



Carpal tunnel syndrome without numbness

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Introduction

Numbness/paresthesia in the median nerve distribution are hallmark symptoms of carpal tunnel syndrome. An atypical case with just thenar muscles atrophy and thumb pain is reported.

The Case

A 66-year old woman with diabetes, hyperlipidaemia and obesity attended a GOPC in October 2019 complained of an insidious onset of right thumb pain since 6 months ago. The pain had been worsening. She noticed atrophy of her right thenar eminence. She reported no numbness/paresthesia over her fingers nor wrist. Examination showed right thumb metacarpophalangeal joint tenderness without abnormal mass. There was marked wasting of her right thenar muscles (Figures 1&2) with weakness of the thumb. X-ray right thumb: satisfactory alignment; Degenerative changes at interphalangeal joint. CXR was unremarkable.

She was referred to the public sector orthopaedic specialist as per her request. Her right thumb's abduction power was graded as 2/5; Tinel's, Durkan's and Phalen's tests were all positive upon being seen by O&T a few months later. No abnormality was detected over her right elbow, other myotomes nor dermatomes. The impression was carpal tunnel syndrome. Early NCV was arranged and she was put on list for surgery. Meanwhile, she was referred to occupational therapist for wrist splint.

Result

NCV confirmed the patient had severe right carpal tunnel syndrome.

Discussion

Carpal tunnel syndrome is a common disorder with an estimated prevalence of 1-5% in the general population.¹ Risk factors include obesity, female gender, genetic predisposition, aromatase inhibitor use, co-existing conditions like diabetes, pregnancy, rheumatoid arthritis, hypothyroidism, connective tissue diseases, etc.¹ The patient described in this case presented atypically with right thumb joint pain and atrophy of thenar muscles only. She did not volunteer any numbness nor paresthesia. Nonetheless, early referral to orthopaedics is mandatory as definitive treatment can be offered promptly.

Apart from carpal tunnel syndrome, family physicians should also beware of Pancoast tumor as an important differential diagnosis when patients present with small hand muscles atrophy.

Conclusion

Family physicians should be alerted to the finding of thenar muscles atrophy and proceed with referrals and further investigations to find out the underlying cause.



Figure 1: Patient's right hand with marked thenar muscles atrophy



Figure 2: Patient's normal left hand (for comparison)

References:

1. Milind J Kothari. Carpal Tunnel Syndrome: Clinical manifestation and Diagnosis [Internet]. UpToDate Topic 5288 Version 29.0; Last update: 18 June 2020 [cited 2020 Aug 11]. Available from: <https://www.uptodate.com/contents/carpal-tunnel-syndrome-clinical-manifestations-and-diagnosis>