Chondroblastoma of the foot: 40 cases from a single Institution

Abstract ID : 1353
Submitted by : Ruggieri Pietro the 2016-02-17 04:57:13
Category : Others
Typology : Poster
Status : Validated
Authorisation to disclose : Yes/Oui

Introduction. Chondroblastoma of the foot is a rare lesion. We present our experience with chondroblastoma of the foot during a long-term experience in a single institution and discuss the related clinical in order to evaluate 1) clinical, histological and imaging findings of the chondroblastoma involving the foot, 2) the incidence of local recurrence, and 3) a review of the literature.

Material and Methods. We present 40 patients (30 males; mean age 25 years) diagnosed and treated for chondroblastoma in the foot from 1975 to 2012. Mean follow-up was 43 months. Clinical presentation, histology, imaging, surgical treatment and local recurrence were evaluated. Histologic diagnosis was established by open biopsy (30 patients frozen biopsy in the surgery) or trocar (10 patients). Ten patients (25%) had an aneurysmal bone cyst (ABC) associated. Furthermore we performed a search of the literature to identify patients who had been treated for chondroblastoma of the foot.

Results. Males were most affected than females: the ratio male to female was 3:1; however specifically in the talus this ratio was 4:1. Main symptom was pain (100%) accompanied by swelling (35%) with median duration of twelve months (range 12 to 36 months). Talus (50%) and calcaneus (37.5%) were the most affected bones. According to Enneking’s System, 38 patients (95%) were diagnosed at stage 2 and two (5%) at stage 3. All patients underwent surgery: curettage (10 cases), curettage and bone graft (15 cases), curettage and cement (13 cases), wide resection (1 case) and Chopart amputation (1 case). Ten patients (25%) had secondary aneurysmal bone cyst. The overall local recurrence rate was 2.5% (one patient) and time to progression was 24 months. None patient developed metastatic bone diseases.

Conclusion. Patients with chondroblastoma of the foot are usually older than 20 years and males are most affected. Hindfoot is the most affected area. Associated ABC has the same frequency as other sites. Intralesional surgery and packing with cement or graft is successful in tumor control. Local recurrence in foot is lower than in other locations and there is not relation with the histology of the tumor.

Keywords : Chondroblastoma; Foot; Tumor;

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