

Reduction of Ankle Fracture Dislocation with Anatomic Low-Profile Plates

Author: Keri R. Zickuhr, MD

INTRODUCTION

A 45-year-old female presented in the emergency department for an ankle fracture-dislocation following a fall. The attending physician reduced and splinted the affected ankle and referred the patient for additional treatment.

During the initial examination, films were taken to assess the severity of the fracture (Figures 1 & 2).

The physical examination scope was limited due to the prior reduction and splinting of the patient's ankle. Still, mild swelling and ecchymosis to her toes were observed, and the affected foot was warm and pink with brisk capillary refill.

Treatment options were discussed

with the patient, and surgical intervention to repair the posterior malleolus fracture was recommended due to the instability of the ankle in combination with the posterior dislocation. An ankle arthroscopy was also recommended to identify any secondary chondral damage from the dislocation.

After considering the presented indications and the dislocation of the posterior tibial fracture, it was determined that surgical treatment using the CoLink® Afx Posterior Tibia and Posterior Lateral Fibula Plates from the In2Bones CoLink Afx Ankle Fracture Plating System would be the best course of action (Figure 3).

The CoLink Afx Posterior Tibia Plate allows for fixation of the posterior malleolus fracture while maintaining a low-profile, thanks to anatomic plate contours (Figure 4).

PROCEDURE

The patient was placed in the supine position and an ankle arthroscopy was performed to inspect for any secondary chondral damage from the dislocation.

Maintaining the supine position, the medial malleolus fracture was then addressed using In2Bones CoLag® Screws to provide a secure reduction of the bone fragment. This may be performed with the patient prone or in a supine position, per surgeon preference.



Figure 1. Pre-op lateral X-ray



Figure 3. CoLink Afx Posterior Lateral Fibula Plate



Figure 2. Pre-op AP X-ray

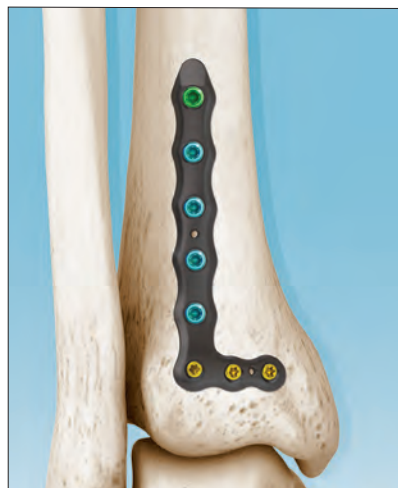
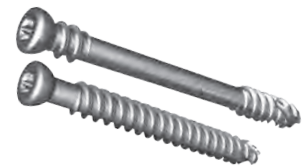


Figure 4. CoLink Afx Posterior Tibia Plate



CoLag® Screws - 2.0, 2.5, 3.0, 4.0, 5.0 & 6.7mm dia. with Fully Threaded on 4.0 and 6.7mm

The patient was shifted to a prone position for the remainder of the procedure, to enable a posterior approach between the Achilles and posterior border of the fibula. The sural nerve and lesser saphenous vein were identified and protected



Figure 5. Intra-op fixation