

Osteoid Osteoma In A Previous Fracture Site – A Rare Case Report

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Abstract

Osteoid osteomas are small, benign, osteogenic bone lesions, most commonly found in the proximal femur of individuals aged 5–25 years. They characteristically present with night pain relieved by non-steroidal anti-inflammatory drugs (NSAIDs) and a radiographic nidus <1.5 cm. However, their occurrence at a previous fracture site is extremely rare. We present a rare case of a 19-year-old male who developed an osteoid osteoma in the left distal tibia, at the exact site of a fracture sustained 5 years prior and treated conservatively. The patient presented with pain and swelling for 4 years. Imaging (X-ray and MRI) confirmed the lesion. The patient underwent curettage and excision biopsy, which provided immediate post-operative pain relief. At 12 days follow-up, the patient was symptomatically better and was immobilized with a slab for 6 weeks. This case highlights the importance of considering osteoid osteoma in patients with persistent post-fracture pain.

Keywords: Osteoid osteoma, Tibia fracture, Benign bone tumor, Rare case, Orthopedics, Case report, Curettage

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I. Introduction

Osteoid osteomas are small, benign, osteogenic bone lesions [2]. They are most commonly found in the proximal femur, typically affecting individuals in the age group of 5 to 25 years [4]. The characteristic clinical presentation includes night pain that is distinctively relieved by non-steroidal anti-inflammatory drugs (NSAIDs). Radiographically, they are identified by a typical nidus measuring less than 1.5 cm in diameter [3]. While common in long bones, the occurrence of an osteoid osteoma at the site of a previously healed fracture is an exceedingly rare phenomenon that warrants careful documentation [1].

II. Case Presentation

Patient: 19-year-old male

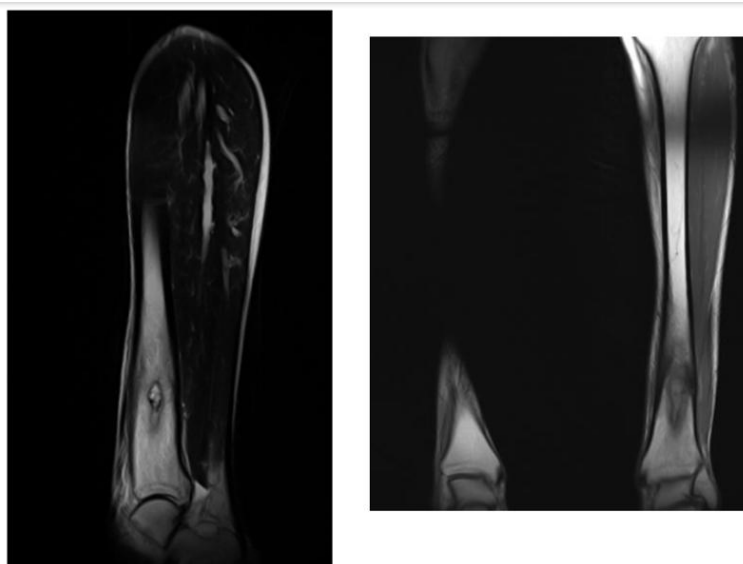
Chief Complaint: Pain and swelling in the left distal leg for 4 years.

History: The patient had a history of a left distal tibia fracture 5 years ago, which was treated conservatively with cast immobilization.

Investigations: X-ray and MRI of the left leg were performed, which demonstrated an osteoid osteoma in the left distal tibia, directly at the previous fracture site.



[Figure 1: X-ray showing distal tibia osteoid osteoma at the previous fracture site.]



[Figure 2: MRI demonstrating the osteoid osteoma lesion.]

Management:

Surgical Intervention

Procedure: The patient underwent curettage and excision biopsy of the distal tibia osteoid osteoma. The patient tolerated the procedure well and experienced excellent pain relief immediately post-operatively.



[Figure 3: Intraoperative image showing bone curettage and excision.]

Postoperative Care

- Follow-up: Suture removal was performed at 12 days. The patient was symptomatically much better.
- Immobilization: The limb was immobilized with a slab for 6 weeks to aid in recovery and prevent complications.



[Figure 4: Postoperative image showing slab immobilization.]



[Figure 5: Postoperative X ray.]

III. Discussion

It is crucial for clinicians to consider osteoid osteoma as a differential diagnosis in patients presenting with persistent post-fracture pain [1]. The radiographic features, including a sclerotic margin surrounding a radiolucent nidus, are highly diagnostic [3]. When appropriately diagnosed, surgical excision or curettage provides an excellent prognosis with immediate relief of symptoms, as observed in our patient. The rarity of this lesion occurring at a site of previous trauma makes this an important contribution to the limited existing literature.

IV. Conclusion

Although osteoid osteoma is a relatively common benign bone tumor, its occurrence at a previous fracture site is extremely rare. Very few cases have been documented in the literature, making this presentation unique [1]. Proper radiological evaluation and timely surgical intervention yield excellent clinical outcomes. Documentation of such rare occurrences is vital to broaden clinical understanding and awareness.

References

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