

APOPHYSITIS OF THE OLECRANON

A Report of Four Cases

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Apophysitis of the olecranon is described in one girl and three boys from 9 to 13 years of age. The symptoms were pain and tenderness and radiography showed fragmentation. The symptoms improved and disappeared with rest.

Key words: apophysitis.

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Apophysitis of the olecranon seems to be a very rare condition. To our knowledge only one certain (Hunter & O'Connor 1980) and one possible case (Francis et al. 1978) have previously been reported. In this paper four additional cases are described.

slight overlying soft tissue swelling. On physical examination this swelling could only be seen and palpated in one case (E.L.).

CASE REPORTS

A 12-year-old boy (UA) had pain in his left elbow after playing land-hockey 2 months earlier. On physical examination there was tenderness over the tip of the olecranon but no swelling and a normal range of motion. Radiographic examination showed fragmentation of the apophysis of the olecranon and a slight overlying swelling of the surrounding soft tissue (Figure 1). No treatment was given and 3 months later he was free from symptoms and the physical examination was normal.

All patients had tenderness over the tip of the olecranon. In one case (E.L.) there was a 10°-extension defect of the elbow, the other three having a normal range of motion. In all cases radiography showed fragmentation and irregularity of the apophysis of the olecranon and in three cases (J.P., E.L. and U.A.) a



Figure 1. In the left elbow fragmentation and irregularity of the apophysis of the olecranon.

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Table 1. Patients classified according to sex, side, age, trauma, treatment and duration of symptoms

Patient	Sex	Side	Age at onset of symptoms (years)	Trauma	Treatment	Duration of symptoms (months)
A.L.	F	Right	9	None	Local injection of steroid	1
J.P.	M	Right	11	None	None	8
E.L.	M	Right	14	Gymnastic training	Anti-inflammatory agent	22
U.A.	M	Left	12	Landhockey	None	3

DISCUSSION

Apophysitis of the olecranon seems to have the same origin as apophysitis of the tibial tubercle (Osgood-Schlatter) and of the apex of the patella (Sinding-Larsen, Johansson). The consensus is that trauma depending on strain and pull of the ligamentum patellae is the cause of these conditions. Opinion is still divided about whether the radiological findings are due to a heterotopic new bone formation in the patellar tendon or avulsion of cartilage fragments (Sharrard 1971, Tachdjian 1972).

Previously reported cases of apophysitis of the olecranon were all judged as secondary to a repeated trauma. Thus, the case reported by Francis et al. (1978) was a young baseball player and by Hunter & O'Connor (1980) a 15-year-old diver with triceps contractions at water impact.

Of our four cases, two had no history of trauma at all. The third case exercised at gymnastics very hard thus putting repeated stress on the olecranon by forceful triceps contractions. The symptoms in the fourth case came after playing land-hockey.

All patients sought medical advice because of pain. One patient (E.L.) showed bilateral fragmentation of the apophysis of the olecranon, but pain in one elbow only. This finding is consistent with Osgood-Schlatter's disease, where typical unsymptomatic lesions sometimes are seen.

None of the cases of apophysitis of the olecranon required any special treatment. In all cases the symptoms improved with rest and later disappeared.

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