

ARTICLE SYNOPSIS

FIBULINK™ Syndesmosis Repair System

Syndesmotic Injuries Treated with an Aperture Fixation Device

Desai S. *Techniques in Foot & Ankle Surgery*. 2020;19(2):96-103.

Desai (2020) presented a case series of 14 patients who received a FIBULINK™ Implant for syndesmotic injury (mean age 48 [range 26-77]; 8 males, 6 females).

Key Takeaways:

1. The aperture fixation (joint line fixation) device was used to treat 9 supination external rotation, 2 pronation external rotation, 1 Maisonneuve, and 2 isolated syndesmotic injuries.
2. American Orthopedic Foot and Ankle Society (AOFAS) scores at follow-up (average 9.5 months) were favorable (mean 94), varying slightly by type of injury, gender, and age (range 87-100).
3. There were no reported complications.

Patient Cohorts

Supination external rotation (SER) injuries (n=9) – open reduction internal fixation (ORIF) of the fibula and medial malleolus fracture if present; fluoroscopy, Cotton test and external rotation stress test confirmed syndesmosis disruption; syndesmosis stabilized with 1 aperture fixation device

Pronation external rotation (PER) injuries (n=2) – ORIF of fibula, repair of deltoid if found to be disrupted, followed by ORIF of syndesmosis with 1 aperture fixation device

Isolated syndesmosis (n=2) and Maisonneuve fractures (n=1) – ORIF of syndesmosis with a 3-hole buttress plate and 2 aperture fixation devices

Postoperative Treatment

Discharge – short-leg splint and non-weight-bearing

1 week (if swelling amenable) – pneumatic boot and continued non-weight-bearing

3 weeks – sutures removed and range of motion (ROM) physical therapy, avoiding aggressive external rotation of the foot

6 weeks – weightbearing as tolerated in a walker boot and swimming/bicycle

2-3 months, bony union confirmed on x-ray – lace-up ankle brace and full rehabilitation including ROM, strengthening, and proprioceptive exercises

4-6 months, full function of foot/ankle demonstrated – athletic activity without restriction; lace-up brace for additional 6 months during sports

Postoperative Outcomes

Mean duration of follow-up was 9.5 months.

- Mean American Orthopedic Foot and Ankle Society (AOFAS) score was 94
 - PER patients had slightly higher AOFAS scores vs SER patients (96 vs 93)
 - AOFAS scores were lower in the female group, patients older than 50, and patients with syndesmotic injuries accompanied by medial malleolus fractures or ankle dislocations
 - Isolated syndesmosis and Maisonneuve injuries had the highest AOFAS scores
- Mean Visual Analog Scale (VAS) score at final follow-up was 1.1
- There were no instances of loss of reduction, hardware removal, repeat surgeries, wound issues, or other complications

Conclusion

A case series of 14 patients was presented with no complications at a mean follow-up of 9.5 months. Although the short-term data are promising, longer-term data are needed. A prospective randomized trial comparing the FIBULINK System to suture button constructs would be beneficial in the future.

Figure 1



AP PER Injury



9-month follow-up

Figure 2



AP SER Injury



12-month follow-up

For complete publication and further details, please visit the publisher's site: <https://journals.lww.com/techfootankle/pages/default.aspx>.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Images fully extracted from the original article.

Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.

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