

Dysplasia epiphysealis hemimelica of the talus (Trevor's disease) – a case report

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Citation

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Abstract

Dysplasia epiphysealis hemimelica is a rare skeletal disease characterized by asymmetric overgrowth of cartilage. It is a developmental disorder which is confined to the medial or lateral half of the epiphysis of a single limb. Though many cases of Dysplasia epiphysealis hemimelica are asymptomatic, but they can be troublesome when they cause mechanical and pressure symptoms depending on their size and location. Surgical treatment is mandatory when symptoms like pain, joint impingement or deformation are present.

CASE REPORT

A 10 year old male child Asian Indian in origin reported to us in our outpatient department as a case of swelling over anteromedial aspect of right ankle. The child had been managed by a general practitioner as a case of fracture talus with callus overgrowth. After reporting to us, a detailed history was taken and a thorough physical examination was done. No history of trauma was given and thus the diagnosis of fracture was excluded. The swelling had been present since 10 months and was increasing in size since it was first noticed. The increase in size was seen to be more rapid during the past two months prior to his seeking medical help. The patient also complained of pain aggravated by walking. On examination the patient had a firm to hard swelling on anteromedial aspect of ankle, bony in consistency. Lateral rotation around the ankle was restricted though rest of the movements was normal. The rest of the skeletal examination was unremarkable.

Radiographic examination of the ankle was done which revealed an oval bone tumor arising from the talus (Figure 1 and 2).

Figure 1

Figure 1- Digital x-ray oblique view of ankle



Figure 2

Figure2- Digital x-ray lateral view of the ankle



Surgical excision of the tumor was done and the specimen was sent for histopathological examination which proved it to be an osteochondroma. The patient was symptom free following surgical excision and was followed for 24 weeks with no recurrence of the disease.

DISCUSSION

Dysplasia epiphysealis hemimelica (DEH) or Trevor's disease is a rare skeletal disease characterized by asymmetric overgrowth of cartilage. The name is basically given to an osteochondroma which is hemimelic. DEH has better been defined by Fairbank as a developmental disorder which is confined to the medial or lateral half of the epiphysis of a

single limb [1]. The age of diagnosis is 2–14; it is rare in adult patients [2]. It is most commonly found in males, with a male-to-female ratio of 3:1 [3]. The etiology of DEH is unknown. Though many cases of DEH are asymptomatic, but they can be troublesome when they cause mechanical and pressure symptoms depending on their size and location. A swelling around a joint may be a cause of restricted mobility and painful on ambulation as was seen with our case.

Diagnosis of a case suffering from DEH is done using plain x-rays, CT Scan, MRI and some authors [4] recommend Scintigraphy even. Treatment of DEH includes surgical excision if the patient is symptomatic and observation if the patient is symptom free.

There is an incidence of 12% of Talar DEH out of all the cases. The primary symptom is a painless swelling which increases in size gradually. Mechanical symptoms are frequent, particularly due to articular or footwear impingement. Alterations of the range of motion of the ankle are frequent. Surgical treatment is mandatory when symptoms like pain, joint impingement or deformation are present.

References

1. Fairbank TJ Dysplasia epiphysealis hemimelica (tarsoepiphyseal acalasis). J Bone Joint Surg Br 1956; 38:237–257
2. Freihaut RB, O'Keane JC, Stephens MM Dysplasia epiphysealis hemimelica with associated osteochondromal lesion of the talus: a case report and review of the literature. Foot Ankle Int 2007 ;28(6):727–730
3. Kuo RS, Bellemore MC, Monsell FB, Frawley K, Kozlowsky K, Doc F Dysplasia epiphysealis hemimelica: clinical features and management. J Pediatr Orthop 1998; 18(4):543–548
4. Teixeira AB, De Camargo E, Elba C, Santos A, Lima M, Ramos C, Camargo EE Scintigraphic findings of dysplasia epiphysealis hemimelica: a case report. Clin Nucl Med 2001; 26(2):162–165.

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