

## Talus Injury Following Intramedullary Nailing of Tibia: A Rare Case Report

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### INTRODUCTION:

Intra-medullary nailing (ILN) is the preferred choice for a minimally invasive procedure in closed tibia diaphyseal fractures. We report a case with unusual persistent ankle pain post tibial ILN fixation.

### REPORT:

A healthy 22y.o female had a motor vehicle accident (MVA) and was diagnosed to have a closed fragmentary wedge fracture of the midshaft tibia and fibula with no other significant injuries (AO42-B3). An antegrade fashion ILN fixation was done within 1-week post-trauma. Postoperatively the patient was then referred to our center. At 4 weeks of assessment, the patient had excessive ankle pain and swelling with limited ankle range of motion. On examination, there was tenderness over the anterior ankle and no significant ligamentous injuries were elicited. X-rays of the tibia/fibula and ankle revealed no abnormalities. A computerized tomogram (CT) scan showed a well-demarcated osteochondral lesion at the talar dome mimicking the shape of the nail or reamer (Figure 1).



Figure 1: 3D-image of ankle showing talar dome osteochondral lesion

A below-knee cast was done for further 3 weeks to allow talar osteochondral lesion healing. Cast was removed after a total of 6 weeks post-ILN fixation and was immediately started on physiotherapy for a range of motion and weight-bearing ambulation as tolerated. At 12 weeks post-operation patient was only able to partially weight bear with persistent ankle pain.

### CONCLUSION:

We propose the following policy recommendations:

1. ILN Tibia to be done by certified and experienced personnel.
2. Digital records of the guide wire, reamer, and tibial nail insertion at the tibial plafond be conducted under image guidance at every attempt and be a mandatory component to document in the operative notes.

### REFERENCES:

1. Faraj AA, Johnson VG: Penetration injury of hind foot following intramedullary nail fixation of Tibial fracture. Acta Orthop Belgica 2002, 68:178-181.
2. Thompson JH, Koutsogiannis P, Jahangir A. Tibia Fractures Overview. [Updated 2022 Aug 1]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK513267/>