

A Rare Case of Catastrophic Heterotopic Ossification Of The Ankle Joint Following Tibial Plafond Fracture

¹M Hafizuddin AS

¹Orthopedic Department, Hospital Sultanah Bahiyah, Alor Setar, Kedah.

INTRODUCTION:

Heterotopic ossification (HO) is a complex pathological process that involves the production of extraskeletal bone in muscle and soft tissues. The most prevalent locations of post-traumatic HO are the elbow joint in the upper extremities and the hip joint in the lower limb. In this rare case report, an extensive island of HO formed in the ankle joint following tibial plafond fracture.

REPORT:

A 38-year-old woman with diabetes, hypertension, and iron deficiency anemia reported to the emergency room with a history of a fall with her ankle internally rotated and in flexion two weeks previous. She complains of discomfort, unresolved swelling, and inability to bear weight. X-rays reveal a tibial plafond fracture, distal fibula fracture, and syndesmotom joint disruption. She had surgery for anterolateral distal tibia and distal fibula locking plates with syndesmotom screw fixation (Figure 1).

Unfortunately, she defaulted her follow up and came back to orthopedic clinic after 2 month with complaint of limited range of motion of her ankle with tolerable pain. Xray show a massive heterotrophic ossification surrounding the ankle joint. Ankle was in fixed plantar flexion 10 degree. She was referred to physiotherapy. 6 weeks of aggressive physiotherapy show ankle in plantigrade position with range of motion improved to 5 degree dorsiflexion and up to 45 degree of plantar flexion (Figure 2).



Figure 1:



Figure 2:

CONCLUSION:

Treatment options include radiation therapy, NSAIDs, physical therapy, and surgical resection. Surgical excision is preferably once osseous maturation is complete. Incomplete excision and excision before maturity, is associated with a higher risk of HO recurrence. The lack of literature on HO in the foot and ankle warrants further inquiry into its classification, prevention, and treatment. This uncommon scenario demonstrates that even in cases with severe HO in the ankle joint, effective physiotherapy can still be a viable therapeutic option.

REFERENCES:

1. Meyers, Carolyn et al. "Heterotopic Ossification: A Comprehensive Review." JBMR plus vol. 3,4 e10172. 27 Feb. 2019, doi:10.1002/jbm4.10172