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An Unusual Case of Calcific Tendonitis of Flexor Carpi Ulnaris Tendon

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Keywords: Dystrophic calcification, Psammoma bodies, Tenderness

A male patient aged 25 years presented to the Department of Radiodiagnosis with the complaint of pain, swelling and restricted movements in the left wrist joint. The complain started a week ago and was gradually increasing in severity. There was no history of any trauma to the hand. The patient did not give any significant past medical history

On examination, he had a localised swelling over the palmer aspect of wrist on ulnar side distally. He had tenderness over the same place with pain on both flexion and extension of the wrist joint. Suspected cause was repeated trauma to his left wrist.

The patient was subjected to X-ray left wrist AP view [Table/Fig-1] which revealed a lobulated tiny calcified area noted just infero-laterally to the pissiform bone, possibly tendinous calcification or a loose body.

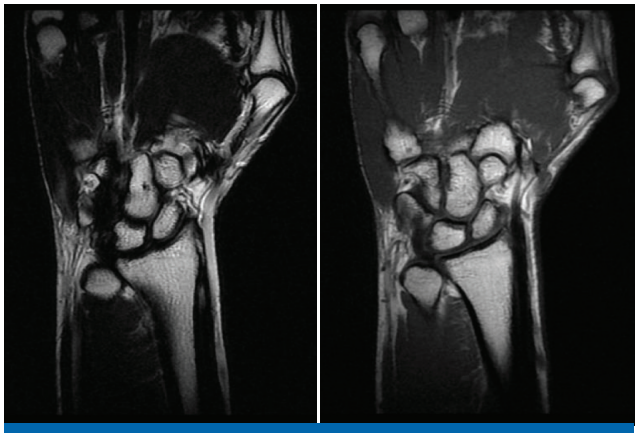
[Table/Fig-1]: X-ray left wrist, AP view, reveals a lobulated tiny calcified area just inferolateral to the pissiform bone, possibly tendinous calcification or a loose body.

Calcific tendonitis is a disease characterised by deposition of calcium hydroxyapatite in the substance of the tendon [1,2]. The most commonly affected tendon is the supraspinatus tendon [3].

It is however, not clear about how chain of events occur which subsequently lead to formation of fibro-cartilage followed by dystrophic calcification. But local hypoxia and ensuing metaplasia may be the possible cause [4]. Histopathological examination shows psammoma like bodies which are actually deposition of hydroxyapatite. These depositions are surrounded by inflammatory cells [5]. Few metabolic conditions like gout, pseudo-gout, diabetes and few autoimmune disorders like thyroidism, systemic sclerosis, rheumatoid arthritis can be seen to be commonly associated with calcific tendonitis.

Many diseases cause joint pain with calcification, the various differentials are : hyperparathyroidism, Calcium Pyrophosphate Dihydrate Deposition disease (CPPD), renal osteodystrophy, hypoparathyroidism, dystrophic calcification, tumoral calcinosis, sarcoidosis, collagen vascular disease, ochronosis, milk-alkali syndrome and hypervitaminosis D [6].

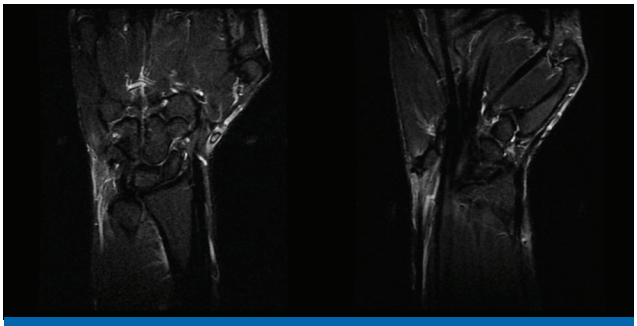
It is a self-limiting process and often resolves over the course of several weeks without treatment. Treatment protocol includes



[Table/Fig-2]: CORONAL T1 MR Image left wirst, reveals a well-defined irregular area adjacent to pisiform bone on palmer aspect, superolaterally appearing hyperintense on all sequence indicating calcifications.
[Table/Fig-3]: CORONAL T2 MR Image left wrist, reveals similar finding, with the well-defined area irregular area adjacent to pisiform bone on palmer aspect, superolaterally appearing hyperintense on all sequence indicating calcifications.

NSAIDS along with immobilisation. Symptoms improve within seven days with this treatment but it takes several weeks for calcification to disappear [7]. Surgical removal of calcifications can be done in cases not responding to conservative treatment.

Ultrasound ablation may be useful for short term benefit. However, no long term benefit has been seen till yet.



[Table/Fig-4]: CORONAL STIR MR image left wrist, revealsthe flexor carpi ulnaristendon near its insertion appears thickened with diffuse intrasubstancehyperintense signal on STIR.

On MRI, left wrist joint, well defined irregular area was noted adjacent to pisiform bone on palmer aspect, superolaterally appearing hyperintense on all sequence indicating calcifications [Table/Fig-2,3]. The flexor carpi ulnaris tendon near its insertion showed thickening with diffuse intra substance hyperintense signal on STIR. There was irregularity and loss of superficial fibres of tendon adjacent to above mention calcification. The surrounding soft tissue showed hyperintense signal on T2, STIR indicating soft tissue edema. Minimal fluid was also noted along the tendon sheath of flexor carpi ulnaris [Table/Fig-4]. A tentative diagnosis of calcific tendonitis of flexor carpi ulnaris tendon was made.

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