

OPEN REDUCTION TO POSTERIOR MALLEOLUS FRACTURE: AN ESSENTIAL IN ANKLE FRACTURES

Leow VC, Ibrahim MI

Orthopaedic Department, Hospital Raja Permaisuri Bainun, Ipoh, Perak

INTRODUCTION:

Posterior malleolus fracture is not uncommon, it can be presented as part of pilon fracture or as a Volkmann fragment in trimalleolar fracture. This posterior fragment can be big and become unstable that a posterior approach is inevitable to provide buttress compression and good anatomical reduction for the fracture. There are 3 described posterior approaches – posterolateral, posteromedial and modified posteromedial.

METHODS:

We performed posterior approach towards posterior malleolus using posterolateral and modified posteromedial approach to gain access into the posterior malleolus fragment. All patients are placed in prone position, posterolateral approach allows reduction of posterolateral fragment and distal fibular with a single incision, it is useful especially in fibular fracture with syndesmosis disruption and large Volkmann fragment. While modified posteromedial allows good exposure to posterior malleolus in pilon fracture.

RESULTS:

All cases achieved good reduction in post-operative x-ray. There were no neurovascular injuries during the surgery. All wounds healed well without wound complications.



Figure 1: posterior malleolus fracture with ankle subluxation



Figure 2: posterolateral approach, exposed fracture fragment.
Figure 3: posterior placed plate



DISCUSSIONS:

Sural nerve needs to be protected especially in posterolateral skin incision. Avoid placing hardware at the posterior surface of the distal fibula to avoid peroneal tendon irritation. Fixing the medial malleolus in the prone position can be tricky but doable or else place the patient in supine.

CONCLUSION:

Posterior approach to posterior malleolus is safe and provides stable, compression fixation.

REFERENCES:

1. Assal M, Ray A, Stern R. How to Get to the Distal Posterior Tibial Malleolus? A Cadaveric Anatomic Study Defining the Access Corridors Through 3 Different Approaches. *Journal of Orthopaedic Trauma* · March 2017.