

# Primary Subacute Osteomyelitis of Talus: An Unusual Presentation of a Limping Child

Rajib Naskar<sup>1</sup>, Balgovind S. Raja<sup>2</sup>, Dhanish V. Mehendiratta<sup>1</sup>, Pravin Jadhav<sup>1</sup>, Harshad G. Argekar<sup>1</sup>

## Abstract

A 9-year-old female presented with symptoms of limp and pain in the right ankle region along with swelling. Prominent systemic features of osteomyelitis were lacking. The delay in diagnosis from limping to diagnosis confirmation and hospital admission was 6 days. The final diagnosis was made after a detailed radiological investigation and open sampling and curettage. It was treated conservatively, and after 6 weeks of treatment, radiological improvement was noted. We conclude that, in a limping child with ankle pain, subacute osteomyelitis of talus should be kept in mind as a differential and it can be successfully treated in outpatient basis with conservative management.

**Keywords:** Osteomyelitis, Talus, Children, Ankle pain.

## Introduction

Osteomyelitis is defined as any inflammation of the bone and bone marrow, mostly due to infection. It is a complicated infection that takes diverse forms, particularly from the point of view of the most appropriate therapeutic approach to use, and for this reason, several classification schemes have been used to describe osteomyelitis. One of these focuses on the source of the infection distinguishes between infections arising from hematogenous seeding from the endosteal blood supply and infections arising as a consequence of an overlying soft tissue infection (osteomyelitis secondary to a contiguous focus of infection) and/or vascular insufficiency[1]. The other describes irrespective of the underlying pathogen, based on the time between onset of symptoms and diagnosis. Acute osteomyelitis is defined as an infection diagnosed within 2 weeks of the onset of symptoms [1, 2]. Subacute osteomyelitis is diagnosed 2 weeks after the onset of symptoms, and chronic osteomyelitis months after the onset of symptoms[2]. Staphylococcus aureus is the predominant pathogen for acute osteomyelitis in children, most of which are hematogenous in origin. Increasingly, methicillin-resistant S. aureus being isolated from patients with osteomyelitis. An unusual case of pyogenic osteomyelitis located in the left talus is reported here, along with a review

of the published literature on previously reported cases of such disease.

## Case Report

A 9-year-old otherwise healthy

girl of average build and nutrition presented to orthopedic OPD with complaints of pain in the right ankle for the past 5-6 days along with difficulty in bearing weight, limp, and swelling. There were no constitutional symptoms such as high-grade fever, nausea, vomiting, and apathy. There was no history of any significant trauma the ankle and no similar previous episode in the past. Her previous medical record was unremarkable. Results of laboratory tests were as follows: White blood cells count  $8.0 \times 10^9/l$ , with a normal differential; erythrocyte sedimentation rate 44 mm/h. Initial radiological investigation reveals osteopenia lesion in the body of the right talus which raises the suspicion of osteomyelitis. It was further evaluated using a magnetic resonance imaging, which shows abnormal hyperintense signal in T1 and hypointense signal in the right talar body in T2, STIR images, suggesting an infective pathology.

## Diagnosis

### Talus osteomyelitis

Open curettage and sampling of the right ankle joint under regional anesthesia and intraoperative samples were sent for microbiological study. Thereafter, the patient was managed medically by 3 weeks of intravenous antibiotics and 3 weeks of oral antibiotics and non-weight bearing. The antibiotic used was the third-generation cephalosporin and aminoglycoside intravenous for 3 weeks followed by the second-generation oral cephalosporin for another 3 weeks. The patient was discharged at 3 weeks and was followed by after 3 weeks. There was no fresh discharge; wound was healthy with reduction of pain and swelling. Repeat X-ray taken at 3 weeks shows resolution of the lesion with moderate osteopenia.

<sup>1</sup>Department of Orthopaedics, LTMC & Sion Hospital, Sion, Mumbai, Maharashtra, India,  
<sup>2</sup>Department of Orthopaedics, K Bhabha Municipal Hospital, Bandra, Mumbai, Maharashtra, India.

### Address of Correspondence

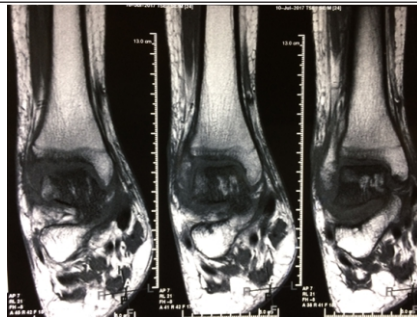
Dr. Rajib Naskar,  
Suite no.115, College building, Sion hospital, Dr. Ambedkar Road Mumbai 400022  
Email: dr.rajbaskar@gmail.com

© 2017 by International Journal of Paediatric Orthopaedics | Available on www.ijpoonline.com

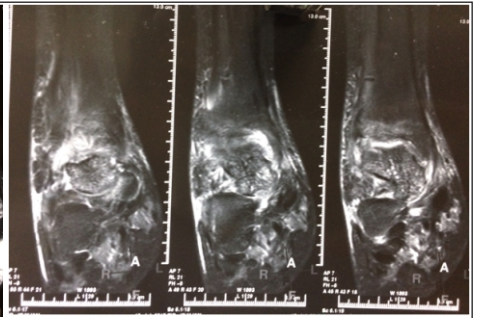
(<http://creativecommons.org/licenses/by-nc/3.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.



**Figure 1:** (a and b) Initial plain radiograph showing osteopenia lesion in the talus.



**Figure 2:** T1 weighted image showing abnormal hyperintense signal in the talus.



**Figure 3:** T2 weighted coronal image showing soft tissue edema.



**Figure 4:** X-ray at 3-week follow-up showing resolution of the lesion with osteopenia.



**Figure 5:** X-ray at 3-week follow-up showing resolution of the lesion with osteopenia.

### Conclusions

Osteomyelitis of the talus bone is a rare presentation in children. High level of suspicion should be there to diagnose such cases, especially in young children, who cannot describe their symptoms properly. Even constitutional symptoms of osteomyelitis are often absent in such cases. Early diagnosis and proper treatment can prevent any further complications.

### References

1. Lew DP, Waldvogel FA. Osteomyelitis. *Lancet* 2004;364(9431):369-379.
2. Krogstad P. Osteomyelitis. In: Feigin RD, Cherry JD, Demmler-Harrison GD,

Kaplan SL, editors. *Textbook of Pediatric Infectious Diseases*. 6th ed. Philadelphia, PA, USA: Saunders Elsevier; 2009. p. 725-742

Conflict of Interest: NIL  
Source of Support: NIL

### How to Cite this Article

Naskar R, Raja B S, Mehendiratta D V, Jadhav P, Argekar H G. Primary Subacute Osteomyelitis of Talus: An Unusual Presentation of a Limping Child. *International Journal of Paediatric Orthopaedics* Jan-June 2017;3(1):24-25.