Surgical Summary

Clinical Presentation:
• 54-year-old female with 2 previous peroneal tendon repairs presented with sharp lateral pain over the peroneal tendon.
• Exam revealed increased pain with resisted inversion and eversion, local swelling, 4/5 strength on testing, no restriction in range of motion, and no subluxation of tendons.
• MRI revealed significant scarring and a recurrent peroneus brevis tear (Figure 1).

Intraoperative Findings:
• Exploration revealed a large retrofibular tear of the brevis tendon, complex delaminating intrasubstance tear of the peroneal tendons with splitting of the brevis, and tenosynovitis of both the peroneus longus and brevis.
• The tear extended proximal to the fibula, and distal to the peroneal tubercle.

Surgeon Perspective:

“DermaPure® allows reconstruction of gliding tendons by incorporating angiogenic potential, while augmenting strength and limiting scarring.”
Utilization of a Next Generation Decellularized Dermal Allograft to Augment a Recurrent Peroneus Brevis Tear

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Surgical Procedure:

- A lateral approach was taken utilizing her previous incision. The superior peroneal retinaculum was incised, and both tendons visualized.
- Debridement and repair of the large retrofibular tear of the brevis, and debridement of the longus.
- DermaPure® decellularized dermal allograft was applied in a tubularized fashion around the brevis, (due to the history of multiple procedures, extent of scarring, and integrity of the tendon), to augment and stimulate healing, while minimizing scarring to improve gliding kinematics (Figure 2).
- The retrofibular groove was palpated and noted to be appropriately deep, and the superior peroneal retinaculum was imbricated with absorbable suture.

Post-Operative Note:

- Patient was discharged home, non-weight bearing and immobilized for 6 weeks.
- At 6 weeks, patient was placed in a boot and physical therapy began.
- Patient is being followed routinely to assess clinical outcomes.