

Peer Review File

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Reviewer A

The abstract should be replaced with the following:

Background: Open dislocation of the ankle not accompanied by rupture of the tibiofibular syndesmosis ligaments is an extremely rare injury. They represent a challenge for surgeon, either in acute or in the late outcomes. Since this is an uncommon injury, there is no standard treatment protocol reported in the literature, which indeed showed that many different treatments have been applied. We report an unusual case of an open lateral dislocation of the ankle joint without tearing of the tibiofibular syndesmosis ligaments accompanied by a complex fracture of the mid-foot.

Case presentation: A 16-year-old man was admitted to our institution following a motor vehicle accident. The physical examination showed ten centimeters of exposed dislocation of the ankle joint, classified as a Gustilo-Anderson 2A. The radiographic examination reported a fibula fracture, classified as a Weber B one, a displaced distal diaphyseal fracture with dislocation of the base of the fifth metatarsal bone, and fracture of the base of the fourth metatarsal bone. The patient was taken to surgery 150 minutes after injury and a manual reduction of the ankle dislocation under arthroscopic control was performed. The fibula fracture was treated with a cannulated screw and the ankle joint was stabilized with the Hoffman II external bridge fixator. The reduction of the dislocation of the fifth metatarsal was treated with two 1.8 mm K wires, which were fixed on the cuboid bone, and a definitive percutaneous synthesis with intramedullary K wire of the fracture of the fifth metatarsal bone was gained. A follow-up clinical and radiological examination six months after trauma showed a fully resumed daily living and sports activities.

Conclusions: An early total care treatment should be considered a good option that allows for mechanical stability and good mobility of the ankle joint.

The order of the figures should be revised by re-proposing that of the manuscript with the preoperative, intraoperative and finally the postoperative figures.

OK

Reviewer B

This study reported a case of an open lateral dislocation of the ankle joint without tearing of the tibiofibular syndesmosis ligaments accompanied by a complex fracture of the mid-foot, following a motor vehicle accident. This trauma was urgently treated through joint reduction and stabilization with an external fixator, a cannulated screw at fibula level, and K-wires for the stabilization of the fractures

of the fifth and fourth metatarsal bones.

In general, this is a compounded type of case. It consisted of open ankle dislocation, infrasyndesmoti fibula injury possible with posteromedial fracture fragments. The treatments were well, and the outcomes were excellent. However, there are a few concerns that need to be clarified:

1. What was the fragment in distal the tibial end in Figure 3? Where is it from? It seemed there was no fixation on it as well.
2. Was there any rupture of the medial (deltoid) ligament of the ankle joint? Did you check it?

There is not fracture about the fragment distal to the tibial, so nothing fixation; then I have just wrote the ankle stability after stress test in the manuscript.