

## **FUSE OR NOT TO FUSE? A CASE REPORT ON DISTRACTION ARTHROPLASTY OF POST TRAUMATIC ANKLE OSTEOARTHRITIS WITH ILIZAROV EXTERNAL FIXATOR**

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**Introduction:** Neglected injuries over the ankle area can result in disastrous outcome for patients. The goal of treatment is to provide pain free and stable joint in which surgical options limited to reconstruction, fusion or replacement in desirable group of patients. This article reports the preservation of native joint with distraction arthroplasty of the ankle joint with Ilizarov External Fixator with good outcome at 1 year follow up.

**Discussion:** We performed a surgery on a 47 years old man, who presented earlier with an open fracture dislocation of the ankle. He was on external fixator then converted to cast. The ankle deformed upon removal of cast. Intraoperatively, patient was placed on cross ankle Ilizarov External Fixator. Percutaneous screw fixation was performed over medial malleolus. No further fixation was performed as the joint area and ankle mortise were well achieved with distraction over tibiotalar joint. Patient was allowed to weight bear in gradual manner from 6 weeks post surgery. The frame was removed at 4 months. Good functional outcome was achieved so far up to 1 year post surgery.

**Conclusion:** Distraction arthroplasty is one of the options of joint preservation surgery in order to save premature fusion. It is postulated that distraction reduces mechanical stress from the arthritic joint, reverse the sclerosis of the subchondral bone, protect the remaining cartilage, and even allow for cartilage reparation.