

# USGPPF - Y100 Kit

ULTRASOUND GUIDED PARTIAL PLANTAR FASCIECTOMY

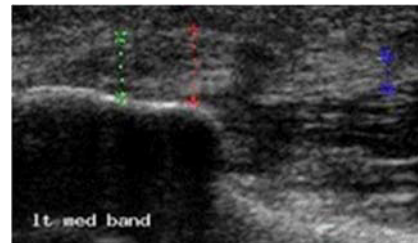
As described by Dr. Stephen Barrett, DPM, FACFAS

## Introduction

Partial plantar fasciectomy with the introduction of platelet rich plasma and/or amniotic allograft is an effective technique for the treatment of plantar fasciopathy. This minimally invasive technique is generally effective in 90+% of cases and does not alter the biomechanics of the foot.

The key success factors include thorough debridement of degenerative tissue (hypochoic on ultrasound) of the plantar fascia prior to the introduction of the soft tissue bolstering biologic.

The Vilex USGPPF Instrument Kit is an integral piece to a successful partial plantar fasciectomy. The cross threaded rasp allows for maximum efficiency in debriding the degenerative tissue, while the uniquely designed obturator and cannula ensure that no epidermal cells are introduced into the fascia.



Thickened plantar fascia. Hypochoic areas indicate degenerative tissue.

### INDICATIONS FOR USE

This technique is indicated for patients with recalcitrant plantar fasciopathy or those with moderate to severe plantar fasciopathy as visualized with diagnostic ultrasound.

# 1 Patient positioning

The patient is placed in a supine position with the feet hanging off the table to provide accessibility with the ultrasound probe, and prepared and draped in the standard manner. No tourniquet is needed, but can be used if desired.

The ultrasound machine is best placed on the lateral side of the extremity being addressed.

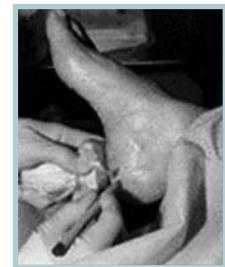
# 2 Anesthetic

Preemptive local anesthesia (usually lidocaine) is infiltrated proximally—NOT into the region of the plantar fascia as this is known to decrease tenocyte regeneration

# 3 Incision Preparation

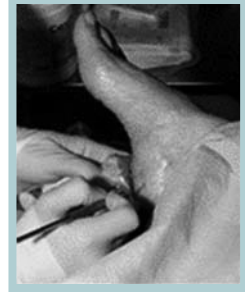
Incision placement is determined via visualization of placement of a 25-gauge needle into the medial aspect of the plantar fascia with DUS. The surgeon should center the incision placement on the medial aspect of the heel so the needle is placed and visualized in the center both dorsally and inferiorly as well as posterior to anterior.

Needling of the each area of the plantar fascia, from inferior to superior, should be carried out to the extent that the plantar fascia is prepared via this fenestration to accept placement of the mini-fascia rasp. There usually will be very little resistance in the degenerative areas of the plantar fascia as compared to more resistance within healthier tissue.



## 4 Incision

A 3mm incision is made using a #11 blade, being careful not to bury the blade past the dermis, which assures that any subcutaneous medial calcaneal nerve branch will not be injured.



## 5 Insert Cannula/Obturator

The mini-obturator/cannula is then placed through the incision until the medial aspect of the plantar fascia is felt by the resistance. The obturator is then removed. The use of the cannula prevents the inadvertent possibility of introduction of epidermal cells into the plantar fascia when the mini-fascia rasp is used.

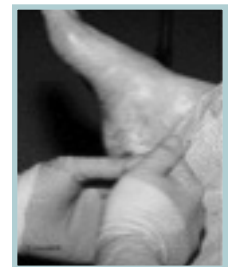


The cannula is then removed. It is very important NOT to introduce the tissue allograft infiltration through this instrumentation, as some would leak out back through the cannula.

## 6 Closure

Because the incision is kept to less than 3mm, combined with the thickness of the epidermis typically encountered in this area, there is usually no need for a suture.

Placement of Ropivacaine (least cytotoxic) is done proximal, both medial and lateral, to provide long lasting postoperative analgesia. Direct placement of the local anesthetic into the plantar fascia could negate optimal outcomes for the technique. The incision until the medial. The use of corticosteroids is not advised.



## POST-OPERATIVE CONSIDERATIONS

- Prescribe necessary postoperative pain medications, however, do not prescribe any NSAIDs or combination drugs which contain an anti-inflammatory component. The goal is to create a new tissue-healing cascade of which inflammation is the vital first phase.
- Minimize weight bearing on the heel for 10-14 days.
- When returning to full weight bearing, advise the patient to avoid barefoot walking, especially on hard surfaces, and use a soft, comfortable, shock-absorbing shoe.
- The first postoperative DUS assessment should be done no earlier than 6-8 weeks as no tissue regeneration will be noted until that time. Changes in signal intensity will be seen prior to decreases in PF thickness. Clinical experience has shown that while preoperative assessment of thickness is critical in making an accurate diagnosis, this does not correlate to patient outcomes.
- If a patient is still experiencing pain 8 weeks post-procedure, the surgeon should consider an infiltration of a steroid, under DUS guidance, to alleviate any chronic inflammation from the surgery. The infiltrate should be placed into the substance of the PF—not around it.
- If a patient still has heel pain from plantar fasciopathy after this treatment, consideration can be given to a second USGPPF with tissue allograft, endoscopic plantar fasciotomy, or other surgical procedures.

## POTENTIAL COMPLICATIONS

As this procedure is a minimally invasive, regenerative technique, complications from this surgery are rare. Potential complications could include cellulitis, swelling, injury to a medial calcaneal nerve branch and skin reaction to the steri-strip.

## Y100 USGPPF Instrument Kit Contents

- (1) Y101 Cannula
- (1) Y102 Obturator
- (1) Y103 Rasp
- (1) Y104 Trepine
- (1) Y105 Compact Sterilization Kit
- (2) K100-11S Wire, Single Trocar
- (1) H100 Handle w/triangle connect



Y100 SHOWN. Y110 KIT AVAILABLE W/O HANDLE  
INDIVIDUAL PARTS AVAILABLE FOR PURCHASE  
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