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Orthopaedics

GIANT CELL TUMOUR OF TENDON SHEATH OF TENDOACHILLES-A CASE REPORT

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ABSTRACT Giant cell tumour arises from the synovium of tendon sheath, joints, or bursae,mostly affects adults between 30 and 50 years of age, and is slightly more common in females.Giant cell tumour of tendon sheath of tendoachilles is uncommon tumour. Usually it has a high rate of recurrence. In this article we report the case of a 32 year old female with Giant cell tumour of tendoachilles treated by excision with no reccurence after 7 months of follow up.

KEYWORDS : Giant cell tumour, Tendoachilles, Excision.

INTRODUCTION

Giant cell tumour arises from the synovium of tendon sheaths, bursae, or joints, mostly affecting female subjects betweem 30 and 50 years of age[1]. Giant cell tumour of tendon sheath is an uncommon tumour. Commonly it arises from the tendon of muscles of hand and foot; less common are elbow and ankle. It has high rate of recurrence. If tumour is excised properly the risk of recurrence is much lower.

CASE REPORT

A 32 year old female presented to outpatient department of our hospital with complaint of swelling of left ankle for 3 months. Swelling was very small to start with, gradually kept increasing in size and reached to the size walnut. Swelling was painless when it was started,,at the time of presentation,she complained of dull aching pain while walking ,climbing stairs. But there was no limping while walking. No history of trauma and fever

On examination swelling was firm ,tender, cystic and had well defined margins. Overlying skin was free from swelling.it was moving with Achilles tendon but not along with tendon.On active plantar flexion tumour was fixed to tendon. Tansillumination test was negative,fluctuation test positive.no systemic illness and no weight loss

Routine hematological and biochemical tests were within normal limits . X ray of ankle ,Anterioposterior and lateral views showed no pathology. Color Doppler showed increased flow in peritendinous area . MRI findings of lesion showed most of lesion had intermediate singnal intensity. On fine needle cytology ,multinucleated giant cells with macrophage and round to spindled cells were seen

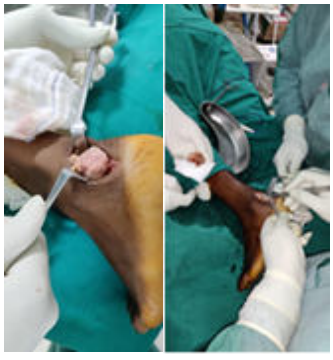
Biopsy of lesion showed giant cells with spindle cells and no signs of malignancy. Diagnosis of giant cell tumour of tendon sheath was made .Giant cell tumour was excised and sent for histopathological examination ,which confirmed the diagnosis

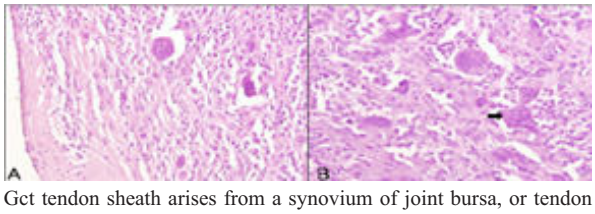
OPERATIVE PROCEDURE:

Operation was done with patient in prone position under spinal anesthesia , and tourniquet was applied .posteromedial longitudinal incision of about 6 cm was made about 1cm medial to tendocalcaneus around lesion . Incision was made through skin , sub cutaneous tissue , and tendon sheath exposing the affected lesion which was carefully dissected while keeping the tendon intact. Wound was closed in layers. Below knee anterior plaster of paris slab was applied . Sutures were removed after 14 days, slab was removed after 4 weeks. The patient was allowed weight-bearing in lower limbs with the help of walker. The walker was discarded after a month showing full range of knee and ankle movement. Post operative recovery was uneventful. A five month follow up was done, there was no evidence of local recurrence of tumour.

DISCUSSION:

The present case of giant cell tumor of tendon sheath was a rare presentation affecting tendoachilles of left lower limb.it is an uncommon tumour.Single lesions are more frequently detected than multiple, but later was associated with a higher recurrence rate[3-5] . the diffuse form of tenosynovial gaint cell tumour affects slightly younger age group than localized form. patients with Gct tendon sheath present with articular or peri articular pain and swelling with decreased range of motion[2-5]. Hemarthrosis, degenerative osteochondral findings and bone invasion are expected findings . These tumors should be regarded as benign , but locally aggressive , neoplasms that are prone to recurrence when inadequately excised[5] .





Gct tendon sheath arises from a synovium of joint bursa, or tendon sheath and 85% of tumors occurs in fingers.

The most widely accepted pathogenic hypothesis is reactive or regenerative hyperplasia associated with an inflammatory process . Gct tendon sheath was initially regarded as an inflammatory disease ; however , the finding of aneuploidy in certain cases and the demonstration of clonal chromosomal abnormalities strongly support a neoplastic origin[2-4].

In review of literature on treatment of GCTTS, the following data was found:

Arthroscopic resection of diseased tissue is preferred by some investigators. Complete resection is more likely with this approach when the disease is relatively localized. Although arthroscopic surgery offers the ability to resect disease with minimal loss of function and faster rehabilitation times. These advantages must be balanced against the possibility that diseased tissue may not be resected completely with this approach[6-9].

Lee et al[7]. reported recurrence following arthroscopic surgery in five cases, among which one case involving left knee had arthroscopic excision thrice and one case involving right knee had arthroscopic excision twice. Open synovectomy with electro-cauterization was done latter done in these cases with no recurrence on follow-up.

Open arthrotomy with synovectomy increases the likelihood of complete resection of disease, but usually requires immobilization and a longer recovery. Open synovectomy may be augmented by applying a cryosurgical surface spray to all non-articular surfaces at the time of surgery. Radiation therapy may be used as the primary treatment for Dt-GCT, but it is best used to augment surgery following the incomplete resection of disease. Clinical control of disease has been reported in as many as 98% of patients following external radiation therapy. External beam irradiation is usually employed after an incomplete resection of disease[7-9].

CONCLUSION:

In conclusion in single lesions complete excision of the mass by using magnifying glasses with or without radiotherapy provides good results[2-5].

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