Treatment of Chronic Peroneal Tendinopathies using Percutaneous Tenotomies: A Technique Guide and Case Series

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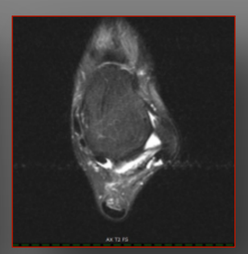
Introduction/Purpose

Several options have been described in the treatment of tendinopathies including percutaneous options such as radiofrequency ablation and open tendon debridement. In this report, we describe a minimally invasive approach for debridement using a percutaneous tenotomy system of Peroneal tendons in patients with chronic peroneal tendinopathy. This case series includes 3 patients who underwent this procedure. Follow up course was over 12 months on all patients with good outcomes reported. Our purpose is to present a less invasive manner to treat this pathology.

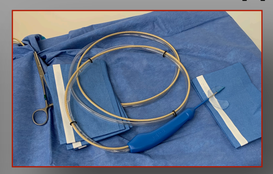
Case Presentation

40 year old female patient with unremarkable past medical history who presented with long standing left lateral ankle and foot pain. On examination, pain was localized to the posterior aspect of the fibular groove along the course of the Peroneus Longus and Brevis tendons as well as pain with inversion of the foot. MRI revealed tenosynovitis within the Peroneal tendon sheath as well as small tears within the Peroneus Brevis tendon, just behind the Peroneal groove. Patient failed conservative treatment including immobilization, bracing, oral and injectable anti-inflammatories. At this time patient was amenable to surgical intervention.



Surgical Technique

Procedure is performed under monitored anesthesia care with a regional block in a supine position with the ipsilateral hip bumped. No tourniquet is used during the procedure. Three small incisions are marked: 5 cm proximal to the distal fibula; posterior to the lateral malleolus, and distally near the styloid process. A #15 blade is used to make the stab incisions and carried into the tendon sheath. At this level sharp instrumentation is introduced into each tendon in a pistoning manner to break down scar tissue. Our system used an inflow of sterile saline to further aid in the tendon debridement. This step is repeated both proximally and distally through each of the incisions. After flushing the surgical sites, steri-strips are applied over the incision and the patient is placed in a soft dry sterile dressing. Post operatively patients were placed in a removable walking boot and allowed to weight bear as tolerated while performing range of motion exercises at home. At the four week mark patients began to transition into well supportive sneakers.



Case Series

Our case series includes 3 patients ages 30-60 who presented with lateral ankle and foot pain. All patients had MRIs of the ankle pre operatively revealing tenosynovitis of the Peroneal tendons. Two patients had small tears within Peroneus Longus tendon behind the fibular groove. All patients were treated with the described procedure. Successful reduction in pain post operatively along with short recovery time was noted. No complications were encountered in our patient series.

Discussion

Peroneal tendons pathology is a very common occurrence with open tendon debridement and repair being one of the most commonly used techniques which has proven to be successful. In our case series we described a minimally invasive option with the use of a percutaneous tenotomy system to debride and remove scar tissue formation. This allows a shorter recovery with improvement in pain post operatively, making this a great option for chronic tendinopathies that fail conservative treatment measures. We noted this to be a viable option even with patients with low grade tendon tears.

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