

INTRA ARTICULAR OSTEIOD OSTEOMA PRESENTING AS ANKLE SYNOVITIS

Rahul Bhan

Senior Consultant Orthopaedics, SPS Hospitals, Ludhiana, India

ARTICLE INFO

Article History:

Received 06th April, 2020

Received in revised form 14th

May, 2020

Accepted 23rd June, 2020

Published online 28th July, 2020

Key words:

The patient had been worked up elsewhere and X-rays along with blood work and arthrocentesis had been performed.

ABSTRACT

A 16 year old male patient presented to our hospital with chronic swelling and pain of left ankle and gradually increasing restriction of movement. The patient had been worked up elsewhere and X-rays along with blood work and arthrocentesis had been performed. The patient was managed conservatively with rest and anti-inflammatory medication but was not relieved completely. At our hospital we performed repeat X-rays and MRI of the affected part. The radiological investigations revealed a circumscribed lesion in the distal epiphysis of tibia with a classic nidus. A preliminary diagnosis of osteoid osteoma was made. Although about 13% of osteoid osteomas are intra-articular, the ankle per se is a rare location for the same. The lesion was excised surgically with complete resolution of symptoms over a period of 3 months.

Copyright©2020. **Rahul Bhan**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

A 16 year old male patient presented to our hospital with chronic swelling and pain of the left ankle for the previous 8 months and with increasing restriction of movement of the ankle with subsequent difficulty in ambulation. The patient had been treated elsewhere with anti-inflammatory medication with some but not lasting relief of symptoms. The bloodwork and arthrocentesis performed elsewhere were large normal and inconclusive.

Physical examination revealed fullness of ankle and no other signs of inflammation. There was marked restriction of dorsiflexion of ankle.

The patient was subjected to repeat X-rays which could not contribute to the search for the diagnosis. Subsequently an MRI was performed which revealed a characteristic lesion about 1.5 cm in diameter with a nidus and a surrounding lucent zone in the distal tibial epiphyseal anterolateral region. There was significant synovitis of the ankle.

A surgical intervention was planned. With the patient under general anaesthetic and under tourniquet control, the ankle was exposed through an anterolateral approach. The lesion was identified and excised en masse after gentle prying at its base. There was no extension in the surrounding bone and situated at the anterolateral distal edge of tibia the distal cartilage was largely preserved. The wound was routinely closed over suction drain. Post operative period was uneventful. Histopathology confirmed the diagnosis.

The patient was kept off weight for 3 weeks and early range of motion exercises were instituted. There was complete resolution of symptoms at about 3 months of surgery.



Fig 1 Xray



Fig 2 and 3-MRI

***Corresponding author: Rahul Bhan**

Senior Consultant Orthopaedics, SPS Hospitals, Ludhiana, India

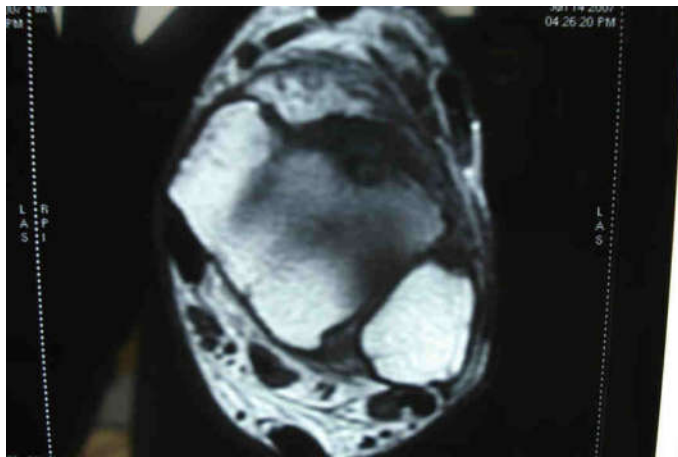


Fig 2 and 3-MRI



Fig 4 In situ at surgery

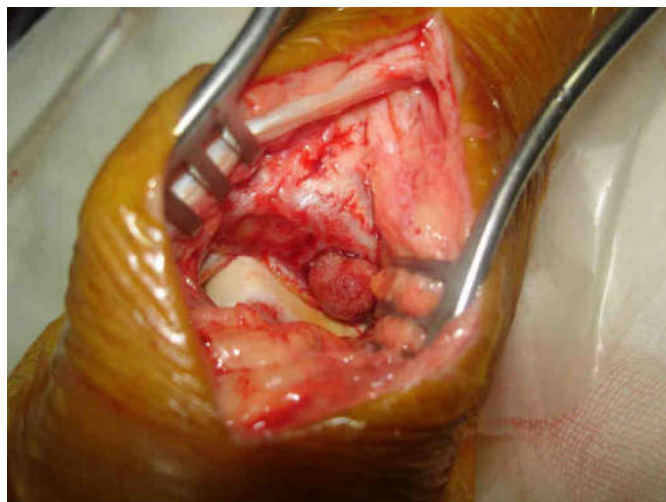


Fig 5 Excision

DISCUSSION

Patients of osteoid osteoma are typically in the age range of 5-25 and are rare after 30 years (1,2). Predominantly long bones and spine are affected but no bone is immune (3,4,5). Further osteoid osteomas can be cortical, cancellous, subperiosteal and about 13% are intra-articular (6).

Histologically the lesion has woven bone surrounding the nidus (7). The diagnosis can be made with plain X-rays and advanced imaging techniques like CT, MRI and bone scanning (8,9,10).

Surgical excision remains the most common treatment modality for accessible lesions (11). CT guided radiofrequency ablation is increasingly being used for inaccessible regions and cosmesis but has a recurrence rate of 5-10% (12).

References

1. H. L. Jaffe, "Osteoid Osteoma, a benign osteoblastic tumor composed of osteoid and atypical bone," *Archives of Surgery*, vol. 31, pp. 708-723, 1935.
2. Frassica FJ, Waltrip RL, Sponseller PD, Ma LD, McCarthy EF Jr. Clinicopathologic features and treatment of osteoid osteoma and osteoblastoma in children and adolescents. *Orthop Clin North Am* 1996;27:559-74.
3. M. H. Klein and S. Shankman, "Osteoid osteoma: radiologic and pathologic correlation," *Skeletal Radiology*, vol. 21, no. 1, pp. 23-31, 1992.
4. M. Campanacci, "Bone and soft tissue tumors," in Piccin Nuova Libreria, Padova, Enneking WF, Ed., pp. 391-414, Springer, Wien, 2nd edition, 1999.
5. Dahin DC. *Bone Tumors*. 3rd ed. Springfield, Illinois: Charles C Thomas; 1967.
6. M. Szendroi, K. Köllö, I. Antal, J. Lakatos, and G. Szoke, "Intraarticular osteoid osteoma: clinical features, imaging results, and comparison with extra articular localization," *The Journal of Rheumatology*, vol. 31, no. 5, pp. 957-964, May 2004.
7. M. S. Sherman, "Osteoid osteoma; review of the literature and report of 30 cases," *The Journal of Bone and Joint Surgery. American Volume*, vol. 29, no. 4, pp. 918-930, 1947.
8. Swee RG, McLeod RA, Beabout JW. Osteoid osteoma. Detection, diagnosis, and localization. *Radiology* 1979;130:117-23.
9. Gamba JL, Martinez S, Apple J, Harrelson JM, Nunley JA. Computed tomography of axial skeletal osteoid osteomas. *AJR Am J Roentgenol* 1984;142:769-72.
10. Bilchik T, Heyman S, Siegel A, Alavi A. Osteoid osteoma: The role of radionuclide bone imaging, conventional radiography and computed tomography in its management. *J Nucl Med* 1992;33:269-71.
11. Pfeiffer M, Sluga M, Windhager R, Dominkus M, Kotz R. Surgical treatment of osteoid osteoma of the extremities. *Z Orthop Ihre Grenzgeb* 2003;141:345-8.
12. Venbrux AC, Montague BJ, Murphy KP, Bobonis LA, Washington SB, Soltes AP, *et al.* Image-guided percutaneous radiofrequency ablation for osteoid osteomas. *J Vasc Interv Radiol* 2003;14:375-80.
