in the region underneath the flexor retinaculum.

Fig. 1: Histopathology showing central caseoid necrosis surrounded by giant cells along with monocytes and macrophages typical of tuberculosis.

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(dumbbell shaped), compressing the median nerve which was also similarly constricted. After the carpal tunnel release, tenosynovectomy of all the involved tendons was done and a specimen for biopsy was sent. Histopathology revealed tuberculosis which is shown in the figure. Patient was started on antituberculous treatment. The symptoms reduced in 1-1.5 months and after 6 months the patient is completely better. Retrospectively, the patient does not give any past history of tuberculosis or recent history of loss of weight or appetite, fever etc.

Discussion
Carpal tunnel syndrome secondary to tuberculous tenosynovitis has been described.\(^1\)\(^-\)\(^4\) If untreated it results in caseoid necrosis and destruction of flexor tendon apparatus.\(^4\) In almost all cases, the diagnosis was made post-operatively after suspicious tenosynovial material was sent for and confirmed with biopsy. The pre-operative diagnosis was either rheumatoid arthritis or nonspecific tenosynovitis. The aim of this article is to highlight the fact that tuberculosis should be kept in mind as a possibility in the presence of proliferative tenosynovitis causing carpal tunnel syndrome, especially in a developing country like India and biopsy should always be done to rule out the same.

References