Fibromatosis of the flexor pollicus longus tendon

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ABSTRACT

An unusual case of fibromatosis of the dominant left flexor pollicus longus (FPL) in a thirteen year old schoolboy. Initially presenting with pain in the thenar eminence and difficulty flexing the metacarpal phalangeal joint (MPJ), other symptoms include locking, triggering and difficulty writing. MRI showed a 4cm segment of thickened abnormal tendon. Intra-operatively three 1cm nodules were excised from the FPL while preserving the tendon. Histopathology reported the nodules as fibromatosis. A literature search revealed that this has not previously been reported although symptomatic tendon sheath fibromas have. Our patient achieved a good result following surgical intervention and the two year review has shown no complications.

INTRODUCTION

Fibromatosis is a condition whereby multiple fibromas develop. We present an unusual case of fibromatosis of the flexor pollicus longus, in a young man, causing pain and functional impairment.

CASE REPORT

A thirteen year old left handed schoolboy presented initially to the orthopaedic team with a six month history of pain in his left thumb. This was localised to the thenar eminence and associated with difficulty flexing the thumb, particularly at the metacarpal phalangeal joint (MPJ). He also complained of locking, triggering and difficulty writting. There was no history of trauma and no past medical history of note. On examination he had palpable thickening over the flexor pollicus longus in the thenar eminence. Due to his age and that the palpable thickening did not appear discrete, a simple diagnosis of trigger thumb was questioned and further investigations arranged. An MRI scan of the thumb showed a 3-4cm segment of abnormal tendon with increased fluid surrounding it. At the maximum diameter it was two and half times larger than the right side. The MRI report suggested that the appearance was unusual and that it was most likely due to a chronic inflammatory reaction, but as there was no history of penetrating injury that an alternative diagnosis, such as tumour, should be considered. He was referred to the plastics team and at his initial consultation his symptoms of locking, triggering, pain and difficulty writing were beginning to settle and so he was initially treated conservatively. Unfortunately several months later he fell awkwardly on to his left thumb and his symptoms recurred. The pain did not settle and he was scheduled for surgical exploration. This was performed under general anaesthetic and tourniquet control. Three fleshy 1cm nodules were seen to be arising from his FPL were excised (see Fig 1) and forwarded for histopathology. Clinically they had invaded the tendon and were causing some

degenerative changes to the tendon itself. The tendon was compressed. The A1 pulley was normal.

The histopathology report stated the nodules from the FPL were fibromatosis, and that synovium sent with the nodules was reported as normal. Post-operatively his wounds healed well with no complications and he was referred for hand physiotherapy. During his first year post-operatively he experienced three episodes of pain and swelling in his left thumb after lifting heavy objects. This was felt to be flexor tenosynovitis. Since then he has had few reported problems, with only occasional pain when writing for long periods. He has had no further triggering or locking of the thumb.

DISCUSSION

The definition of fibromatosis is “the simultaneous occurrence of a number of tumour like collections of fibrous tissue that actively spread to cause damage, such as keloid in formation in the skin and nodules and contractures in palms, hands and feet.” (1) This is distinct from a fibroma which is a non-malignant tumour of fibrous tissue. After performing a literature search we believe this has not previously been reported. There has been a case reported of intratendinous aponeurotic fibroma within the substance of the flexor pollicus longus by Moskovich. (2) This was excised without sacrificing the tendon and the patient obtained a good result. There are also several reports of fibroma of the tendon sheath which is distinct from the tendon. This condition was reported as a case of trigger finger and also as causing trigger wrist. (3,4,5) Our patient presented with trigger thumb, a common condition which is either congenital or acquired. The acquired condition may be either primary or secondary. Primary triggering is most common in middle aged women where palmar pain radiating to the digit gradually worsens. Secondary triggering is seen when associated disease processes are present such as rheumatoid arthritis, diabetes mellitus, gout or renal disease. Other conditions which cause a change in the relative volume of the tendon, or the fibro-osseous canal also fall into this category. These include masses within the flexor tendon, or the tendon sheath such as intratendinous fibromas, giant cell tumours, flexor tendon xanthomas and lipomas. The decision to operate was taken upon the fact that the he was symptomatic and the MRI, although showing an abnormality, was inconclusive. Our patient achieved a good result from surgical intervention with careful dissection of the nodules on his flexor pollicus longus. He has been reviewed two years post-operatively with no complications.

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