

Letter to the Editor

Posterior Malleolar Stabilization of Syndesmotic Injuries is Equivalent to Screw Fixation

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To the Editor:

We read with great interest the paper by Miller et al. [3]. The authors concluded syndesmotic fixation through the posterior malleolus results in outcomes similar to those with syndesmotic screw fixation. This study describes what may be an alternative method for syndesmotic stabilization and avoid the disadvantage of the traditional transsyndesmotic fixation. However, there are some concerns regarding this study.

First, the patients chosen reflected a selective population. Most fractures (25 of 31) included in the study were attributable to supination-external rotation (SER) injuries. Although fractures from SER injuries at the level of the joint (Weber B fractures) occasionally have syndesmotic diastasis on stress testing, syndesmotic stabilization is used more frequently for fractures from pronation-external rotation (PER) (Weber C) injuries [4, 5]. The fractures occurring within 5 cm of the joint line, most of which usually are considered unable to produce syndesmotic instability, may not benefit from syndesmotic fixation [1].

Second, could posterior malleolar fixation provide sufficient syndesmotic stabilization for injuries with a different level of fibular fractures? For injuries with greater instability, we believe more fixation is necessary. For example,

with a SER injury that shows just slight syndesmosis diastasis, one three-cortex 3.5-mm screw is sufficient. For a Maisonneuve's fracture, in contrast, a heavier screw and probably two screws engaging four cortices are preferable [2].

Third, is combined posterior malleolar and transsyndesmotic fixation necessary for patients with fracture-dislocations (Group C)? When the posterior malleolar fragments are less than 25% of the joint surface, the only purpose of posterior malleolar fixation is to stabilize the syndesmosis through the posterior inferior tibiofibular ligament, which is the same as with transsyndesmotic fixation. Considering no other structures of the ankle were stabilized further, why did the authors perform combined fixation? Was it because the syndesmotic instability was still present after either of the procedures?

References

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(Re: Miller AN, Carroll EA, Parker RJ, Helfet DL, Lorich DG. Posterior malleolar stabilization of syndesmotic injuries is equivalent to screw fixation. *Clin Orthop Relat Res*. 2010;468:1129–1135.)

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