

Multiple Orthopaedic Trauma

Click on images to view radiographs and clinical pictures.

Introduction

A 35 year old man was riding his motorcycle at 60km/hr when he was T-boned from the left by a car travelling at the same speed. He was brought to your trauma room and the ATLS protocol was initiated. His airway is patent, he is conscious and hemodynamically stable. There are obvious extremity deformities and radiographs are taken in the trauma room. His C-spine is cleared both clinically and radiographically. The secondary survey is performed and he has only orthopaedic injuries:

Right Ankle - No Dorsalis Pedis pulse, 6cm soft tissue wound with visible deformity

Left Humerus - Neurovascularly intact but tender over olecranon

Left Distal Radius - Tender and deformed

Right Distal Radius - Tender and deformed

Management

ATLS protocol was followed and the airway

was patent. 100% Oxygen was given via non-rebreather mask, 2 large bore IVs were instituted with Ringer's Lactate. The C-spine was immobilized in a semirigid cervical collar and then later cleared clinically and radiographically. The patient was hemodynamically stable and there were no neurological injuries thanks to the helmet which was removed by the paramedics. Our management was as follows:

Right Ankle - Closed reduction in the trauma room was performed and the Dorsalis Pedis pulse returned. Tetanus Toxoid 0.5cc IM and Cefazolin IV 1g was given.

The patient was taken to the operating room for Irrigation and Debridement plus Open Reduction and Internal Fixation of all fractures.

I&D plus ORIF of the Right Ankle using two medial screws and tension banding of the lateral malleolus:

ORIF of the olecranon:

An external fixator was applied to the left distal radius, and a plate and screws were used to fix the left ulna. Stability through pro/supination was checked under the image intensifier.

The left distal radius still did not have absolute stability so two mini fragment lag screws were used in addition to the ulnar plate and radial external fixator:

The right distal radius fracture was treated with an external fixator: