Unusual association of diseases/symptoms

Synovial osteochondromatosis associated with osteoarthritis causing ulnar nerve palsy

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Correspondence to Mr Thisara Weerasuriya, drthisara@yahoo.co.uk**Summary**

Synovial osteochondromatosis has been described in the knee joint commonly but this case was in the elbow and was associated with ulnar nerve palsy. Generally it has been the belief that synovial osteochondromatosis is not associated with osteoarthritis of the joint but, in this case it was clearly associated with osteoarthritis of the elbow. Therefore the authors wish to report this case of a rare condition with an unusual association.

BACKGROUND

Synovial osteochondromatosis is not a common condition and its association with nerve palsy and osteoarthritis of the affected joint is not commonly reported. Hence, we wish to report this unusual combination of conditions in this case report.

Figure 1 MRI of elbow showing ectopic foci of cartilage numbering more than five and demonstrating the typical rounded uniform appearance of the loose bodies with calcifications.

CASE PRESENTATION

A 68-year-old gentleman presented to our orthopaedic new patients clinic with clinical features of right ulnar nerve palsy accompanied with restriction of movement and locking of the elbow. Extension was 160 degrees. His dominant hand was affected with paraesthesia of the ulnar nerve territory of the hand and fingers and clinical examination showed wasting of the hypothenar eminence and

Figure 2 Surgical exposure and loose bodies.

Figure 3 The loose bodies removed.

sensory impairment of the ulnar 1½ fingers. A positive Tinel's was detected at the elbow.

INVESTIGATIONS

The nerve conduction study showed ulnar nerve conduction velocity reduction in the right elbow (figure 1). The elbow x-rays showed florid calcified loose bodies in the elbow both anteriorly as well as posteriorly, suggestive of synovial osteochondromatosis which was supported by an MR scan of the elbow (figures 2 and 3). The radiographs also demonstrated changes of osteoarthritis of the elbow.

DIFFERENTIAL DIAGNOSIS

In the elbow, myositis ossificans would be an important differential diagnosis but, the radiological appearance is distinct in the latter from synovial osteochondromatosis.

TREATMENT

The patient subsequently underwent an exploration of the elbow through the posterior midline approach (figure 4). All loose bodies of the elbow were removed, the prominent osteophytes of the olecranon process were excised and the ulnar nerve was decompressed (figure 5). At a 3 month follow-up, the paraesthesia of the ulnar nerve territory of the right hand had completely improved and the patient was once more engaged in his daily routine.

OUTCOME AND FOLLOW-UP

At a 6 month follow-up, the patient was symptom free and engaged in his normal daily routine.

Figure 4 MR arthrogram of elbow showing ectopic foci of cartilage numbering more than five.

Figure 5 X-ray of elbow showing the loose bodies.

DISCUSSION

A PUBMED search with the key words synovial osteochondromatosis of the elbow joint revealed 77 articles with a handful of case reports of ulnar nerve palsy caused by synovial osteochondromatosis. Hence we wish to report this case.

Primary synovial osteochondromatosis is a disorder about which little is known.¹ The criteria for diagnosis is unclear.¹ Clinically the presentation may vary from pain and restriction of elbow movement to nerve compression symptoms.^{2,3} The inability to extend the elbow is thought to be the first symptom¹ followed by locking.⁴ Primary osteochondromatosis and secondary osteochondromatosis are described in the literature.¹ Ulnar nerve symptoms have been described in both conditions.¹ The natural history of synovial osteochondromatosis entails gradual progression of disease, joint deterioration and secondary osteoarthritis. The association of synovial osteochondromatosis with secondary osteoarthritis is reported to be non-existent or rare.^{5,6}

Both operative and non-operative management has been described in the case of this condition.¹ Most authorities recommend surgical intervention especially during the quiescent stage of the disease when the outcome is supposed

to be satisfactory.^{2 3 7} However, in our patient the presence of ulnar nerve compression symptoms warranted a surgical exploration. The reported incidence of recurrence is between 0% and 23%.^{5 7} We intend to follow-up our patient for recurrence.

Learning points

- ▶ Synovial osteochondromatosis is a rare condition that can affect any synovial joint.
- ▶ It can be associated with nerve palsies.
- ▶ The natural history of synovial osteochondromatosis entails gradual progression of disease, joint deterioration and secondary osteoarthritis.
- ▶ It can be associated with osteoarthritis of the affected joint.

Competing interests None.

Patient consent Obtained.

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