

Full Text Article Open Access



Images in clinical practice

Gouty Tophi: A rare cause of Carpal Tunnel Syndrome.

Folath Mohamad 1*, Tarantino Alessio 2,3.

- Department of orthopedic surgery, Al Emadi Hospital, Doha Qatar
 Public Hospital of Alatri ,Frosinone, Italy
 SI University of L'Aquila, Abruzzo, Italy.
 Corresponding author

Correspondence to: Folath74@yahoo.com

Publication Data:

Submitted: April 28,2021 Accepted: June 29,2021 Online: November 30,2021

This article was subject to full peer-review.



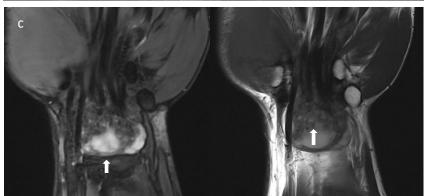
This is an open access article distributed under the terms of the Creative Commons Attribution Non-Commercial License 4.0 (CCBY-NC) allowing sharing and adapting.

and adapting.
Share: copy and redistribute the material in any medium or format.
Adapt: remix, transform, and build upon the licensed material.

the work provided must be properly cited and cannot be used for commercial purpose.









- b: Ultrasound showed a diffuse soft tissue thickening in the carpal tunnel with mass effect on the median nerve as well as cystic mass pointing cranially from the radio-carpal joint.
- c: MRI showing a flattering of the median nerve in a crowded carpal tunnel at the level of the hamate with 1.3x0.5cm cystic mass at the level of the distal radius.
- d: Intraoperative findings

Comments

A 36-year-old male patient with history of gout presented with recurrent right wrist pain and swelling of three months duration. There were no associated symptoms. The examination showed swelling mass of the volar right wrist with signs of median nerve compression. The radiological examinations done including X-rays , joint ultrasound and MRI confirmed carpal tunnel syndrome with flattering of the median nerve in a crowded carpal tunnel due to thickened soft tissues and 1.3x0.5 cm cystic mass at the level of the distal radius. Surgical decompression was indicated to control the symptoms and to rule out the mass origin. The post operative course was uneventful with objective improvement of the symptoms. Histopathologic examination of the resected specimen showed pale basophilic material surrounded by histiocytes and foreign body type giant cells in favor of gouty tophi.

Gout is a disease featuring acute arthritis, joint deformity and severe pain caused by the deposition of monosodium urate crystals in and around synovial tissue [1]. Carpal tunnel syndrome is a rare condition in these cases. It indicates the severity of the disease and its delayed treatment [2]. Gouty tophi should be entertained as a cause of carpal tunnel syndrome in the appropriate patient population [3]. Early tophi surgical excision combined with trioxypurine treatment may improve the outcomes of carpal tunnel syndrome and allow to avoid irreversible complications [4].

Conflict of Interest: None

References

- [1] Lee JK, Kim JW, Kim YS, Koo BS. A case of severe gouty tophi-induced carpal tunnel syndrome: Operative finding and its outcome. Handchir Mikrochir Plast Chir. 2018;50:19-21. [2] Ge Y, Li F, Chen J, Tian J. Severe Carpal Tunnel Syndrome Caused by Gouty Tophi Diagnosed by Dual Energy Computed Tomography: Case Report. Arch Rheumatol. 2016;31:284-86
- [3] Chen CK, Chung CB, Yeh L, Pan HB, Yang CF, Lai PH, Liang HL, Resnick D. Carpal tunnel syndrome caused by tophaceous gout: CT and MR imaging features in 20 patients. AJR Am J Roentgenol. 2000;175:655-9.
- [4] Lu H, Chen Q, Shen H. A repeated carpal tunnel syndrome due to tophaceous gout in flexor tendon: A case report. Medicine (Baltimore). 2017;96:e6245.