

ACUTE DISTAL TIBIOFIBULAR SYNDESMOTIC INJURIES IN ANKLE FRACTURES

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A stable tibiofibular syndesmosis articulation maintains the tibiofibular alignment and is necessary for normal ankle function. An ideal syndesmotic reduction and stabilization strategy should replicate the orientation and stabilizing forces of the syndesmotic ligaments. The aim of this study is to evaluate the outcomes of operative treatment for tibiofibular syndesmosis rupture associated with malleolar fractures.

This study presents patients with tibiofibular syndesmosis disruption treated at the Orthopedic Clinic of the Clinical Center in Niš from January 2017 to January 2019. The subjects included individuals with malleolar fractures accompanied by tibiofibular syndesmosis injuries. Treatment involved malleolar fixation and transfixation of the tibiofibular syndesmosis. Radiographic, clinical, operative and statistical methods were used to evaluate the study objectives.

In the group of 46 subjects with tibiofibular syndesmosis rupture, there were 28 (61%) men and 18 (39%) women, with age ranging from 18 to 79 years (mean age = 43.6 ± 9.6 years). The predominant cause of injury was slipping and falling in 32 patients (70%), followed by falls from a height in 9 patients (19%), and traffic accidents in 5 patients (11%). According to the Lauge-Hansen classification, 27 (59%) patients sustained supination-external rotation type injuries. Based on the final functional treatment outcome assessed using the Olerud-Molander scoring system, the average ankle score was 87 points (range 55 to 100). Among the patients, 34 (74%) achieved excellent or good results: 24 (52%) had excellent outcomes (score from 90 to 100 points), and 10 (22%) had good outcomes (80 to 89 points). Satisfactory outcomes were observed in 7 (15%) patients, while poor outcomes were recorded in 5 patients (11%).

Our results indicate that stable and timely surgical reconstruction and fixation of the malleolus and tibiofibular syndesmosis enable functional restoration and recovery of the ankle joint with a low rate of complications.

Acta Medica Medianae 2025;64(4):110–117.

Key words: syndesmosis injury, ankle fracture, joint repair, syndesmosis fixation

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