

28th Annual Meeting of the European Musculo-Skeletal Oncology Society 16th EMSOS Nurse and Allied Professions Group Meeting

April 29th - May Ist 2015 Athens, Greece



PP-073

Percutaneous CT-guided radio-frequency ablation of osteoid osteoma of the foot and ankle

K. Daniilidis^{1,2}, N. Martinelli¹, S. Hoell¹, M. Henrichs¹, B. Vogt¹, J. Hardes¹, V. Vieth³, G. Gosheger¹

¹ Orthopaedic and Tumororthopaedic Clinic, University of Münster, Münster, Germany

² Department of Foot and Ankle Surgery, Orthopaedic Clinic, Hannover Medical School, Hannover, Germany

³ Radiology Clinic, University Hospital of Münster, Münster, Germany

Introduction: Percutaneous radiofrequency ablation (RFA) has been considered, in recent years, the standard treatment for osteoid osteoma (OO) of the appendicular skeleton. The variable clinical presentations in the foot and ankle pose problems in diagnosis, localization and thus treatment. The aim of this study was to assess the efficacy of RFA for patients with osteoid osteoma of the foot and ankle

Materials and methods: A total of 29 patients (22 males, 7 females; mean age 16.7 years; range 8-44 years) with OO of the foot and ankle (distal tibia, n = 17; distal fibula, n = 6; talus, n = 3; calcaneus, n = 3) were enrolled in the study. A CT-guided RFA was performed, using a cool-tip electrode without the cooling system, heating the lesion up to 90_C for 4-5 min. Clinical success, assessed at a minimum follow-up of 1 year, was defined as complete or partial pain relief after RFA. Pain and clinical outcomes were scored pre-operatively and at the follow-up with a visual analogue scale (VAS) and with the American Orthopaedic Foot and Ankle Society (AOFAS) score. Complications and local recurrences were also recorded.

Results: Clinical success was achieved in 26 patients (89.6 %). After RFA, mean VAS and AOFAS score significantly improved from 8 ± 1 to 2 ± 1 (p\ 0.05) and from 60.7 ± 12.7 to 89.6 ± 7.1 (p\ 0.05), respectively. Two patients experienced partial relief of pain and underwent a second successful ablation. Local recurrences were found in three patients, always associated with pain. These underwent conventional excision through open surgery. No early or late complications were detected after RFA.

Conclusion: CT-guided RFA of foot and ankle osteoid osteoma is a safe and effective procedure, showing similar results for the rest of the appendicular skeleton.

Keywords: Osteoidosteoma; Radiofrequency ablation; Foot; Ancle; Benign tumor