

# Soft Tissue Atrophy Following Repeated Corticosteroid Injection for De Quervain's Tenosynovitis

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## Abstract

We present a case of soft tissue atrophy following repeated corticosteroid injection for De Quervain's tenosynovitis.

## INTRODUCTION

De Quervain's tenosynovitis is a painful condition involving a narrowing process of the tendon sheaths of abductor pollicis longus and extensor pollicis brevis tendons. It was first described by Fritz de Quervain, a Swiss surgeon, in 1895 (1). Many forms of treatment have been suggested for this condition since, however the greatest body of evidence suggests that the best therapeutic approach is corticosteroid injection (2, 3, 4, 5).

The literature does not report any significant morbidity following corticosteroid injection apart from a slight increased risk of infection. We present a case of atrophy of subcutaneous tissue following repeat corticosteroid injections for the treatment of de Quervain's tenosynovitis.

## CASE REPORT

A 40 year old right hand dominant house wife presented to our orthopaedic outpatient clinic with a seven month history of a painful left wrist. The initiating event was an undisplaced fracture of the left radial styloid that was successfully treated in a plaster cast resulting in bony union. Unfortunately, following this event she started experiencing pain over her first dorsal compartment. Clinical examination at that time by her General Practitioner revealed a tender abductor pollicis longus tendon and a positive Finklestein's test, thus the diagnosis of trauma induced De Quervain's tenosynovitis was made.

The patient underwent local anaesthetic and cortisone injection at that consultation, however it was unsuccessful. Over the seven month period, the patient underwent two further corticosteroid injections into the first dorsal compartments due to failure of response.

At review in our orthopaedic clinic it was noticed that the patient had undergone significant soft tissue wasting surrounding the abductor pollicis longus tendon of the left wrist (figure 1 and 2). This is a rare complication of corticosteroid injections in this area, and its occurrence makes surgical intervention much more difficult.

## Figure 1

Figure 1 and 2



Picture showing the subcutaneous atrophy surrounding the

abductor pollicis longus tendon.

## **DISCUSSION**

A pooled quantitative literature evaluation found that corticosteroid injection cured 83% of cases of de Quervain's tenosynovitis, significantly better than that of splint (14%) or rest alone (0%, 2). However, if corticosteroid injection fails surgery should be considered (4, 6). Repeat corticosteroid injection in this case has caused the atrophy of subcutaneous tissues surrounding the abductor pollicis longus tendon. The result of which is an increased risk of complications, such as wound breakdown and infection, should we proceed with surgery.

In conclusion, in cases of de Quervain's tenosynovitis who have had a failed attempt of corticosteroid therapy, early referral for surgery should be instituted. Further corticosteroid injection may hinder surgical intervention and should be withheld.

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