

Osteoid Osteoma of the Talus: Case Report

F. Ezzaky^{1*}, M. Ramzi¹, S. Hosni¹, A. Dendane¹, A. Amrani¹, Z. El Alami¹, T. El Madhi¹¹Department of Pediatric Traumatology and Orthopedics, Children's Hospital of Rabat, Ibn Sina UHC/Mohammed V University, Faculty of Medicine and Pharmacy, Rabat, MoroccoDOI: [10.36347/sjmcr.2024.v12i04.010](https://doi.org/10.36347/sjmcr.2024.v12i04.010)

| Received: 29.02.2024 | Accepted: 02.04.2024 | Published: 13.04.2024

***Corresponding author:** Ezzaky Fatima Zahra

Department of Pediatric Traumatology and Orthopedics, Children's Hospital of Rabat, Ibn Sina UHC/Mohammed V University, Faculty of Medicine and Pharmacy, Rabat, Morocco

Abstract

Case Report

Osteoid osteomas are benign bone-forming tumors that typically occur in children (particularly adolescents). They have a characteristic lucent nidus <1.5 or 2 cm and surrounding osteosclerotic reaction, which classically causes night pain that is relieved by the use of the location of osteoid osteoma in the ankle is rare. We report the case of a young boy who had an osteoid osteoma of the talus.

Keywords: Osteoid Osteoma, Talus.

Copyright © 2024 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Osteoid osteoma was first described by Jaff in 1935. It is a benign osteoblastic tumor that has a small, fleshy, highly vascularized, osteoid, immature central lesion (the nidus) surrounded by reactive osteocondensation. It is most often discovered in adolescents and young adults. This lesion is preferentially located in the proximal femur. Locations at the ankle are less frequent.

OBSERVATION

B. A 13-year-old was admitted to our ward with chronic right ankle pain dating back 6 months. This pain gradually increases in intensity, but without triggering factors, especially trauma. This pain was inflammatory in nature. She also had no limitation of the range of motion of the ankle or other associated signs. Examination of the ankle showed an overall painful ankle, with no particular hyperalgesic pain points. Joint mobility was normal.

MRI of the ankle was performed objectifying an anomaly of the nodular signal juxta cortical of the astragalus in hypersignal T1 and T2 surrounded by an osteosclerosis liserie in hyposignal mesrant 16*15mm of major transverse axes. the inflammatory work-up was normal. The patient was operated on by an anterior approach, after scopic identification by a localization pin, The excision of this lesion was done with a curette. Histological study of the excision specimen revealed an osteoid osteoma of the talus.

DISCUSSION

Osteoid osteoma is a benign bone tumor, relatively common (12% of benign bone tumors). It mainly affects older children and adolescents, with a predominance of men. The damage is preferentially on the diaphysis of a long bone, especially on the femur and tibia. Localization at the level of the foot is much rarer and represents 2 to 10% of cases.

Pain is the main symptom. This pain is very intense nocturne. She usually gives in to NSAIDS.

On standard radiographs, the image suggestive of is aosteoid osteoma small gap always less than 1.5 cm, intracortical, surrounded by significant osteosclerosis. The nidus may contain calcifications.

CT also plays an important role in the preoperative diagnosis and detection of osteoid osteoma with the development of percutaneous resections.

On MRI, the intraosseous lesion appears as a T1 hyposignal and a T2 hypersignal that enhances after gadolinium injection.

The treatment of osteoid osteoma consists of a "block" resection, removing the entire nidus. Treatment must meet two imperatives: complete excision of the lesion in order to avoid recurrence and not to resect too widely, at the risk of causing fragility of the bone segment or causing growth disorders in children.



Figure 1: MRI of the ankle showing osteoid osteoma of the talus



Figure 2: X-ray registration of osteoid osteoma of talus

CONCLUSION

Osteoid osteoma is a benign tumor of osteoblastic origin. Localization of the astragalus is rare and often diagnosed late. Surgical treatment has benefited from advances in imaging and minimally invasive surgery techniques. The complete excision of the nidus results in a healing without sequelae.

REFERENCES

- Capanna, R., Van Horn, J. R., Ayala, A., Picci, P., & Bettelli, G. (1986). Osteoid osteoma and osteoblastoma of the talus: a report of 40 cases. *Skeletal radiology*, 15, 360-364.
- Chicoisne, M. P., Assoun, J., Giron, J., & Railhac, J. J. (1993). Ostéome ostéoïde. *Encycl Med Chir (Éditions Scientifiques et Médicales Elsevier SAS, Paris) Radiodiagnostic-Neuroradiologie-Appareil locomoteur*, 31-482-A-10, 7.
- Jaffe, H. L. (1935). Osteoid-osteoma: a benign osteoblastic tumor composed of osteoid and atypical bone. *Archives of Surgery*, 31(5), 709-728.
- Kransdorf, M. J., Stull, M. A., Gilkey, F. W., & Moser, R. P. (1991). Osteoid Osteoma. *Radio Graphics*, 11, 671-696.
- Kumar, R., Chandrashekhar, N., Dasan, J. B., Ashok, S., Rastogi, S., Gupta, V., ... & Choudhury, S. (2003). Recurrent osteoid osteoma: a case report with imaging features. *Clinical imaging*, 27(4), 269-272.
- Mohan, R., Karthikeyan, R., & Wray, C. C. (2000). Osteoid osteoma of the neck of the talus. *The Foot*, 10(1), 49-50.
- Spencer Jr, E. E., Beirman, J. S., & Femino, J. E. (2002). Osteoid osteoma of the fifth metatarsal: a case report and literature review. *Foot and Ankle surgery*, 8(1), 71-78.