Foot and Ankle Surgery 21 (2015) e51–e54

Contents lists available at ScienceDirect

Foot and Ankle Surgery

journal homepage: www.elsevier.com/locate/fas

Case report

Posterior talus osteochondroma a rare location, treated by posterior ankle arthroscopy

Umesh Kulkarni MS(Ortho), D.Ortho*, Ameya Kulkarni MB, BS

Sanjivan Hospital, Off Gangapur Road, Nashik 422013, Maharashtra, India

ARTICLE INFO

Article history:
Received 20 March 2015
Accepted 24 May 2015

Keywords:
Osteochondroma
Talus
Arthroscopy

ABSTRACT

The common cause of posterior ankle impingement syndrome is impingement of the Os trigonum or the posterior talar process. We report a case of a 46-year-old lady having osteochondroma of the posterior talar process, a rare occurrence at this site. This patient was treated with posterior ankle arthroscopic excision through the 2-portal posterior ankle arthroscopy technique in the prone position. 6 months post-operatively, her ankle pain disappeared and ankle range of movement improved significantly and there is no recurrence of the tumour.

1. Introduction

Osteochondroma are the most common bone tumours representing 20–50% of all benign bone tumours and 10–15% of all bone tumours [1]. Although ends of long bones are most frequently involved, other atypical locations such as ischium, tarsal bones, and patella have also been reported [2–4,12]. An osteochondroma of the talus especially a posterior talar osteochondroma is very rare and to the best of our knowledge, only one has been reported, that too a para-articular osteochondroma [5]. We present a case of a 46-year-old lady with a large posterior talar osteochondroma which was excised by the novel method of posterior ankle arthroscopy.

2. Case report

A 46-year-old lady reported to the outpatient clinic with pain in the right ankle and hindfoot since 2–3 years. She had difficulty in climbing up and down staircases, and her ankle got swollen on walking. She had noticed a hard lump on the posterolateral aspect of the ankle and restricted movement of the ankle for which she had taken treatment from her family physician. Pain and swelling of the ankle increased on walking or climbing stairs and decreased with rest. However, the lump never totally disappeared. There was no history of sudden recent increase in size of the lump.

Physical examination revealed a bony mass posterior to the lateral malleolus and the ankle joint, with fullness in the lateral hind foot region. Planter flexion was totally restricted and 5° of dorsiflexion was possible.

Anteroposterior, lateral and oblique radiographs revealed a bony mass arising from the posterior talar process. There was no erosion or rarefaction of the surrounding calcaneum, tibia or talus (Fig. 1).

Magnetic resonance imaging (MRI) showed a mass originating from the posterolateral talus with a thin cartilage cap which was in continuity with the cancellous part of the dome of the talus. There was no irregularity, lucency of the tumour nor any punctuate calcification of the surrounding soft tissues. No changes in the body of talus or the adjacent calcaneum were observed (Fig. 2).

Hindfoot arthroscopy was performed in the prone position by using the 2 portal posterior ankle arthroscopy approach as described by Van Dijk [14]. Posterolateral and posteromedial portals were made adjacent to the tendo Achillis on a line drawn from lateral malleolus parallel to the sole of the foot (Fig. 3). A plane was created using a shaver between the bony mass and the tibiotalar joint (Fig. 4). After confirmation of the position of the plane of dissection by fluoroscopy (Fig. 5), the bony mass was ostoetomised using an arthroscopic pick. The mass which was about 2 cm × 3 cm was delivered from the anteromedial portal by enlarging it a bit (Figs. 6 and 8). Histopathology confirmed findings consistent with osteochondroma with a catrtilagenous cap

* Corresponding author. Tel.: +91 253 2582615; mobile: +91 9823039788.
E-mail addresses: umesh_kulkarni76@yahoo.com (U. Kulkarni), ameya_u_k@yahoo.com (A. Kulkarni).

http://dx.doi.org/10.1016/j.fas.2015.05.011
1268-7731/

Fig. 1. X-ray showing dense posterior Talus osteochondroma.

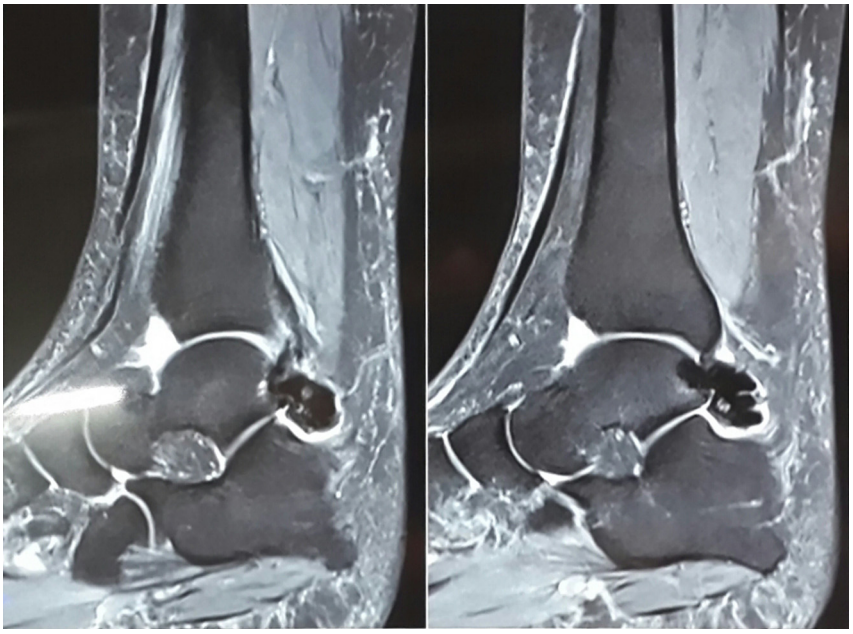

Fig. 2. MRI showing continuity with talus and thin cartilage cap.

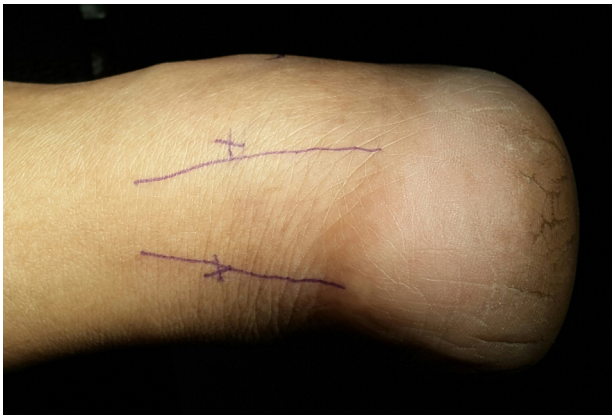

Fig. 3. Portal placement.

overlying bony trabeculae (Fig. 7). Six months later, the patients plantar flexion improved to 20° and her walking and stair climbing has become painless. There is no recurrence in 6 months.

3. Discussion

Osteochondromas are the most common bone tumours and may actually represent developmental lesions [1,9]. They develop during childhood during the growth period and up to the age of skeletal maturity [1,10]. Though they present early in life, some authors have documented a range from 8 years to 77 years at first presentation [11]. However osteochondromas of the talus are reported in the third to fifth decade of life [1,12,17,18]. In the present case too the presentation is late at the age of 46 years. An osteochondroma of the talus was first reported in 1984 by Fuselier [18]. Most of the reported cases of osteochondroma are of the neck