The Hand Patient

A Selection of Case Studies for Quick Reference

Having had the pleasure to teach and train students for many years, and the privilege of having patients referred to me by ex-student General Practitioners, one realizes that medical school training can only impart but a general overview of knowledge. It is impossible and unfair to expect of any medical student to "know it all".

For this reason continuing medical education, or Continuing Professional Development (CPD) as it is now known in South Africa, is imperative.

This post-graduate training should however, be presented in such a way that the busy practitioner readily has access to the relevant information in a succinct form and in an understandable jargon.

Communication between the referring doctor and the specialist should not only include information regarding that particular patient, but should also contain some informative detail on the pathology and management.

This continuing education is part of the responsibilities of a consultant specialist.

It is sincerely hoped that this edited collection of selected case reports will promote a well-informed communication between the practitioner and his/her "hand patient".

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De Quervain Stenosing Tenosynovitis

Dear Colleague

RE: YOUR PATIENT WITH PAIN IN THE THUMB AND HARD NODULE ON THE RADIAL SIDE OF THE WRIST

Thank you for the referral of Ms D Q, 24 year old right handed data processor who has been complaining of a painful right thumb, inability to extend the thumb and a hard nodule on the radial side of her right wrist for the last 6 months. This condition started spontaneously with no history of injury or overuse. It impinges on her work when she uses the keyboard and has difficulty in lifting heavy objects such as files. Things tend to fall out of her hand.

On **examination** Ms Q shows no neurovascular abnormalities in both hands. On local inspection, she has a definite tender hard swelling of about + cm by + cm on the radial styloid. With percussion she has local tenderness as well as pins and needles in the radial nerve distribution over the thumb and the first web space. This is the type of pain which she experiences during her daily activities. The pain is further enhanced by gently pressing on the hard nodule and requesting the patient to flex and extend her thumb. One could clearly feel crepitus of the tendons which run through the little nodule, i.e. the abductor pollicis longus and the extensor pollicis brevis. One could also feel the unevenness of the tendon as it moves in and out of the tunnel. Clutching the thumb in the palm by the other fingers and gently forcing the wrist in ulnar deviation causes acute pain. (Finkelstein test).

Since the diagnosis is quite clear **special investigations** are not necessary.

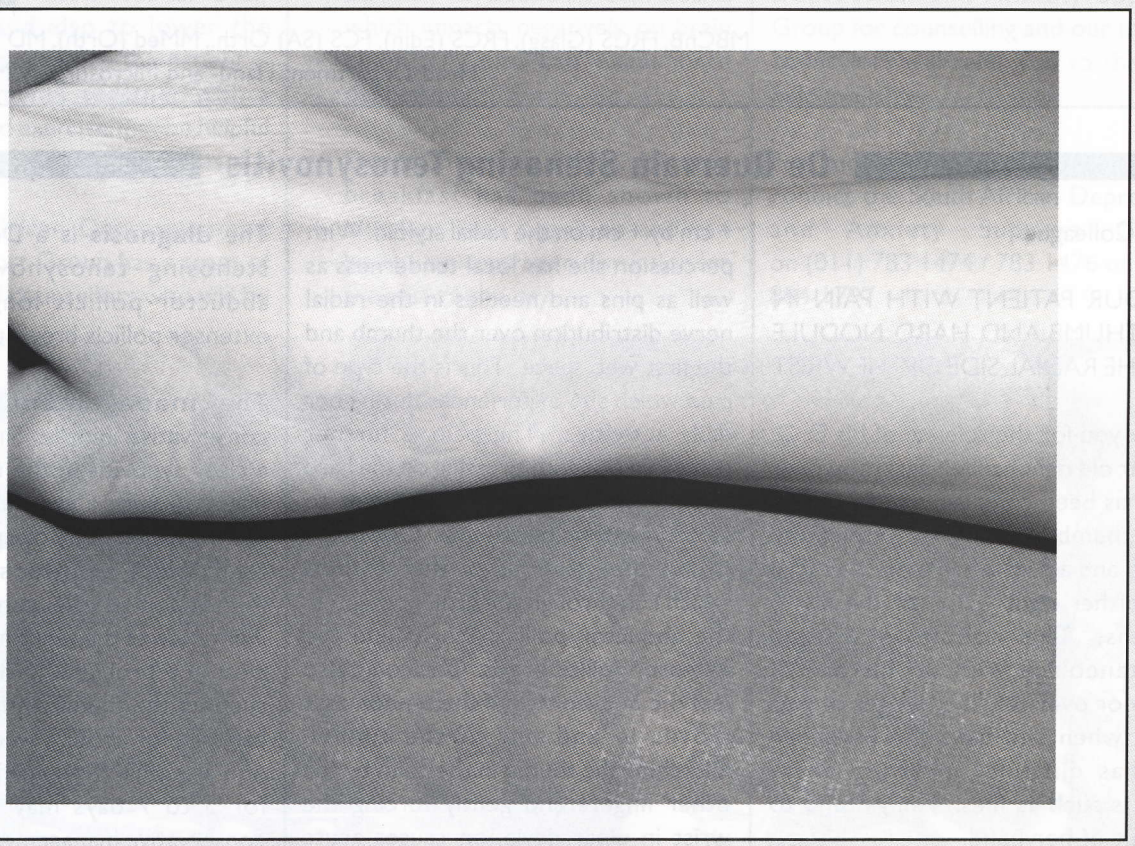
The **diagnosis** is a De Quervain's stenosing tenosynovitis of the abductor pollicis longus and the extensor pollicis brevis tendons.

The **management** should be conservative initially. Since Ms Q has a clear synovitis in the tunnel, a local injection with a steroid preparation such as Celestone/Soluspan and a long acting local anaesthetic such as Macain injected into the tunnel without infiltration of the tendons, would often clear the problem. One should also support the thumb with a firm crepe bandage for about a week. Additional non-steroidal anti-inflammatory drugs for 5 to 7 days may augment the conservative management. Should the injection be unsuccessful, one may consider a second injection. This should however, be done very carefully lest the cortisone is injected into the tendon. This may cause a future rup-

ture of the tendon. If conservative management is not successful a surgical release is indicated. A 2cm oblique incision is made carefully through the skin only, taking great care not to damage the delicate superficial branches of the radial nerve. Should one of these branches be injured, neuroma formation is inevitable with very painful consequences. These branches are carefully pushed aside until the nodule and the APL and EPB tendons are identified. The nodule is excised and the tunnel released. Invariably one finds many more than the two tendons. These tendons may often run in at least two tunnels. The variation should carefully be explored and noted. The skin is carefully closed again, taking great care not to involve the superficial radial nerve branches. A volar splint is applied supporting the thumb in abduction for five days only. The patient is encouraged to use the thumb after removal of the splint. A scar massage is strongly advised to prevent adhesions.

DISCUSSION:

De Quervain stenosing tenosynovitis usually occurs in the young female. However, one finds it as an acute occurring condition in people who are not accustomed to a DIY job, such as tiling the kitchen floor over the weekend. The over extended and overused thumb presents with acute teno-synovitis without the characteristic nodule at the entrance of the tunnel. These patients usually respond very well to cortisone injections with or without additional non-steroidal anti-inflammatory drugs and splinting for a few days. One occasionally sees a young nursing mother with the same condition. This classically described a cause for De Quervain's disease is due to the abducted position of the thumb while the mother supports the head of the nursing baby. Again conservative management should usually suffice in the situation. The deferential diagnosis should exclude scaphoid pathology, scapho-radial osteo-arthritis, scaphoid-trapezium-trapezoid (STT) osteo-arthrosis, osteo-arthrosis of the first carpo-metacarpal joints, and even scapho-lunate and lunate pathology. Should these conditions be suspected, plain radiographs of both hands should reveal the diagnosis.



De Quervain Stenosing Tenosynovitis

The tender and hard nodule on the radial side of the radius styloid process is usually indicative of a cartilaginous tunnel entrance. Surgical excision as well as a synovectomy of the tendons is indicated. Always explore for more than one tunnel.