

No-Scalpel Vasectomy *Workshop*



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July 2024

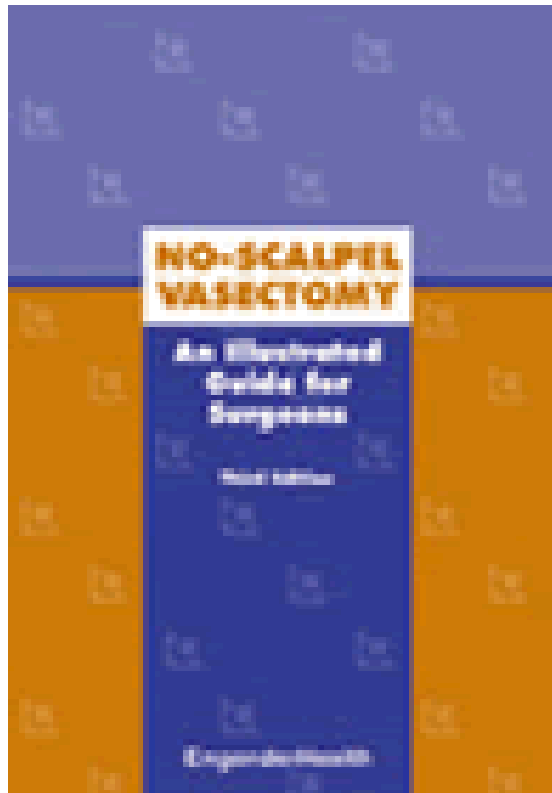
Objectives

- At the end of this workshop, you should be able to simulate all the technical steps of No-Scalpel Vasectomy
 - 3-finger technique to isolate the vas
 - Anesthesia with a mini-needle
 - Delivery of the vas with the no-scalpel technique
 - Occlusion of the vas with mucosal cautery and fascial interposition

Instructions

- 2-3 trainees per scrotal model with a trainer
- Presentation for right-handed surgeons...
 - Right-handed stands on right side of the patient
 - Left-handed stands on the left side of the patient

No-Scalpel Vasectomy



Sexual Function/Infertility

Minimizing Pain During Vasectomy: The Mini-Needle Anesthetic Technique

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Purpose: We describe pain scores for a modified anesthesia technique for no-scalpel vasectomy using a 1-inch 30 gauge mini-needle.

Materials and Methods: A prospective study was performed in 277 patients who received anesthesia using a 3 cc syringe filled with approximately 2 cc 2% lidocaine without epinephrine and a 1-inch 30 gauge needle. Local anesthesia was given directly to the vas at the expected surgical site on each side.

Results: Mean \pm SD pain intensity score on the 10 cm visual analog scale was 1.5 ± 1.6 (95% CI 1.3–1.7) during the anesthesia and 0.6 ± 1.0 (95% CI 0.5–0.7) during the procedure. Patients experienced less pain during anesthesia and the procedure than they expected before vasectomy (average 3.1 ± 1.8 , 95% CI 2.8–3.3).

Conclusions: The mini-needle technique provides excellent anesthesia for no-scalpel vasectomy. It compares favorably to the standard vasal block and other

Abbreviations and Acronyms

EMLA = eutectic mixture of local anesthetics

NSV = no-scalpel vasectomy

SCB = spermatic cord block

VAS = visual analog scale

VDS = visual descriptive scale

Submitted for publication September 6, 2009.
Study received hospital medical director approval.

Surgical Technique

International Braz J Urol

Vol. 37 (5): 630-635, September - October, 2011

Vasectomy Occlusion Technique Combining Thermal Cautery and Fascial Interposition

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ABSTRACT

Introduction: Recent research on vasectomy shows that combining cautery and fascial interposition (FI) achieves the most effective occlusion of the vas and minimizes the risk of failure. We present a technique that combines cautery and FI and is suitable for low-resource settings.

Surgical Technique: The surgical technique consists of 1) exposing the vas with the no-scalpel approach; 2) cauterizing the epithelium of lumen of the vas using a portable battery-powered cautery device; 3) performing FI by grasping internal spermatic fascia and applying a free tie with suture material on the fascia to cover the prostatic stump of the vas and separate the two ends of the cut vas; and 4) excising a small 0.5 to 1 cm of the testicular stump.

Comments: To maximize vasectomy effectiveness, vasectomy providers should consider learning thermal cautery and FI to occlude vas deferens.

The Surgical Steps of Vasectomy

- **Step 2: Vas Isolation and Delivery**

- **Step 1: Anesthesia**



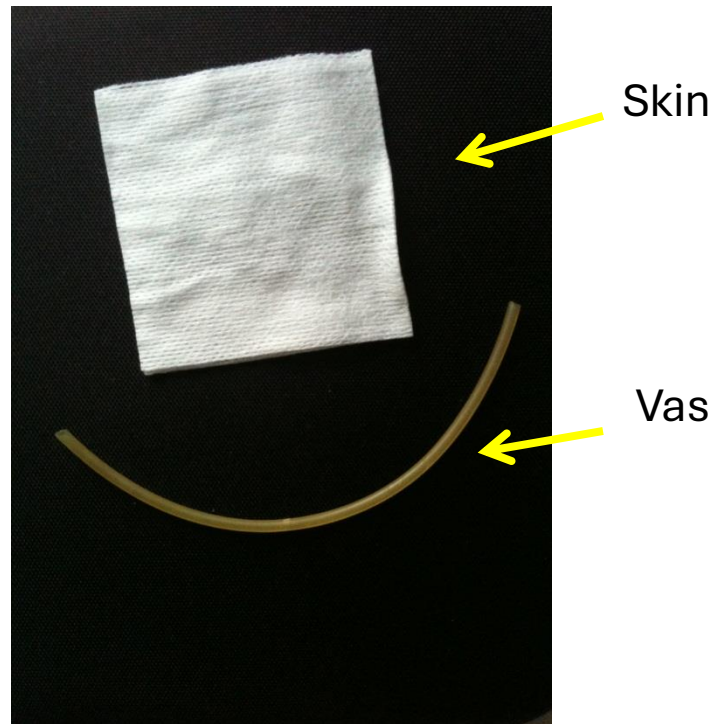
- **Step 3: Vas Occlusion**



Three-Finger Technique



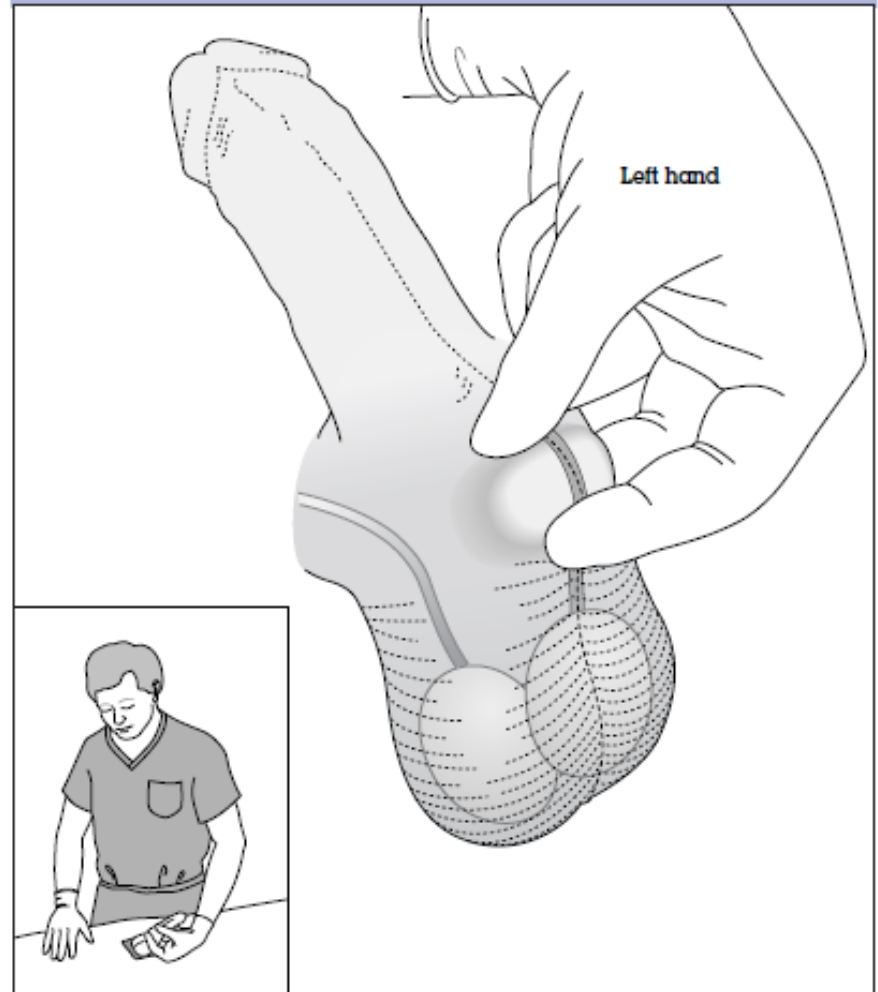
A Simple Model...



Left Vas

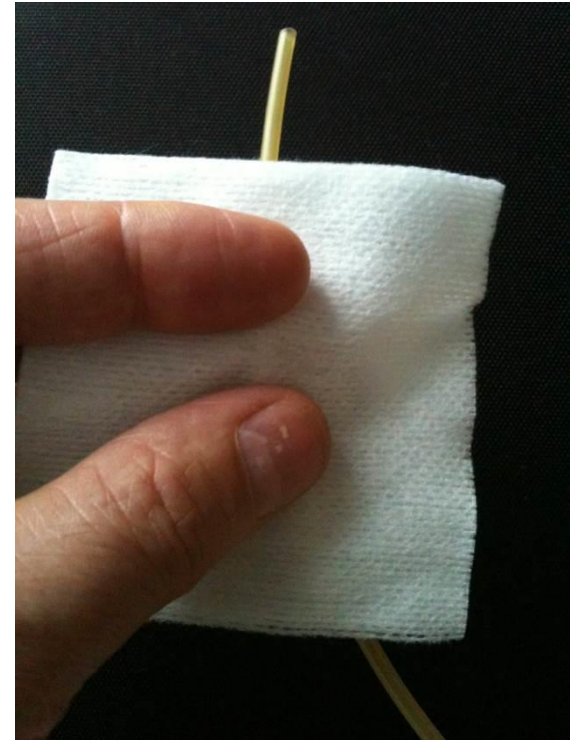
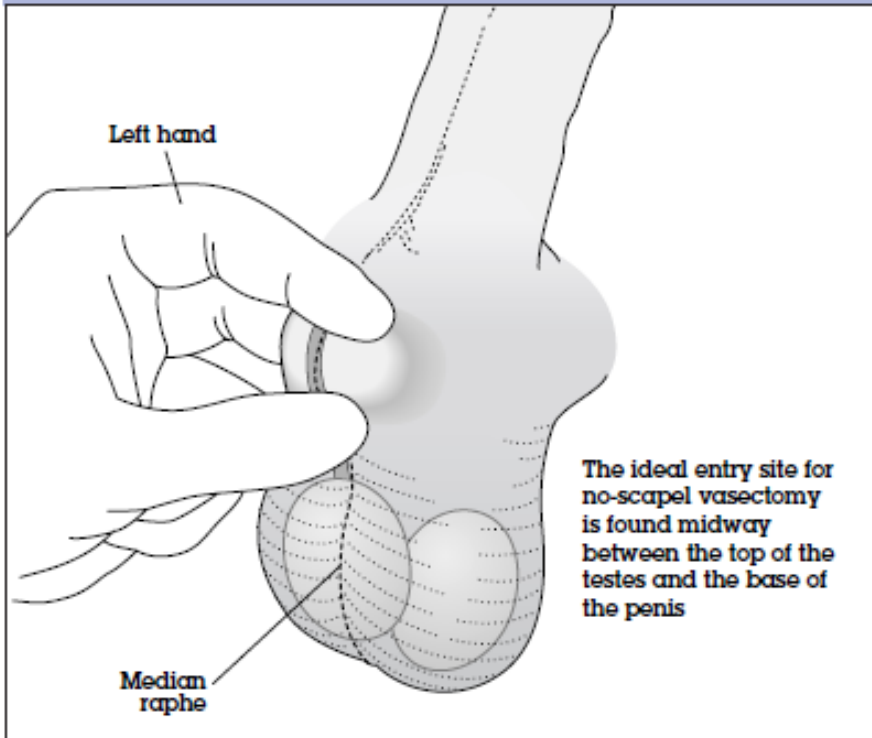


FIGURE 8. The three-finger technique: Isolating the left vas



Right Vas

FIGURE 4. The three-finger technique: Isolating the right vas



Practice



Three-Finger Technique

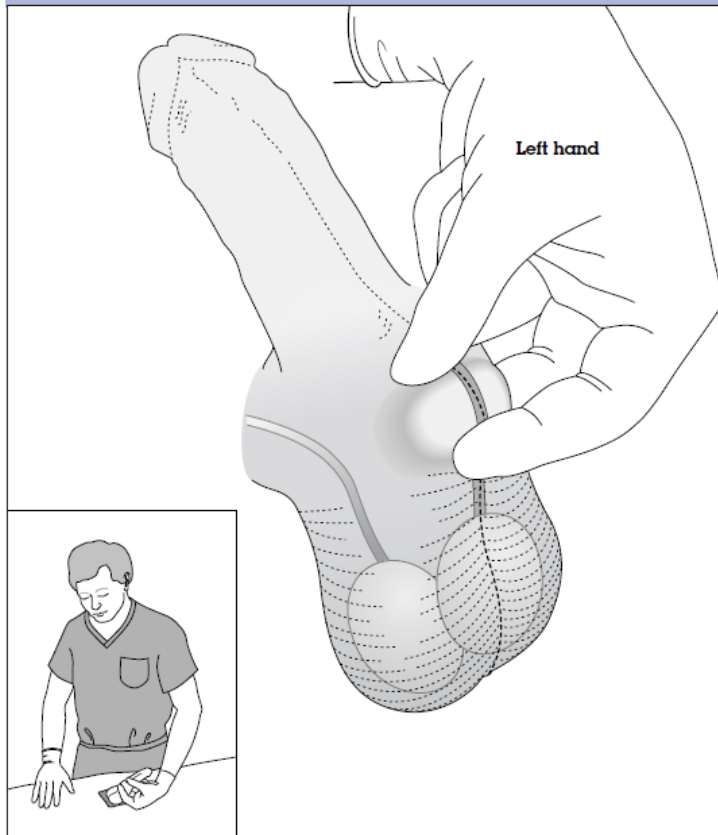
3-Finger Technique (Right Handed/Left Side)



Left hand/Left hip against the table

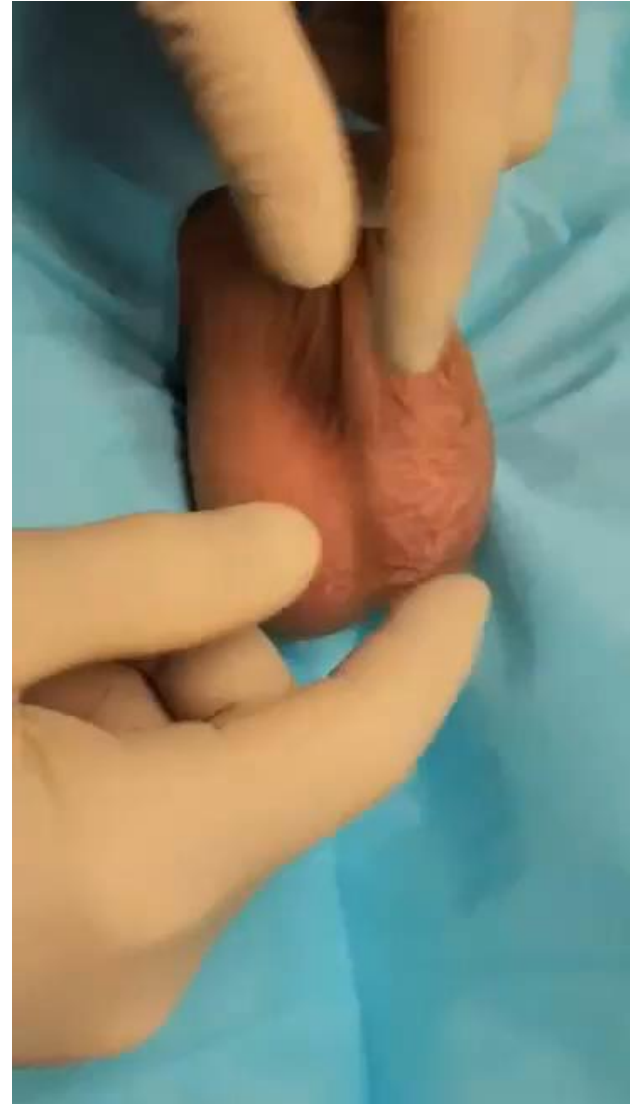
Catching the Vas

FIGURE 8. The three-finger technique: Isolating the left vas



- Thumb on the median raphe in the upper third of the scrotum
- Middle finger acting as a hook under the scrotum
- *Don't use the index finger at that time.*

Tip: Gripping and lifting the skin helps putting your middle finger under the scrotum



Catching the Vas



With thumb and middle finger

- Push downward
- Gently pinch
- Slide up and away from you

Tips for catching the vas

- Moist scrotal skin makes it easier
- Middle finger raking from below controls catching the vas
- You are looking for a firm, round structure
- Both vasa are usually the same size: Vermicelli, Spaghettini or Spaghetti al dente
- If not 100% sure: it's probably not the vas!

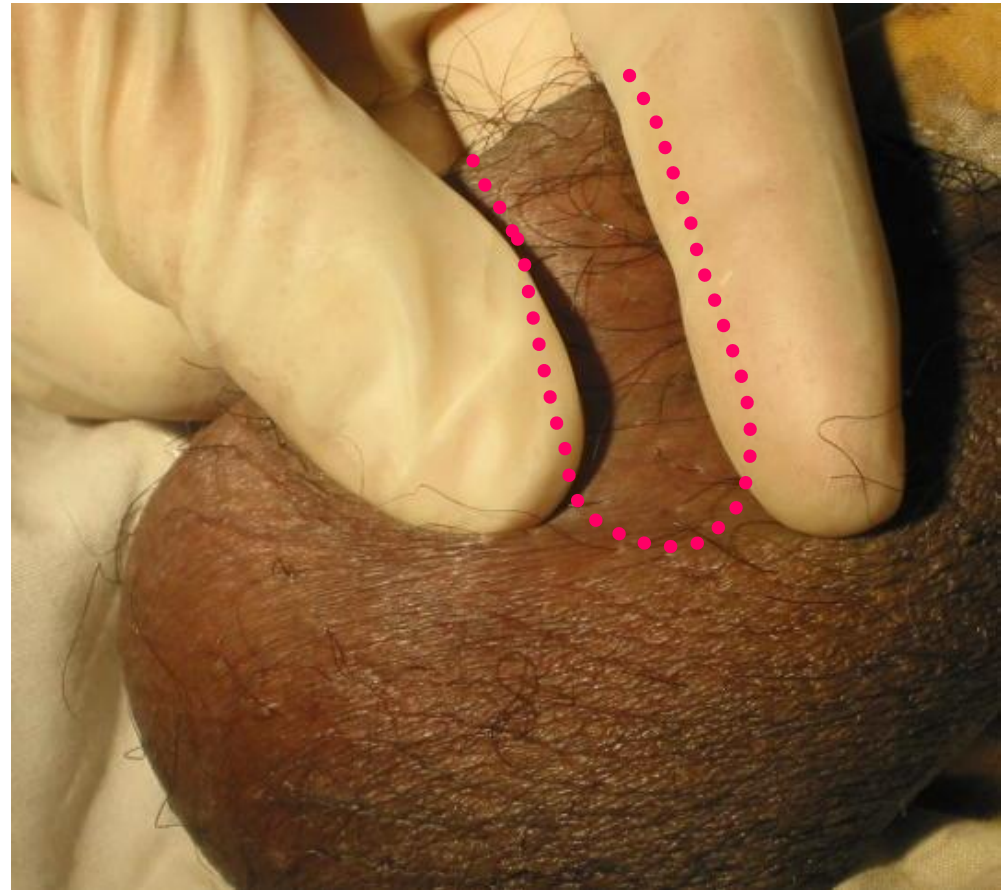
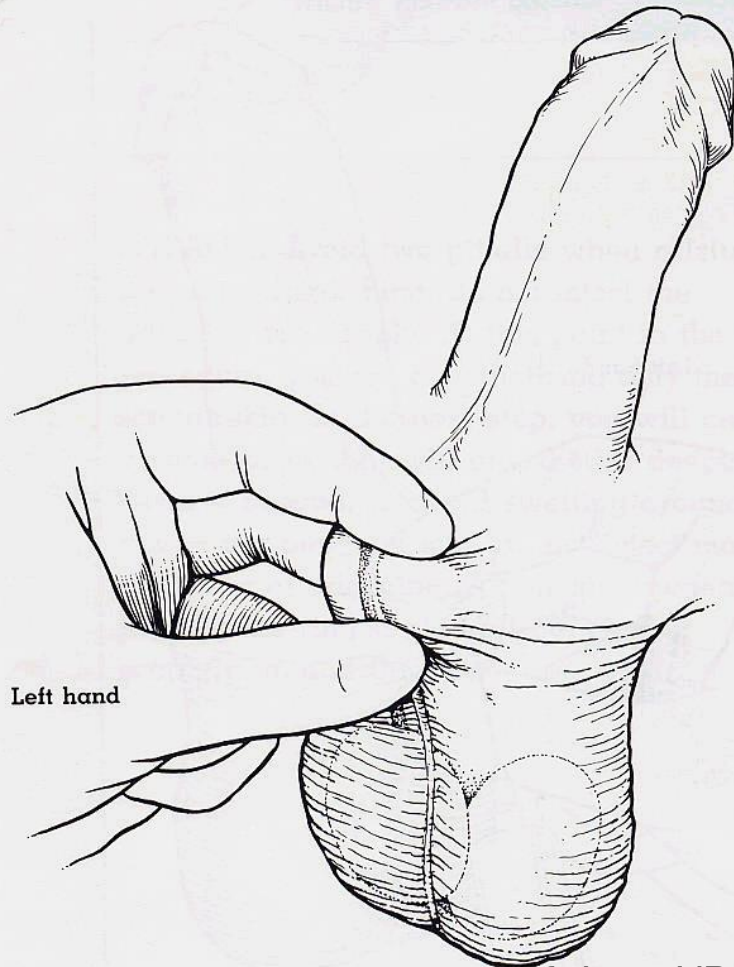
Securing the Vas on Median Raphe



- Put one finger of your right hand on the tip of the middle finger of the left hand before lifting you left thumb

3-Finger Technique (Right Handed/Right Side)

FIGURE 6 The three-finger technique:
Isolating the right vas



Left hand/Right hip against the table

Practice



Vas Isolation