New disease

Pseudo triggering finger caused by a giant cell tumour of the extensor aspect of the right index finger

Thisara Weerasuriya, Raja Swaminathan

Orthopaedics Department, Tameside Hospital, Ashton-under-Lyne, UK

Correspondence to Mr Thisara Weerasuriya, drthisara@yahoo.co.uk

Summary

Pseudo-triggering of a finger due to a giant cell tumour of the dorsal aspect of a finger has not been reported in the literature. Hence the authors wish to report this unique case of interest.

BACKGROUND

Numerous causes for pseudotriggering of fingers have been reported in the literature. However this is the first case where a giant cell tumour of the dorsal aspect of a finger is reported to cause triggering.

CASE PRESENTATION

A 66-year-old lady presented to a new patient clinic for orthopaedic patients with a history of triggering of her right index finger over a period of 8–9 months. She had also noticed a slow growing lump on the dorsal aspect of her right index finger almost of the same duration. The lump was not painful and she was unable to recall any history of trauma preceding the lump. The patient was not known to suffer from rheumatoid arthritis and was not a diabetic. She was otherwise fit and healthy who was actively engaged in her hobbies. As she was right hand dominant, the lump and the triggering were interfering with her life style.

DIFFERENTIAL DIAGNOSIS

A1 pulley triggering being the commonest cause for trigger finger was excluded on clinical grounds.

TREATMENT

An exploration and on an elective basis, a solid mass was found on the dorsal aspect of the right index finger extending under the extensor expansion mechanism of the index finger, protruding between the angle of the lateral band and the middle band of the extensor expansion (figures 1–3). Further exploration revealed further extension of the lump proximally and distally under the extensor expansion. The lump was completely excised and sent for histology. Intraoperatively, the triggering was noted to be due to the lateral band of the extensor expansion slipping over the lump during flexion of the index finger and blocking full extension as in a classical flexor triggering. Following the excision of the lump, the triggering improved completely.

OUTCOME AND FOLLOW-UP

Histology of the lump was of a nodular tenosynovitis of the extensor tendon sheath also known as a giant cell

tumour of the tendon sheath. No evidence of malignancy was found.

Following the excision of the lump, the triggering improved completely. At 6 months follow-up, the patient was asymptomatic and there was no evidence of recurrence of the giant cell tumour.

DISCUSSION

A literature search of PubMed using the search word ‘trigger finger’ revealed 561 articles without any reported cases of a trigger finger caused by a giant cell tumour in the extensor expansion. We wish to report this unique case of

Figure 1 The giant cell tumour on the finger.

Figure 2 Close up of the tumour.

trigger finger, caused by a giant cell tumour of the extensor expansion as the cause of triggering.

Reported causes in the literature include idiopathic, lipoma, osteochondroma, neurilemmoma, giant cell tumour, foreign body granuloma, bone exostosis, fibrotic nodule from old laceration and deposit nodules from systemic diseases such as diabetes mellitus, amyloidosis, mucopolysaccharidosis and rheumatoid arthritis.^{1–12} One case had been reported as an unusual case of triggering due to a cavernous haemangioma.¹²

Aetiology of a trigger finger can either be diffuse or nodular tenosynovitis.² Diffuse tenosynovitis causes include systemic disease such as diabetes mellitus, amyloidosis, mucopolysaccharidosis, infection and rheumatoid arthritis while causes for nodular tenosynovitis include isolated rheumatoid nodule, fibrotic nodule, giant cell tumour and idiopathic.^{3–12}

The classical treatment of trigger finger due to tenosynovitis of the flexor tendon is a A1 pulley release.^{1 2} However, in this instance, the triggering was due to a lump on the dorsal aspect of the index finger and exploration and excision of the implicated lump was necessary.

A medially skewed incision sited over the extensor expansion of the index finger was made having achieved a bloodless field without exsanguination. Excision of the entire lump relieved the triggering, as the slipping of the lateral band of the extensor expansion was prevented with the lump being out of its path.

Histology revealed a nodular lesion with cells containing regular small dark nuclei, several multinucleated giant cells and deposits of haemosiderin, which was compatible with a giant cell tumour of the tendon sheath. No histological evidence of malignancy was found.

Figure 3 The giant cell tumour pushing the lateral band away.

Learning points

- ▶ Giant cell tumour can be cause for pseudo triggering.
- ▶ It is more common on the flexor aspect.
- ▶ Even a dorsal giant cell tumour could be a cause for triggering as indicated in this unique case report.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. Ryzewicz M, Wolf JM. Trigger digits: principles, management, and complications. *J Hand Surg Am* 2006;**31**:135–46.
2. Saldana MJ. Trigger digits: diagnosis and treatment. *J Am Acad Orthop Surg* 2001;**9**:246–52.
3. Al-Harthi A, Rayan GM. Phalangeal osteochondroma: a cause of childhood trigger finger. *Br J Plast Surg* 2003;**56**:161–3.
4. Bilos ZJ, Hui PW, Stamelos S. Trigger finger following partial flexor tendon laceration. *Hand* 1977;**9**:232–3.
5. Cordiner-Lawrie S, Diaz J, Burge P, et al. Localized amyloid deposition in trigger finger. *J Hand Surg Br* 2001;**26**:380–3.
6. Freund EI, Weigl K. Foreign body granuloma. A cause of trigger thumb. *J Hand Surg Br* 1984;**9**:210.
7. Lee SJ, Pho RW. Report of an unusual case of trigger finger secondary to phalangeal exostosis. *Hand Surg* 2005;**10**:135–8.
8. Robb JE. Trigger finger due to neurilemmoma in the carpal tunnel. *Hand* 1978;**10**:299–301.
9. Suematsu N, Hirayama T, Takemitsu Y. Trigger wrist caused by a giant cell tumour of tendon sheath. *J Hand Surg Br* 1985;**10**:121–3.
10. Tohyama M, Tsujio T, Yanagida I. Trigger finger caused by an old partial flexor tendon laceration: a case report. *Hand Surg* 2005;**10**:105–8.
11. Young L, Holtmann B. Trigger finger and thumb, secondary to amyloidosis. *Plast Reconstr Surg* 1980;**65**:68–9.
12. Rankin EA, Reid B. An unusual etiology of trigger finger: a case report. *J Hand Surg Am* 1985;**10**(6 Pt 1):904–5.

This pdf has been created automatically from the final edited text and images.

Copyright 2011 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.

BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Weerasuriya T, Swaminathan R. Pseudo triggering finger caused by a giant cell tumour of the extensor aspect of the right index finger. *BMJ Case Reports* 2011;10.1136/bcr.07.2011.4560, date of publication

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow