Refractionist's shoulder?

BY ANDY TURNBULL

After hearing the letter-box, I walked to the front door and stooped down to collect my latest edition of *Eye News*. I winced. Still, at least it would give me something to pass the time on this, my first day off sick since starting ophthalmic specialist training. Fumbling with just my right hand, I eventually got the magazine out of its envelope. As is my custom, I scanned the contents page to see if any of my ophthalmic acquaintances had contributed to this edition. Alas, they hadn't. But what was this – 'The ophthalmologist's elbow' – an article about olecranon bursitis secondary to slit-lamp use [1]?

I read the article with great interest as I am currently struck down by a similar affliction. Two days earlier, during a day involving paediatric refraction in the morning and intravitreal injections in the afternoon, I had begun to struggle with my non-dominant, left shoulder. Every time I lifted my arm to hold a lens in front of a wriggling toddler's eye who was refusing a trial-frame, my arm felt weak and sore (Figure 1). "I must have slept on it awkwardly," I thought to myself. "It'll settle as the day goes on." But the aching worsened.

The injection list passed uneventfully, but after managing to get home, my shoulder became acutely painful, to the extent that any movement was agony. Being an ophthalmologist and knowing no anatomy below the head, I decided to consult Doctor Google in order to work out what was wrong with me. At this point, I realised that I couldn't even get my iPhone out of my left trouser pocket, such was the pain and limitation of movement. Fortunately my wife (a nurse, helpfully) was on hand to help out, and on to Google we went. This provided a differential diagnosis, but we decided that it couldn't possibly be any of those dreadful things which affect people much older than myself, and I must simply have strained a muscle and all would be well in the morning. Dosing up with codeine, I managed to get off to sleep.

Waking the next morning, things had worsened. My wife had to help me get out of bed, and then assist me to get dressed. The shirt going over my shoulder was excruciating, and I started to worry. I examined myself and found an exquisitely

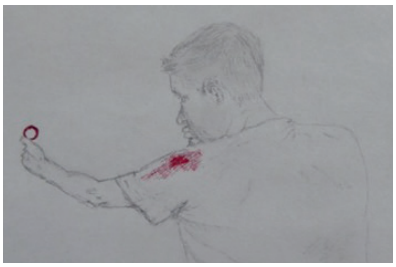

Figure 1: The precipitating movement?

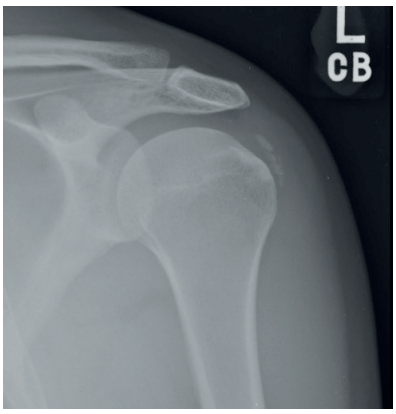

Figure 2: X-ray of author's left shoulder, demonstrating calcific deposits in the region of the supraspinatus tendon.

tender point in my left gleno-humeral joint. Realising I couldn't drive, I asked my father-in-law to pick me up and take me to work. I knew I wouldn't be any use in theatre that morning, but at least I'd be in the right place to hopefully find somebody who could make a diagnosis and fix me before clinic in the afternoon.

I explained the problem to my boss, before bleeping the on-call orthopaedic SpR and ending up in A&E for an x-ray. The A&E consultant examined me, before grimly informing me that, "The x-ray is unequivocal (Figure 2), you have calcific tendonitis of your supraspinatus. It can take weeks to months to improve, and after that you may be left with reduced function. You'll need rest, physiotherapy, possibly a steroid injection and sometimes even an arthroscopy."

Calcific, or calcifying, tendonitis is a result of crystalline hydroxyapatite deposition in the rotator cuff tendons, usually supraspinatus and most commonly affecting women aged 30-50 years [2]. Being male and having just turned 29, this upset me. The cause is unknown, and many cases will be asymptomatic. When the crystals resorb, an acute inflammatory cascade can be triggered, with leakage of calcific deposits into the subacromial bursa resulting in severe pain and reduced range of movement [2]. This acute phase may resolve spontaneously within a few weeks, with chronic but milder symptoms lasting months to years.

Shocked, I returned to the Eye Unit with my arm in a sling. After telling those who needed to know of my problem, my brother-in-law kindly collected me and took me home. The following day, my GP gave me a delightful intra-articular steroid injection and I organised a physio appointment to get my rehab started as soon as possible.

This n=1 study is under-powered to show any significant associations, that is for sure. However, I had recently started a firm involving four weekly paediatric / refraction clinics, and it was the motion of holding up lenses which had initially made me notice the problem. On mentioning this to our principal optometrist, he wryly acknowledged that, "Well, those trial lenses are extremely heavy..." Nonetheless, if olecranon bursitis can be blamed on slit-lamp usage [1], then I think my acute flare-up of tendonitis could be attributed to refracting. Alternative hypotheses include multiple intravitreal injection lists, frequent slit-lamp usage holding up those even heavier Volk lenses, or – most likely – just bad luck. However, I am confident that with the right treatment, I'll be back to all those activities in the very near future!

References

1. While B. The ophthalmologist's elbow: a potentially painful point of contact. *Eye News* 2015;**21(5)**:32.
2. Woodward AH. Calcifying tendonitis. Medscape eMedicine Drugs and Diseases 2013 [Online]. http://emedicine.medscape.com/article/1267908-overview Last accessed March 2015.

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