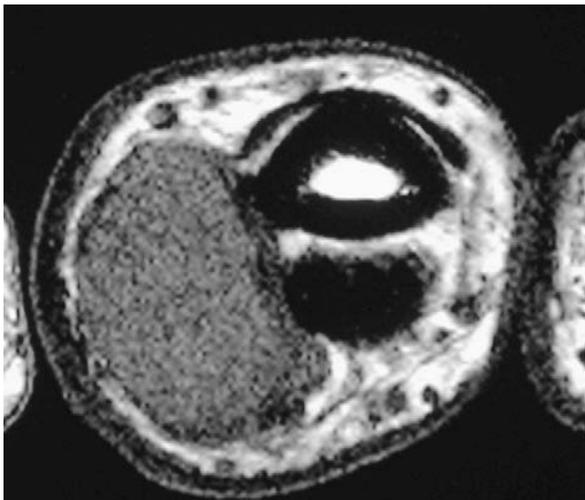




Case 60

Painless finger swelling in 45 year old female of the Index

Diagnosis



Diagnosis: Giant cell tumor of the tendon sheath

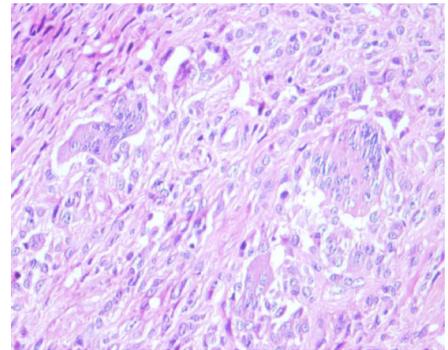
GCT returns low T1 and T2 signal as it contains dense fibrous tissue and haemosiderin

Usually seen PIP of index and long fingers, usually arises from flexor tendon sheath

Locally invasive; often extends below joint ligaments

20% can erode bone

Grossly, GCTTS is a **multilobular** and generally **well-circumscribed** tumor. It may be partially or completely encapsulated and may have extensions and/or satellite lesions connected by as little as a few strands of fibrous tissue.



Coloration varies from gray to yellow-orange with some brownish areas, depending on the amounts of hemosiderin, collagen, and histiocytes present in the tumor.

Histologically, giant cell tumor is composed of 4 main cell types, namely the principal synovial cell, multinucleated giant cell, foam cell, and histiocyte-like cell. These cells are contained within a fibrous collagenous stroma, form synovial-lined spaces, and are often surrounded by a thin, fibrous capsule

It's a PVNS usually arises from the synovium of joints, whereas GCT arises from the tendon sheath form of pigmented villonodular synovitis (PVNS).

Treatment: complete excision under magnification look for the margin

. **Recurr** 10% after excision [usually recurs within 2 years of surgery]

The GCTTS is most commonly found in the hand region (77%-92.9%).

The GCTTS of the hand is a painless slow-growing mass and many patients only complain of a swelling mass more often located at the palmar surface (

In other studies, some differences in term of age distribution were reported, but in many of them, patients were at any age with a peak involvement at third to fifth decades of life

The GCTTS involves the index finger in most of the patients followed by middle finger or thumb.

Ozalp et al. showed that optimal surgical exposure and magnification are important factors regarding achieving satisfactory outcomes (3).

Several risk factors have been reported to increase the risk of GCTTS recurrence including adjacent degenerative joint, proximity to distal interphalangeal joints of fingers and interphalangeal joint of the thumb, radiologic osseous erosion, and some histopathologic findings such as types of cells, increased cellularity or mitotic activity, capsular involvement, and 23-nm negativity.

Williams et al. suggested that direct involvement of flexor or extensor tendons or involvement of the joint capsule increases the risk of recurrence. This has not been confirmed. The recurrence rate of GCTTS in our patients was 8.5%. The meticulous and complete surgical excision of the tumor under magnification by expert hand may be the most important factor to decrease the rate of recurrence.

Females were predominantly involved. The peak incidence was found in fourth decade

of life. The middle finger was the most common site of lesion followed by index finger and thumb. T