

alafair  
BIOSCIENCES



**VersaWrap**<sup>®</sup>

**VERSAWRAP<sup>®</sup>**  
**APPLICATIONS FOR FOOT**  
**& ANKLE SURGERY**

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**SURGERY**  
**CHIEF, FOOT & ANKLE SURGERY**

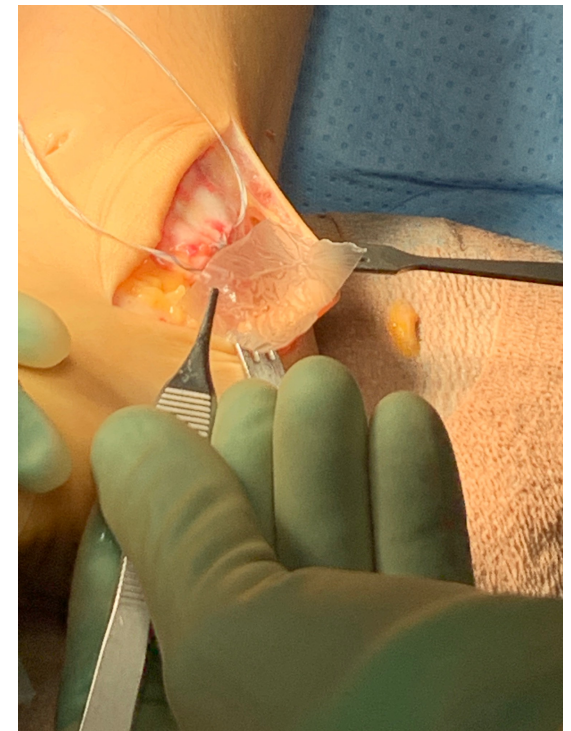
**UNIVERSITY OF CALIFORNIA, DAVIS**

MKT-04070 Rev 01



## SUMMARY FOR FOOT & ANKLE

- VersaWrap is a versatile hydrogel implant for Foot & Ankle surgery.
- VersaWrap has multiple uses for soft tissue and neurovascular reconstruction.
- Surgical outcomes with the use of VersaWrap are improved compared to other biologic solutions.
- Clinical outcome trials for applications in Foot & Ankle surgery are currently underway.





## ADHESIONS AND SCARRING AFTER FOOT & ANKLE SURGERY



Due to the lack of substantial subcutaneous tissue and thick musculature covering the ankle and foot, many tendon and soft tissue procedures in this anatomical region develop adhesions and scarring post-operatively.



Scarring and adhesions are more common after repair for traumatic injuries such as Achilles rupture and peroneal tendon dislocation.



Other maladies, such as tarsal tunnel syndrome release and tumor resection can also lead to post-operative pain and prolonged recovery.



## RATIONALE FOR VERSAWRAP USE IN THE FOOT & ANKLE

Collagen membranes, xenografts, platelet rich plasma and amniotic based products are often utilized during surgery, but with inconsistent clinical results

VersaWrap is a polysaccharide-based gelatinous layer that provides a gliding surface for healing tendons. VersaWrap minimizes post-operative tendon tethering

Pre-clinical testing demonstrates that the Alafair hyaluronic acid blend technology statistically decreased the incidence of adhesions when compared to a commercially available device<sup>1</sup>

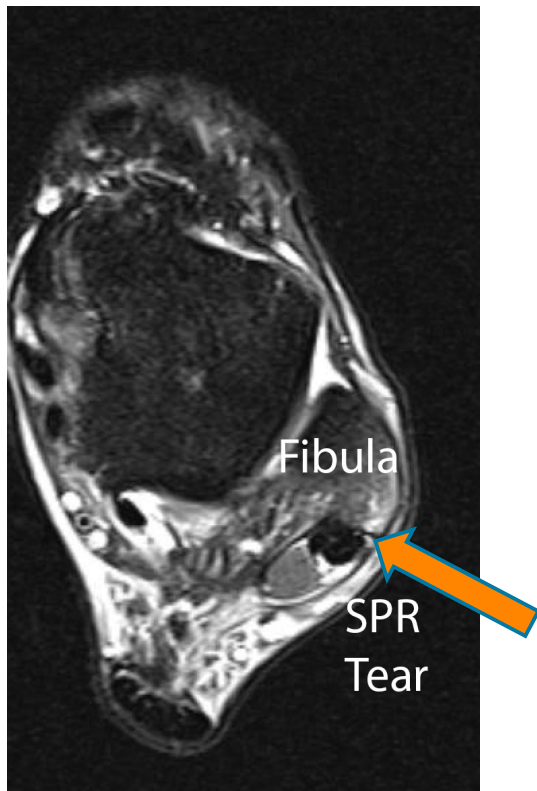
<sup>1</sup>S.M. Mayes, J. Davis, and J. Scott et al. / *Acta Biomaterialia* 106 (2020) 92–101





## CASE EXAMPLE #1 PERONEAL TENDON DISLOCATION RECONSTRUCTION

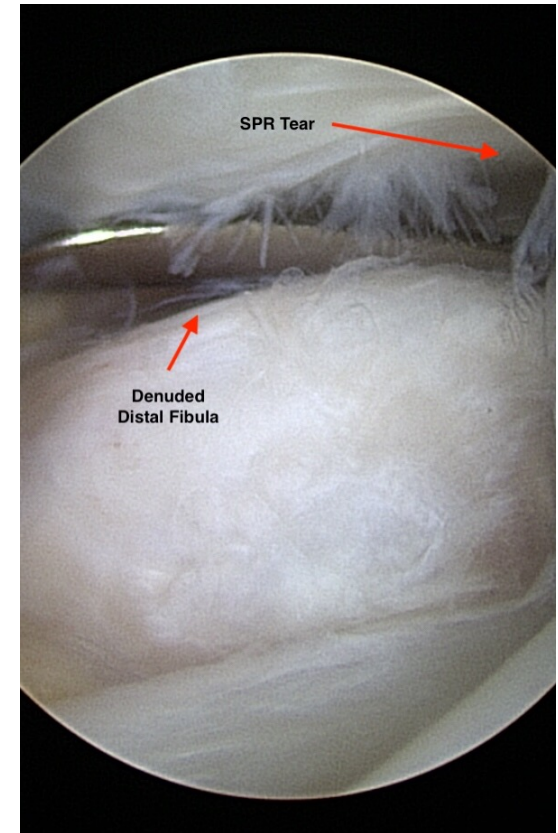
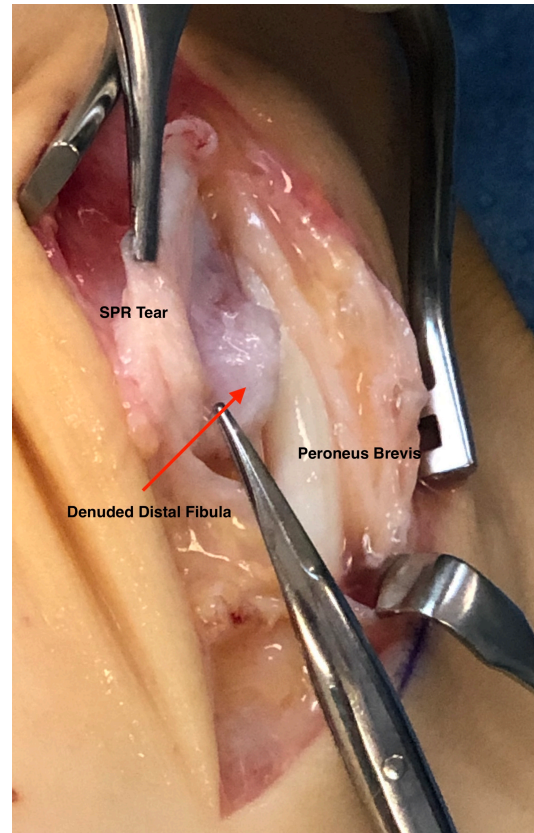
- The patient is a 44-year-old active female who had a twisting injury while skiing 3 months prior to surgery. She experienced lateral ankle pain and snapping of the peroneal tendons during activity.
- The axial T2 MRI demonstrates a superior peroneal retinacular tear (SPR) with a split tear of the peroneus brevis.

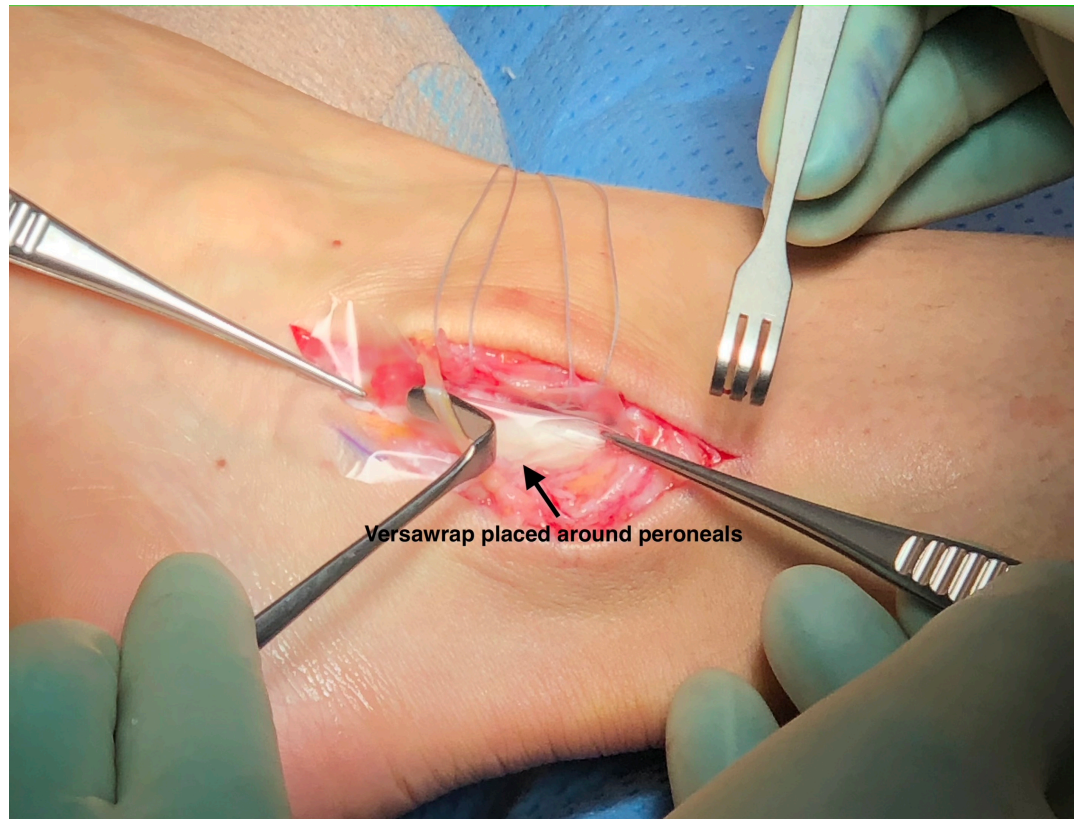




## CASE EXAMPLE #1 PERONEAL TENDON DISLOCATION RECONSTRUCTION

- Peroneal tendoscopy was performed followed by an open repair which revealed a denuded distal fibula.





## CASE EXAMPLE #1 PERONEAL TENDON DISLOCATION RECONSTRUCTION

- VersaWrap was placed around the peroneal tendons prior to the final repair of the SPR



## CASE EXAMPLE #1 PERONEAL TENDON DISLOCATION RECONSTRUCTION



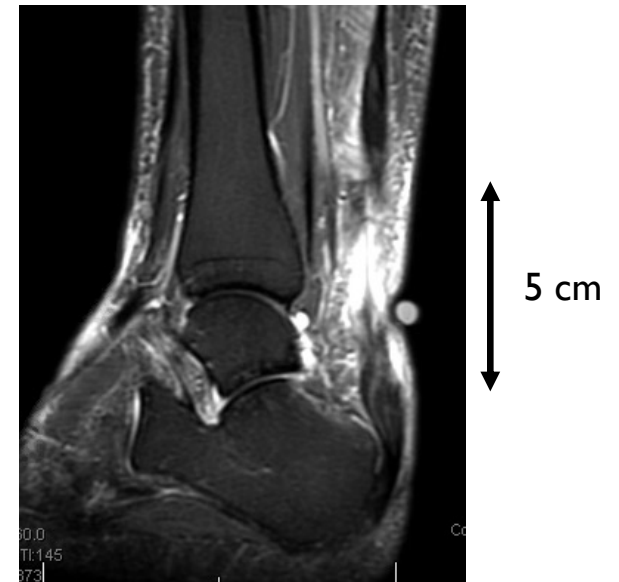
- The final repair allowed for gliding of the tendons with a restoration of a normal SPR.
- At 3 months post-op the patient was pain free and returned to sports activity with full excursion of her tendon unit.





## CASE EXAMPLE #2 COMPLEX ACHILLES TENDON RECONSTRUCTION

- The patient is a 60-year-old active female who ruptured her Achilles while hiking.
- The patient was told she had an ankle sprain and presented with pain and weakness 4 months after the injury.
- Sagittal T2 MRI demonstrates a retracted tear with a 5 cm gap.





## CASE EXAMPLE #2 COMPLEX ACHILLES TENDON RECONSTRUCTION

- The large gap was repaired with a VY lengthening, plantaris autograft and dermal allograft wrap.
- The amount of dissection put the patient at high risk for post operative scarring and adherence of the Achilles to the posterior skin.





## CASE EXAMPLE #2 COMPLEX ACHILLES TENDON RECONSTRUCTION

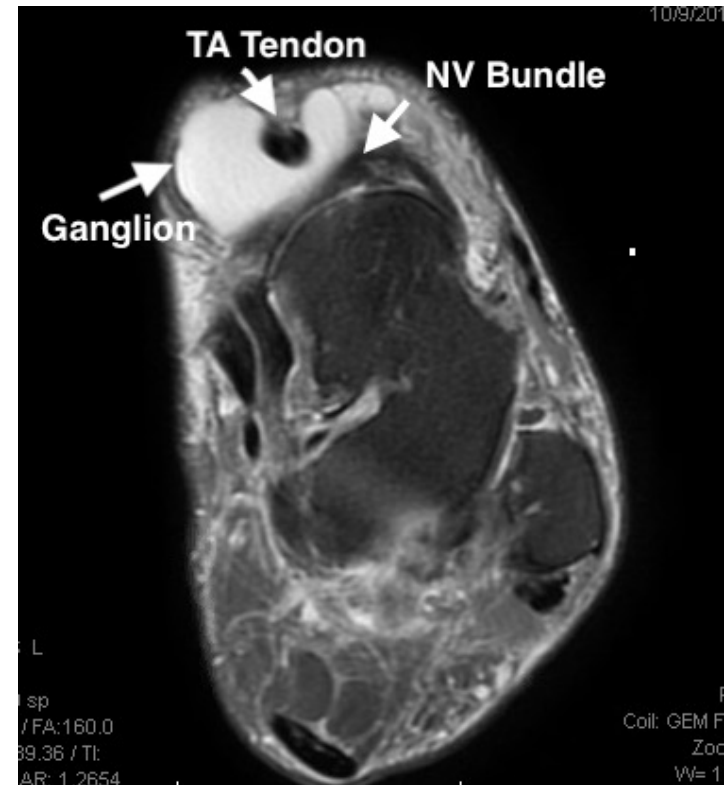
- VersaWrap was placed over the posterior repair site prior to closure.
- After 4 months the patient was pain free, able to do daily activities without difficulty, and a plan to return to hiking by month 6.



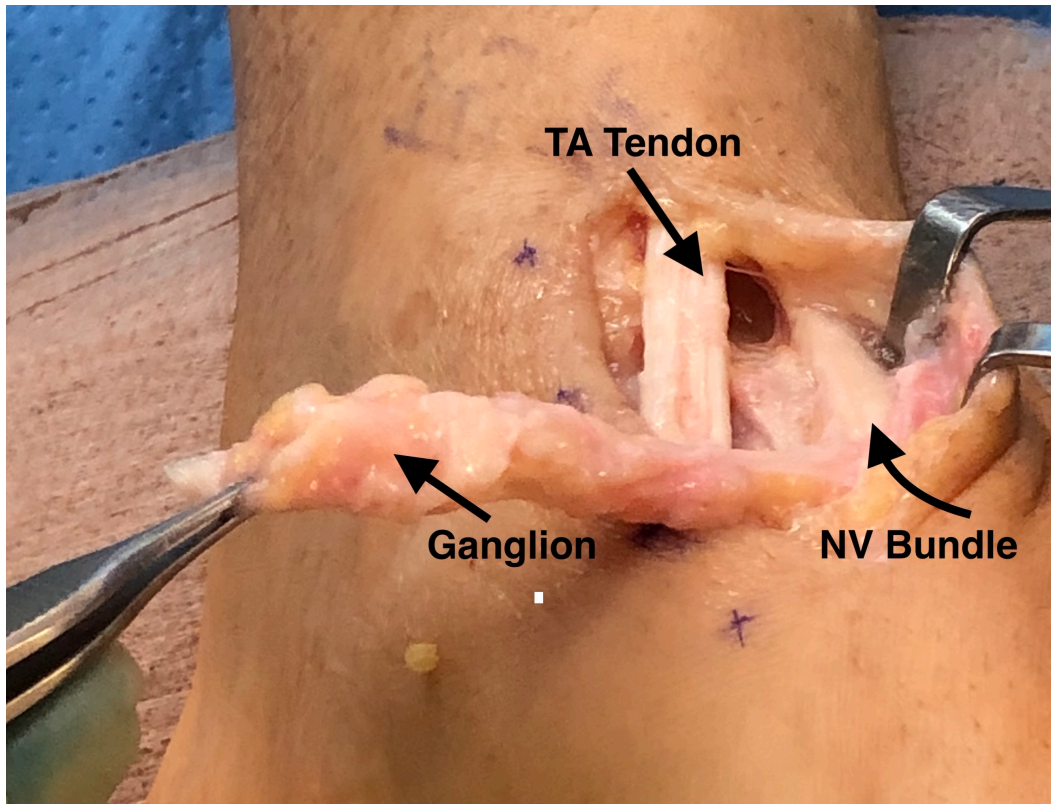


## CASE EXAMPLE #3 ANTERIOR ANKLE GANGLION CYST EXCISION

- The patient is a 67-year-old male with 2 years of anterior ankle pain and swelling. He developed tibialis anterior synovitis and compression of his anterior neurovascular bundle (NV) at the level of the ankle causing pain and numbness.
- Axial T2 MRI demonstrate a complex cyst encapsulating the tendon (TA) with abutment to the anterior tibial artery and nerve.







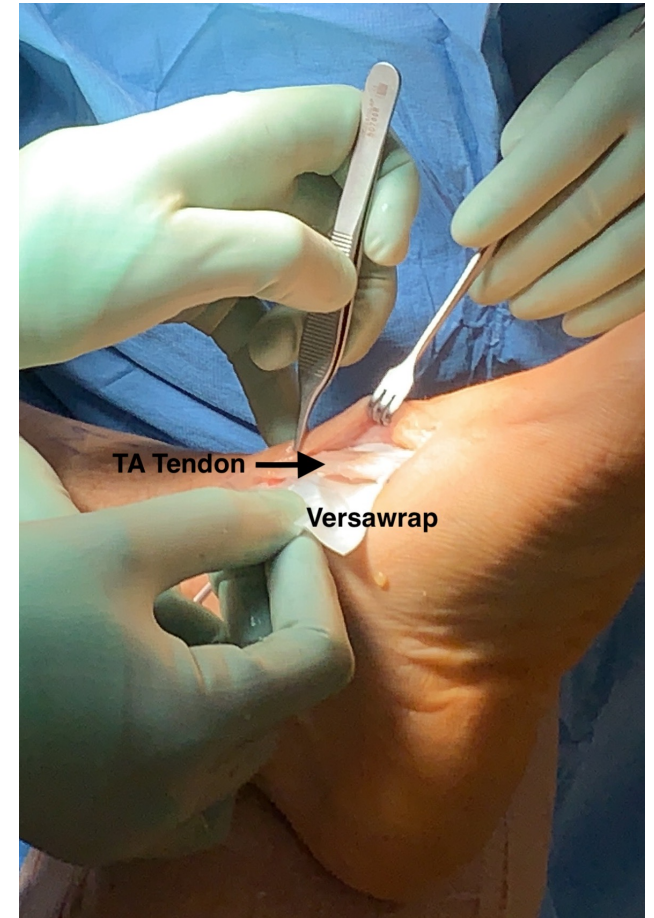
### CASE EXAMPLE #3 ANTERIOR ANKLE GANGLION CYST EXCISION

- Operative findings included a multi-loculated cyst with invasion of the tendon sheath and nerve.



## CASE EXAMPLE #3 ANTERIOR ANKLE GANGLION CYST EXCISION

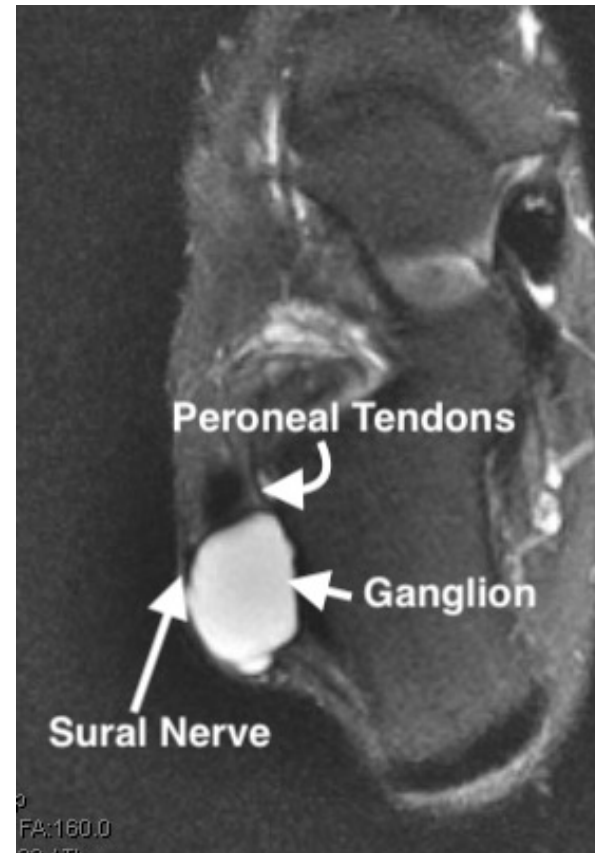
- VersaWrap was placed around the tendon and next to the neurovascular bundle.
- At 6 months the patient had full tendon function and no nerve symptoms with all numbness resolved.





## CASE EXAMPLE #4 LATERAL ANKLE GANGLION CYST EXCISION

- The patient is a 29-year-old male with no history of trauma and 6 months of lateral ankle pain, swelling and lateral foot numbness.
- Coronal T2 MRI demonstrates a large ganglion in the lateral foot encapsulating the peroneal tendons and compressing the sural nerve.

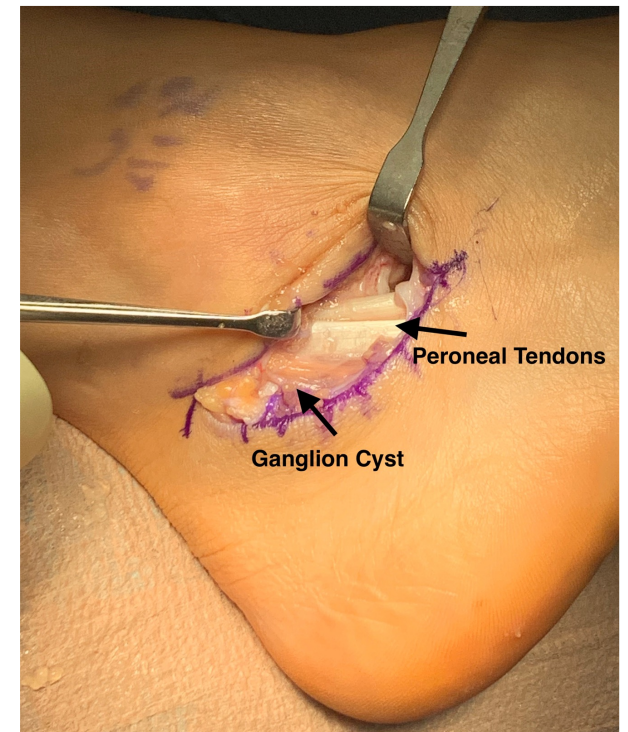
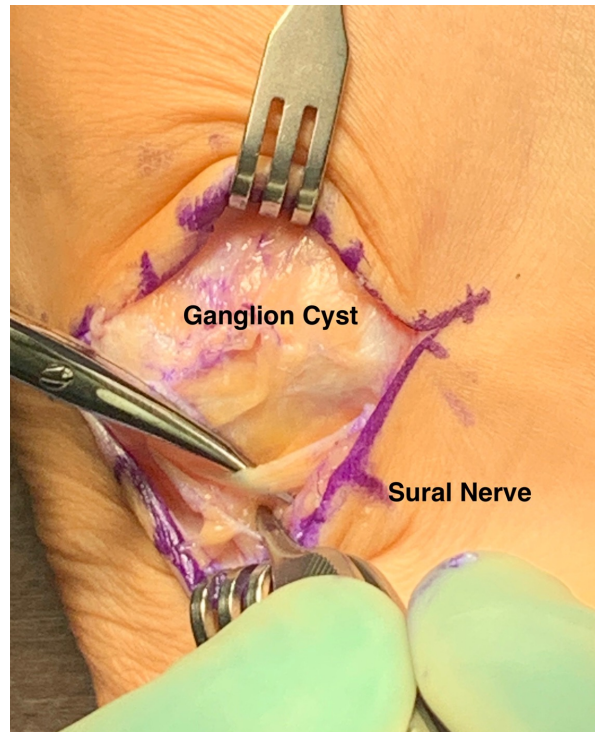






## CASE EXAMPLE #4 LATERAL ANKLE GANGLION CYST EXCISION

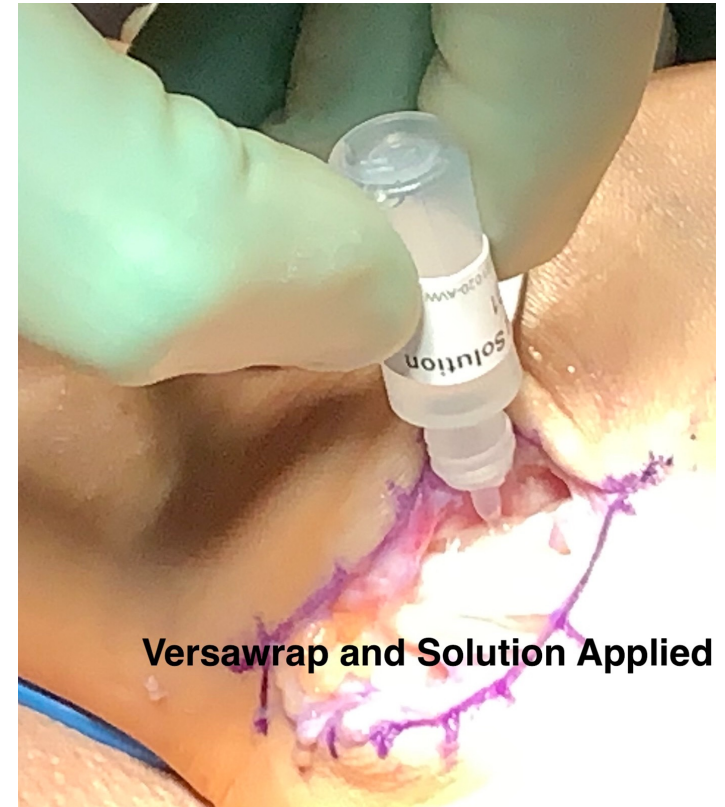
- Intraoperative findings included compression of the sural nerve and displacement of the peroneal tendons.





## CASE EXAMPLE #4 LATERAL ANKLE GANGLION CYST EXCISION

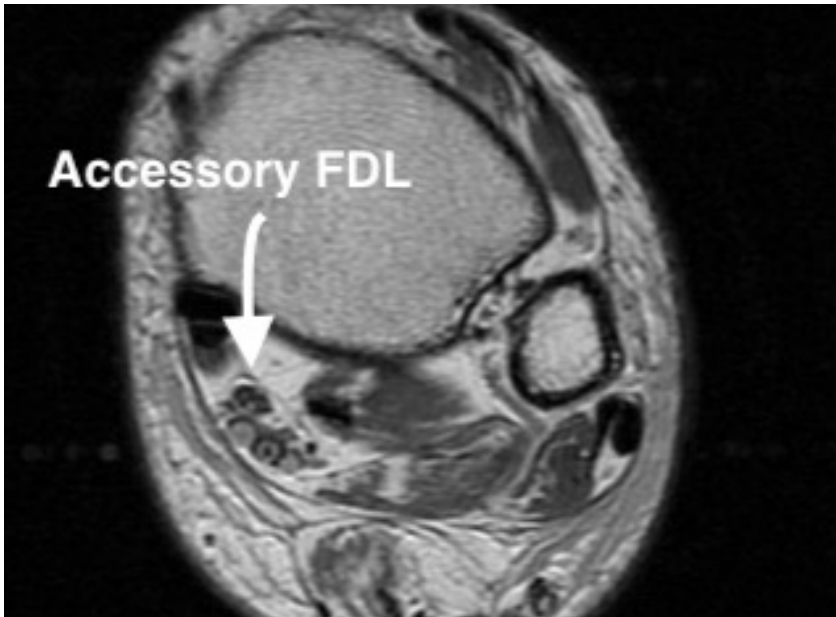
- VersaWrap was placed between the peroneal tendons and the sural nerve.
- 6 weeks post-op the patient was pain free with normal tendon excursion and complete recovery of sural nerve function.



**Versawrap and Solution Applied**



## CASE EXAMPLE #5 TARSAL TUNNEL RELEASE WITH POSTERIOR TIBIAL NERVE DECOMPRESSION

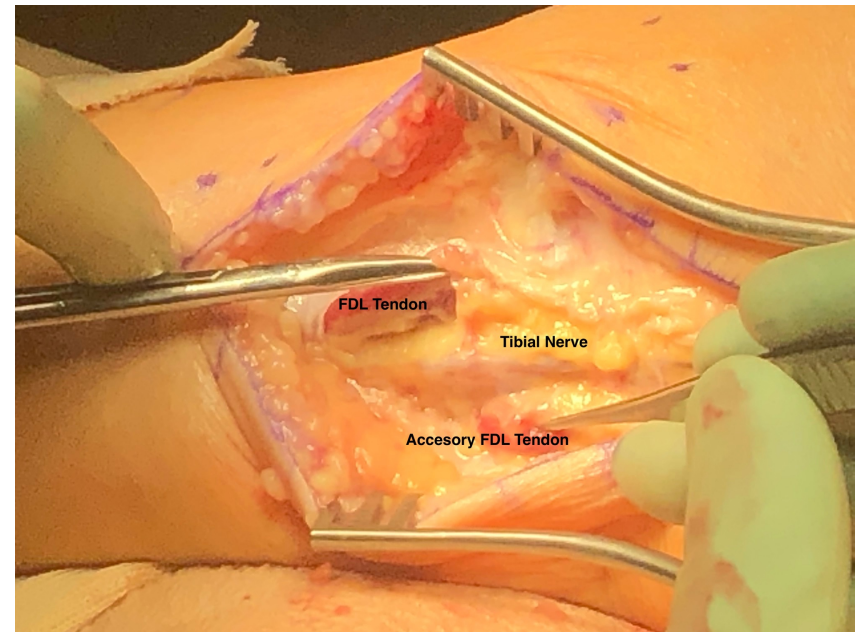


- The patient is a 72-year-old farmer who is an avid skier with 5 years of medial ankle pain and plantar foot numbness.
- An axial T2 MRI demonstrates an accessory flexor digitorum longus tendon in the tarsal tunnel compressing the neurovascular bundle.



## CASE EXAMPLE #5 TARSAL TUNNEL RELEASE WITH POSTERIOR TIBIAL NERVE DECOMPRESSION

- Tarsal tunnel release is performed with a nerve decompression and the accessory muscle is removed.

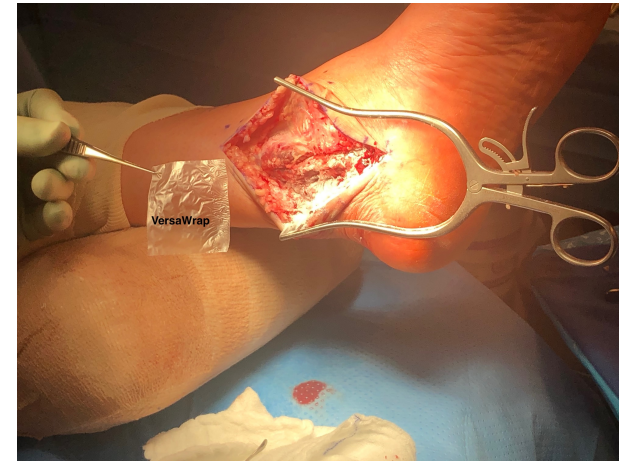






## CASE EXAMPLE #5 TARSAL TUNNEL RELEASE WITH POSTERIOR TIBIAL NERVE DECOMPRESSION

- VersaWrap is placed over the tarsal tunnel prior to closure to prevent scarring and nerve adhesions.
- After 3 months the patient was pain free with no medial ankle tenderness and a negative Tinel's exam.

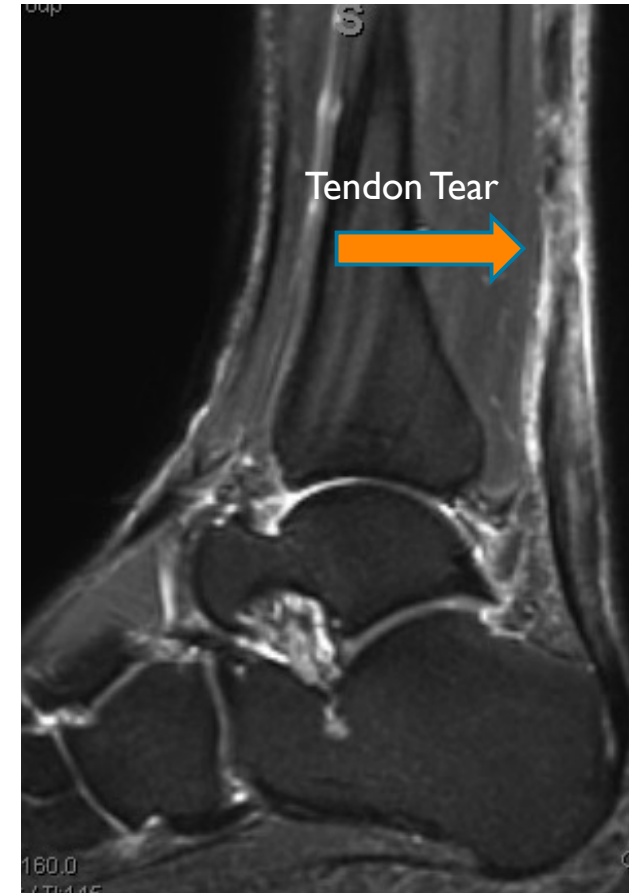






## CASE EXAMPLE #6 ACUTE ACHILLES TENDON REPAIR

- The patient is a 29-year-old martial artist who suffered an acute Achilles rupture while kick boxing
- A sagittal T2 MRI demonstrates an acute tear with tendon retraction.
- Post-operative scarring of the tendon to the skin would potentially be career ending for this patient.





## CASE EXAMPLE #6 ACUTE ACHILLES TENDON REPAIR

- VersaWrap is placed over the posterior aspect of the tendon to prevent adherence and accelerate healing.





## CASE EXAMPLE #6 ACUTE ACHILLES TENDON REPAIR



Full tendon excursion



No adherence of skin to tendon

- After 3 months, the patient is pain free and back to training
- No adherence of the skin to the tendon
- Full tendon excursion



## ERIC GIZA, MD

PROFESSOR OF ORTHOPAEDIC SURGERY  
CHIEF, FOOT & ANKLE SURGERY  
UNIVERSITY OF CALIFORNIA, DAVIS

- Dr. Eric Giza, MD, is an Associate Professor and Chief of the Foot and Ankle Service at UC Davis Department of Orthopaedics in Sacramento, CA.
- Dr. Giza did his undergraduate work at Haverford College in Philadelphia and received his MD degree from Temple University, also in Philadelphia. He completed his residency at Harvard University in Boston. Following residency, he completed a Foot and Ankle Surgical Fellowship at the Foot and Ankle Clinic in Sydney, Australia and a Sports Medicine Fellowship at the Santa Monica Orthopaedic Group.
- Dr. Eric Giza is chief of the UC Davis orthopaedics department's foot and ankle service, where he specializes in reconstruction and minimally invasive arthroscopy of the foot and ankle complex. He also has expertise in knee and shoulder surgery.
- Dr. Giza is a former collegiate soccer player and has served as an assistant team physician for the United States Soccer Federation, which runs the U.S. women's and men's World Cup-level national teams. He has also served as a medical information consultant and research committee chair for America's highest-level professional soccer league. Dr. Giza currently serves as an official team physician for the Sacramento Republic FC professional men's soccer team.
- Dr. Giza is an active researcher in the field of cartilage transplantation, and has published book chapters and articles on numerous Orthopaedic topics.



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## ORDER INFORMATION

Catalog Number	Size / Volume	Quantity
VTP-2201	2 in x 2 in Sheet, 0.03 oz Solution (5 cm x 5 cm, 1 mL)	1 unit / box
VTP-1201	1 in x 2 in Sheet, 0.03 oz Solution (2.5 cm x 5 cm, 1 mL)	1 unit / box

Availability of these products is in the United States only. Always refer to the appropriate instructions for use for complete clinical instructions. Non contractual document. The manufacturer reserves the right, without prior notice, to modify the products to improve quality. Warning: Applicable laws restrict these products to sale by or on the order of a physician.

For more information or to place an order, please contact:

800.206.5586

[sales@alafairbiosciences.com](mailto:sales@alafairbiosciences.com)

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