

## A Case Report of Rice Body Formation in Tenosynovitis of Extensor Tendons of the Wrist.

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**Abstract:-** Rice bodies were first described in association with tuberculous arthritis in 1895 but now seen most commonly in patients with rheumatoid arthritis(RA).Rice bodies named after their macroscopic likeness to polished grains of rice are common finding in inflammatory arthropathies like R.A,S.L.E and seronegative arthritides.These are fibrous bodies which may create diagnostic confusion when the patient has no underlying inflammatory disease.We report such a case with a large soft tissue swelling over dorsum of wrist whose surgical exploration revealed rice bodies in the extensor tendons synovial sheath.The patient regained full painless range of motion post-operatively.

**Keywords:-** dorsum, fibrous , inflammatory, rice bodies, synovial sheath.

### I. Introduction

Rice bodies are commonly reported by rheumatologists as a result of chronically inflamed joints with synovial hypertrophy and synovial proliferation.These shiny white particles represent only one end of a spectrum of intrasynovial particles[1,2].We report a case of 37 yr.old male who presented with swelling over dorsum of wrist which on surgical exploration came out to be rice bodies formation in extensor tendons synovial sheath.

### II. Case Report

A 37yr.old male presented to orthopaedic opd with a 6 month history of painless swelling over dorsum of left wrist.He had no history of trauma,fever or systemic symptoms.On physical examination a large soft tissue mass with uniform consistency and well circumscribed borders identified.No associated erythema or pain noted.Range of motion was decreased. Radiography showed soft tissue mass shadow.Ultrasonography local area revealed tenosynovitis of the extensor tendons of the wrist. Laboratory tests were normal.ESR,CRP were all within normal limits. Surgical exploration was planned with a provisional diagnosis of Ganglion.Differential diagnosis considered were pigmented villonodular synovitis, synovial chondromatosis and giant cell tumor of the tendon sheath.

Surgical exploration of the swelling was done.A multilobulated soft mass dissected off extensor tendons synovial sheath(Fig 1).This mass showed numerous shiny soft yellowish rice grain like particles along with the gelatinous fluid material(Fig 2).The synovial sheath was thickened.Removal of rice bodies and thorough excision of sheath done.Histopathological examination revealed fibrocollagenous tissue with synovial lining infiltrated by lymphocytes and foamy histiocytes .A histopathological impression of chronic synovitis made.The rice bodies were composed of an inner core of amorphous acidophilic material with interspersed chronic inflammatory cells surrounded by a thin fibrous layer.The patient postoperative recovery was uneventful and he regained a full painless range of motion.



Fig. 1 : Clinical Intra-operative image of multilobulated yellowish mass over dorsum of the wrist



Fig. 2 :Numerous shiny yellowish rice grain particles along with gelatinous fluid material

### III. Conclusion

Rice bodies were first described in 1895 in association with tuberculosis[3]. They are basically non specific response to synovial inflammation. The cause of rice body formation is not well known. Some have suggested synovial inflammation and ischaemia, with subsequent synovial shedding and encasement by fibrin derived from synovial fluid as possible cause[4]. Rice bodies usually seen in rheumatic diseases such as Rheumatoid Arthritis, Systemic lupus erythematosus and seronegative arthritides, as well as osteoarthritic joints[5,6]. Rice bodies have also been reported in a 61yr.old female on volar aspect of wrist[7]. The sheath of the tendons of the wrist has been reported as a site of rice body formation[8,9]. Atypical mycobacterial tenosynovitis of the hand and wrist and subsequent rice body formation have been reported[10]. Pigmented villonodular synovitis and synovial chondromatosis were two close differentials in this case[11,12]. Thorough excision of the affected tendon sheath was done to prevent recurrence.

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