



**ARIZONA CENTER FOR  
CHRONIC PELVIC PAIN**

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# Surgery

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Arizona Center for Chronic Pelvic Pain

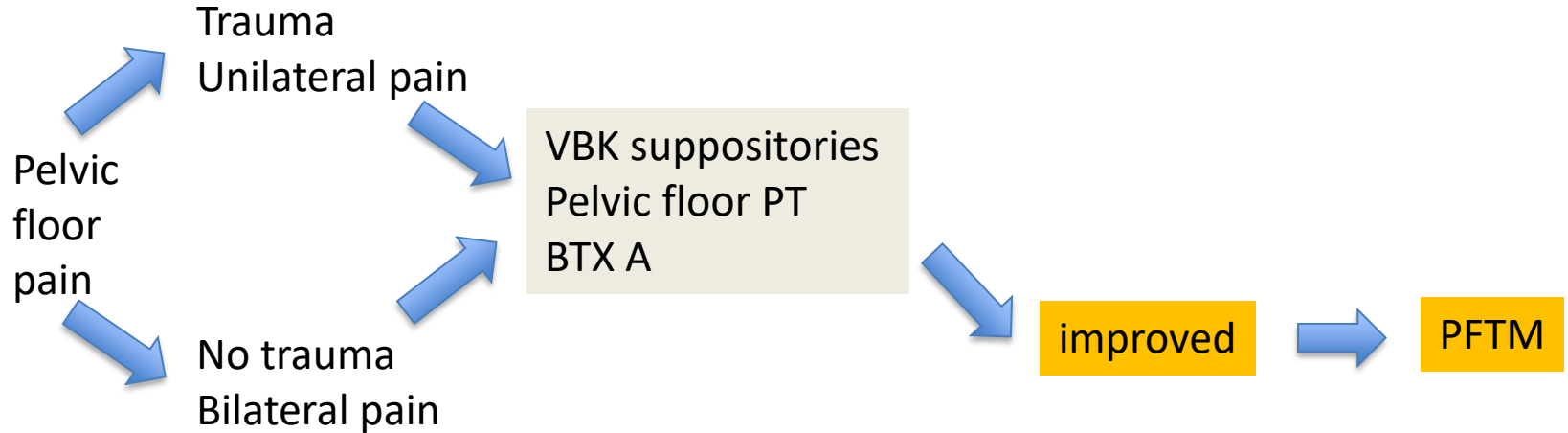
Professor of Obstetrics and Gynecology

Creighton University School of Medicine



ARIZONA CENTER FOR  
CHRONIC PELVIC PAIN

# My protocol



# Botulinum toxin A

pain improved



PFTM



Tx: VBK suppositories  
Pelvic floor PT  
Botox/Daxxify

pain not improved



Muscles spasming



Not enough BTX A



Use more  
Botox/Daxxify



Wrong spot(s)  
injected



Use different  
provider

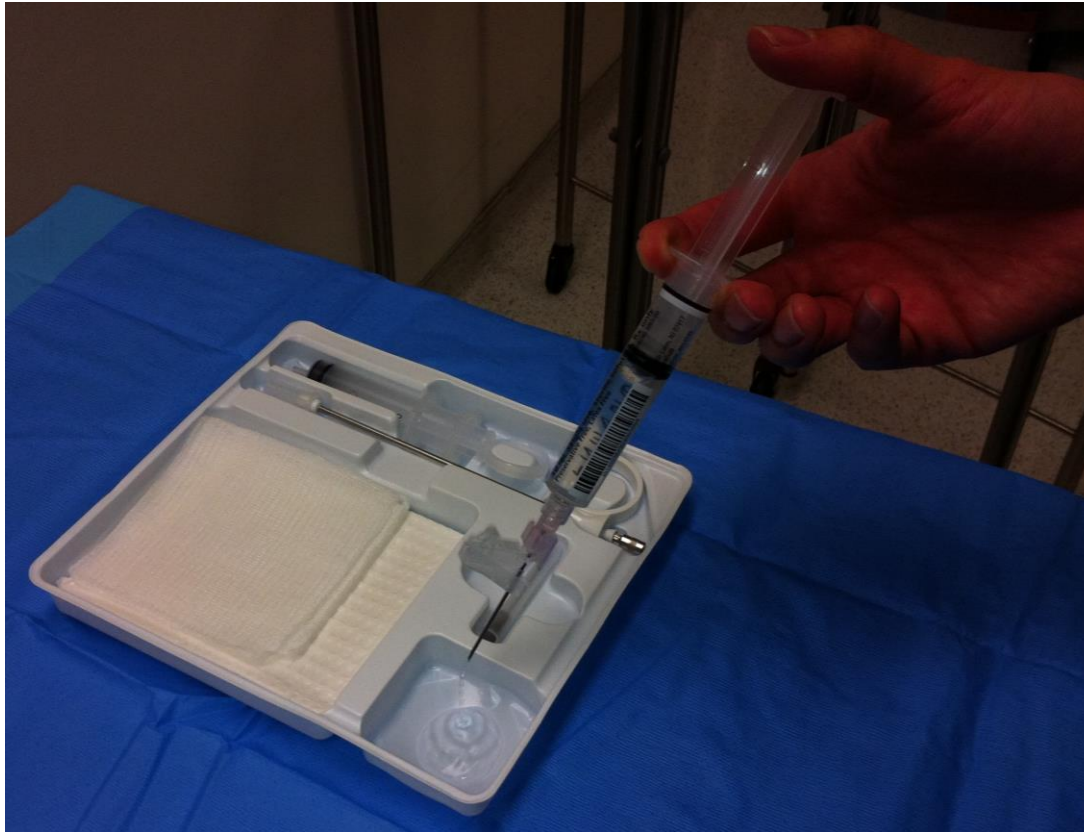
# Treatment – Botulinum toxin A

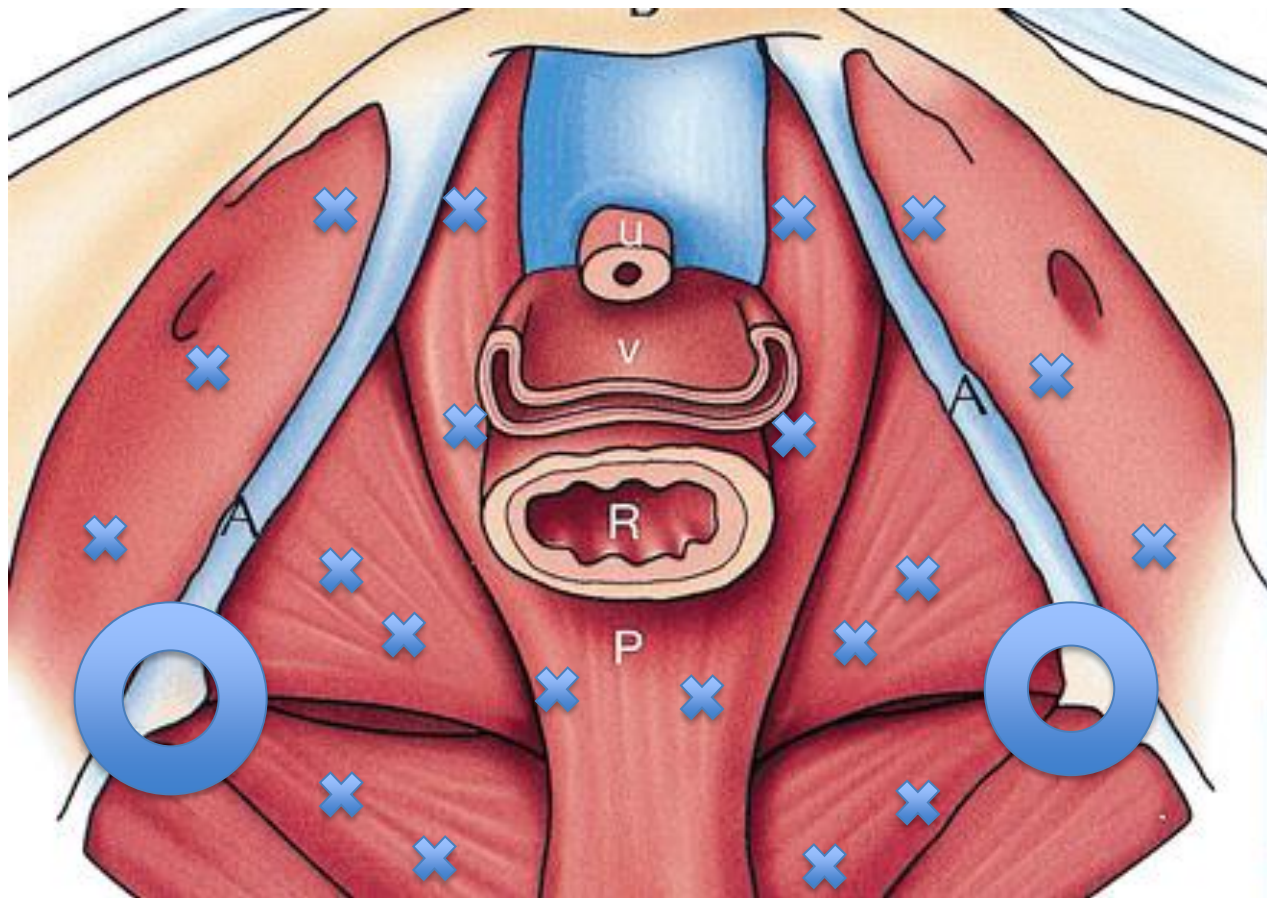
- ❖ Done under anesthesia/sedation
- ❖ Examine patient prior to sedation to identify most tender areas
- ❖ After sedation do pudendal nerve block with 0.5% Bupivacaine with epinephrine
- ❖ Dilute 200-400 units of Botox/400-800 Daaxify in 20 ml of NS
- ❖ Inject using pudendal nerve block needle at volumes 1 ml per injection deep into levator and obturator muscles (piriformis, psoas, adductor, rectus)
- ❖ Usually, patients start feeling relief from Botox about 3 weeks after the injection. If no relief and muscles feel relaxed pain is most likely due to nerve injury, not muscle spasm\*

# Botox/Daxxify and PT

- ❖ PT should ideally be done by the same therapist who was treating the patient prior to BTX-A
- ❖ Start therapy 5-7 days after BTX-A
- ❖ Assess if there is a decrease in pelvic spasm and decrease in pain

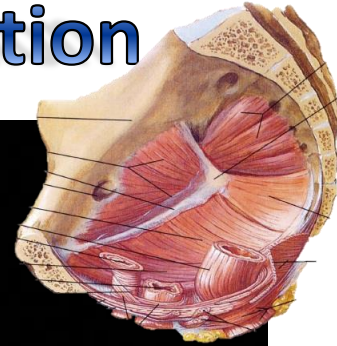
# Botulinum toxin injection



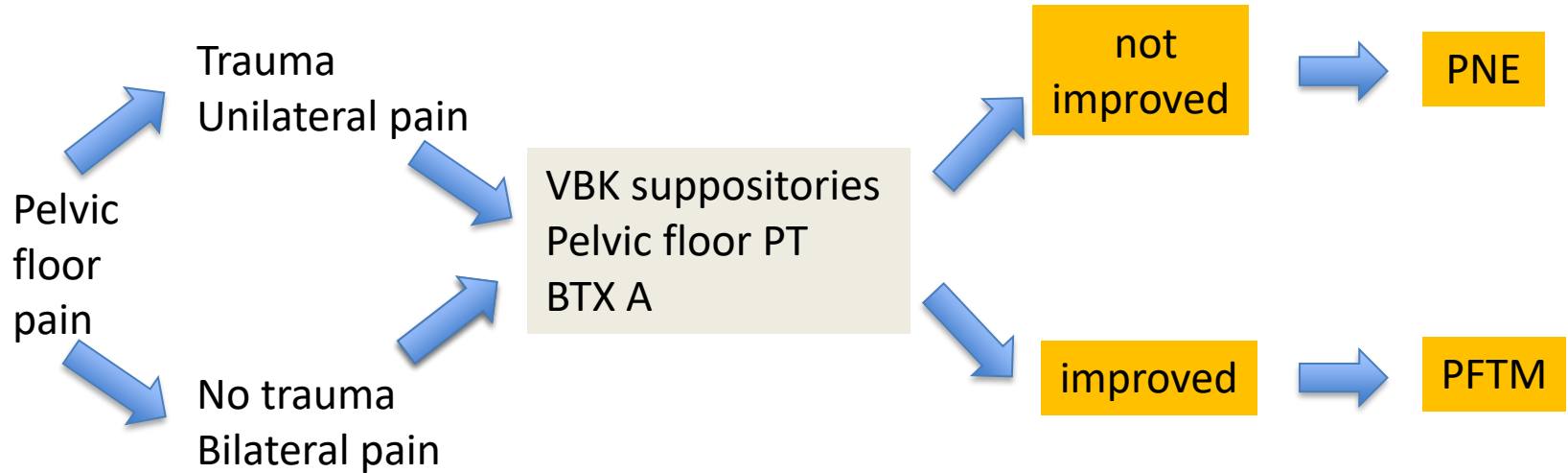




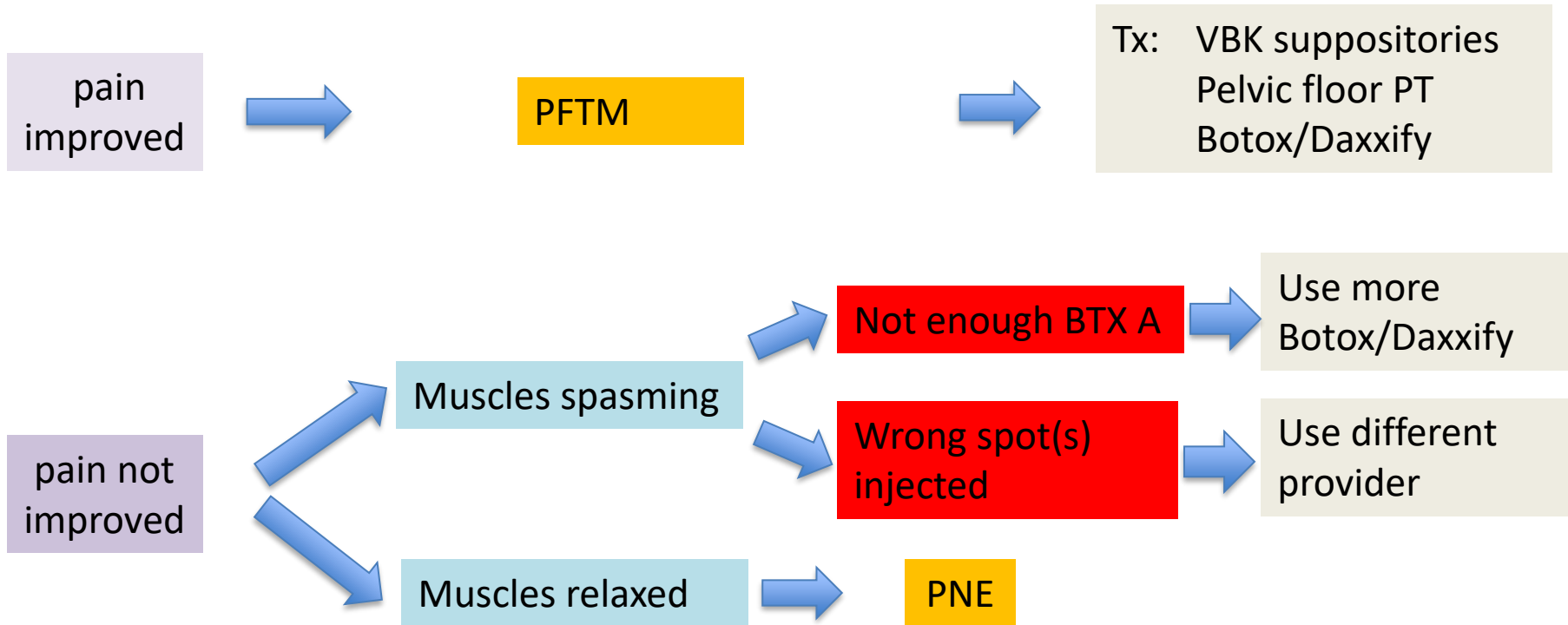
# Botulinum toxin injection



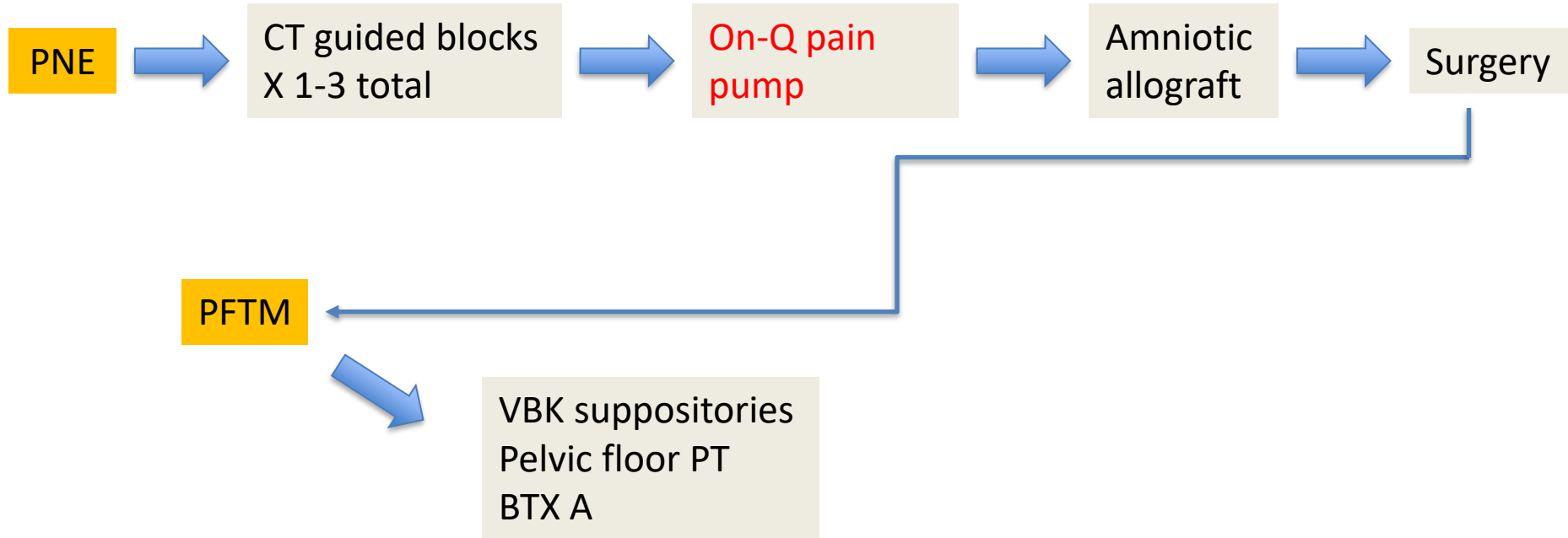
# My protocol



# Botulinum toxin A and PT

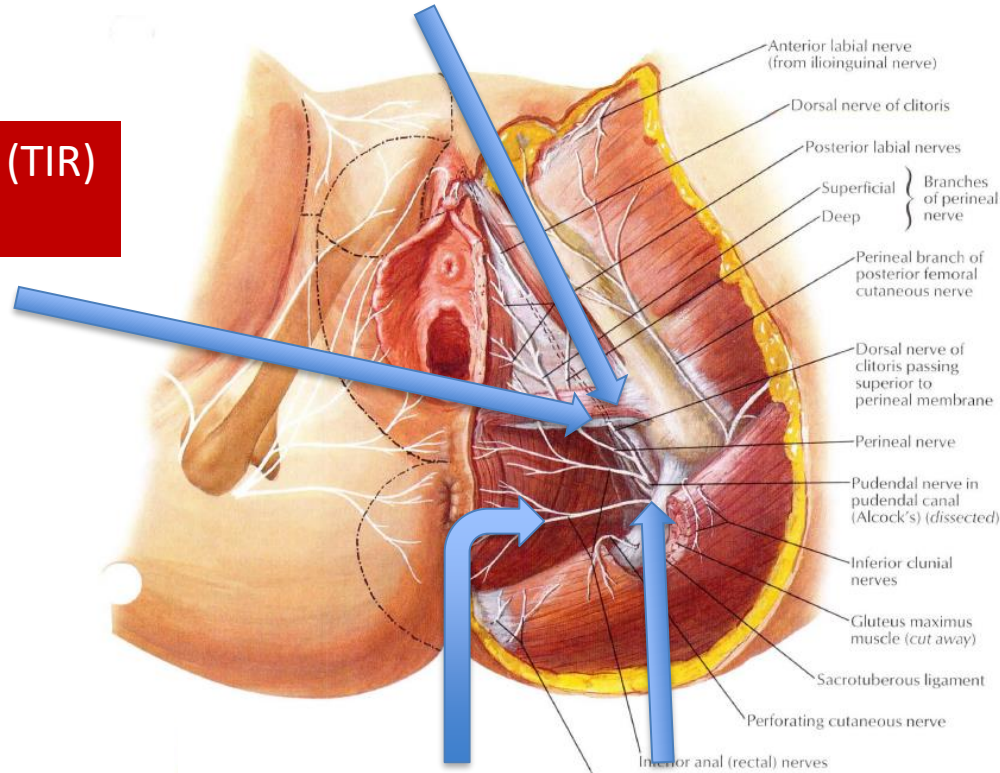


# My protocol



Laparoscopic -many

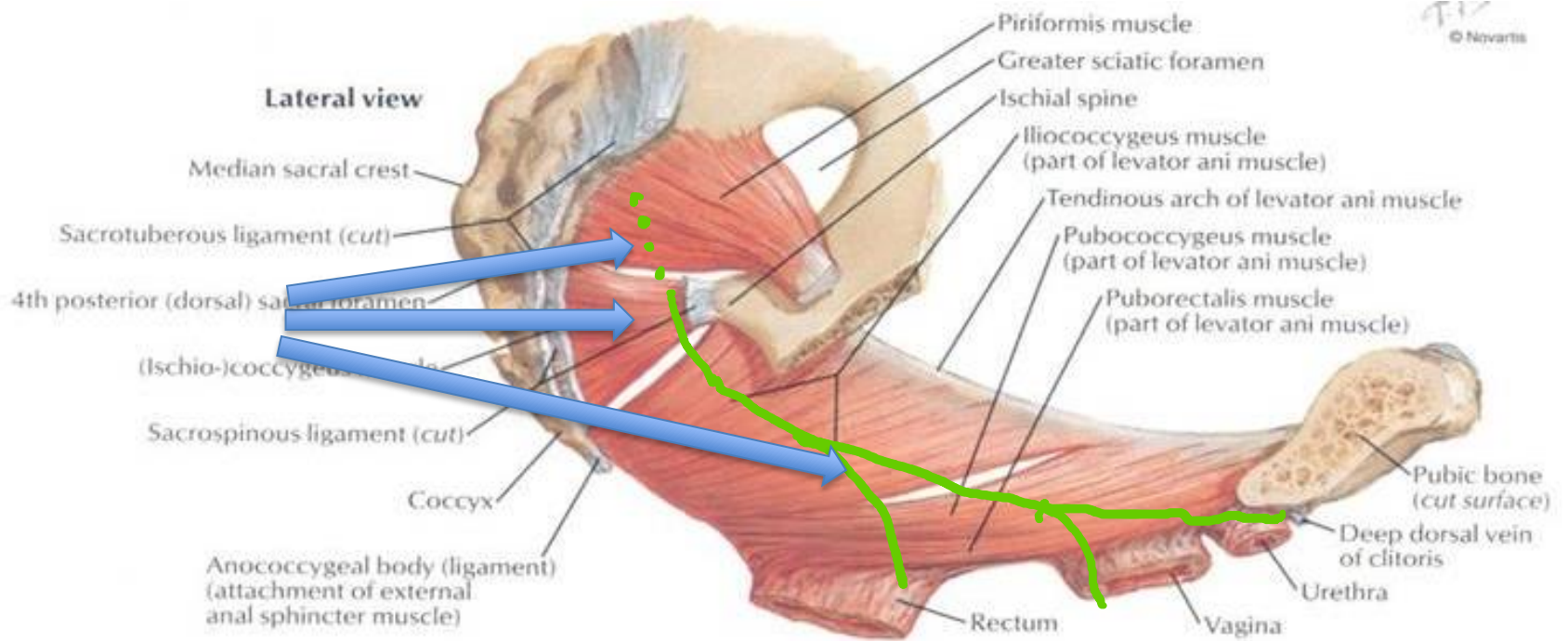
Transischioirectal (TIR)  
- Eric Baurand



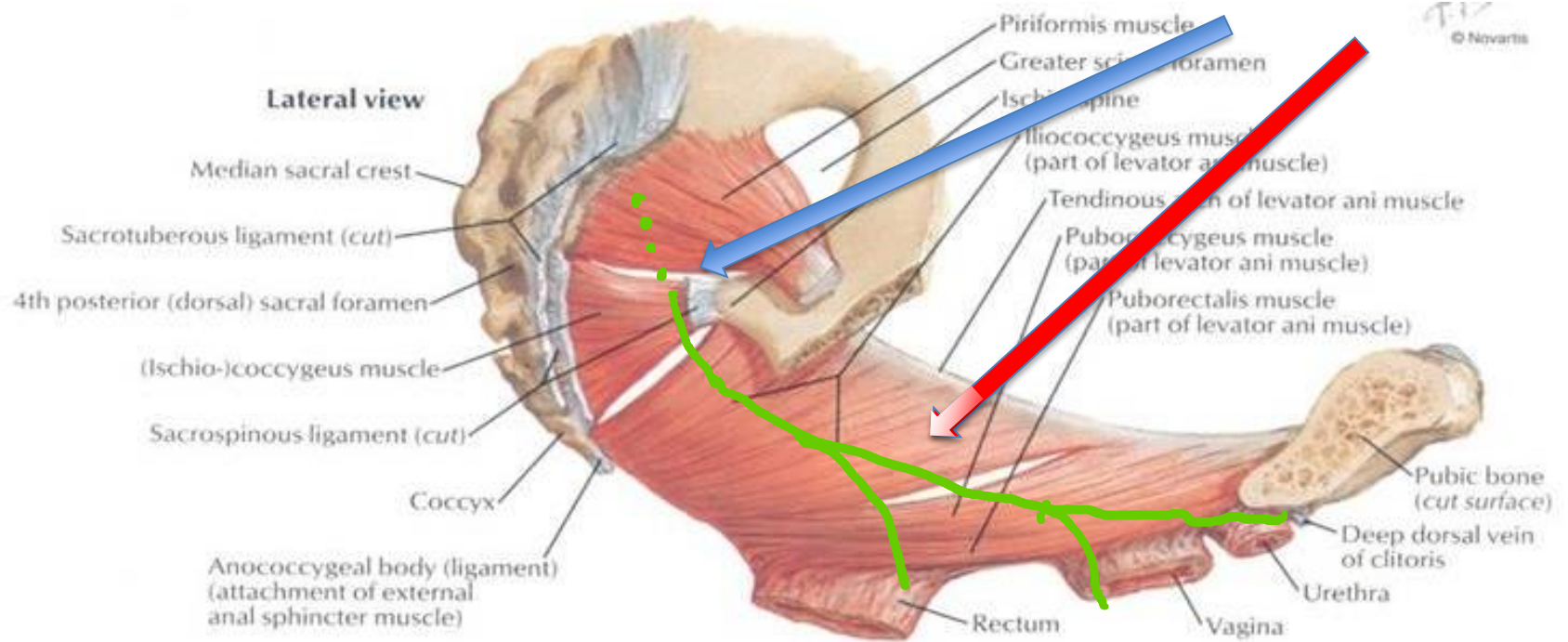
Transperineal (TP)  
- Ahmed Shafik

Transgluteal (TG)  
- Roger Robert

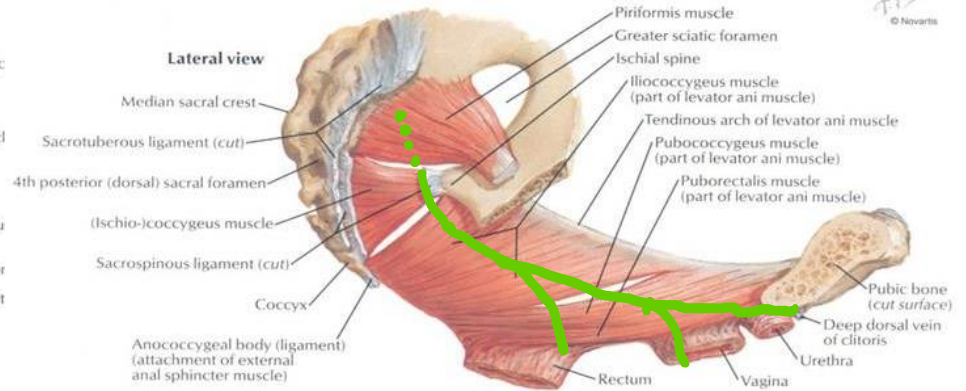
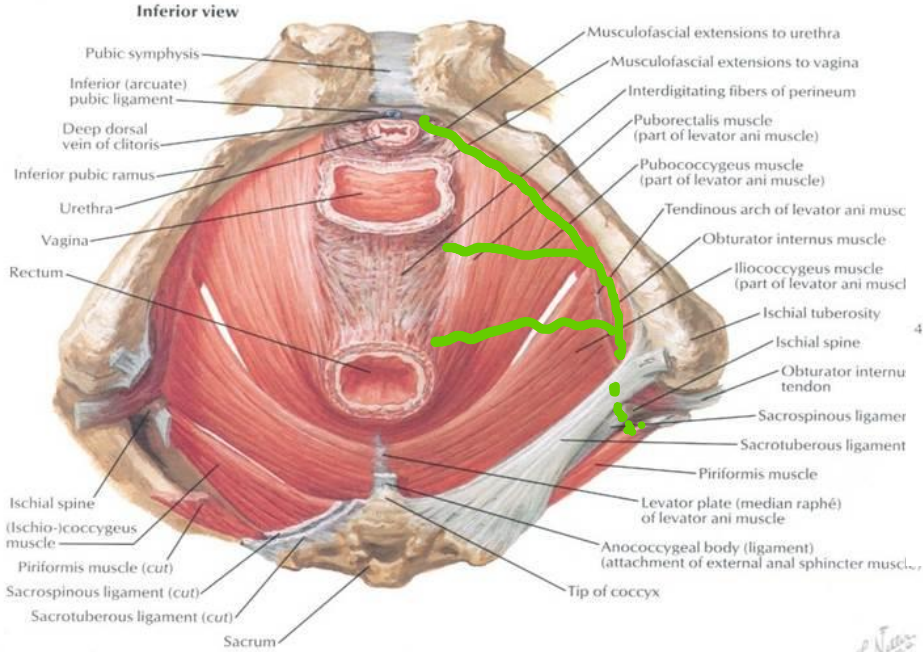
# Transgluteal



# Laparoscopic



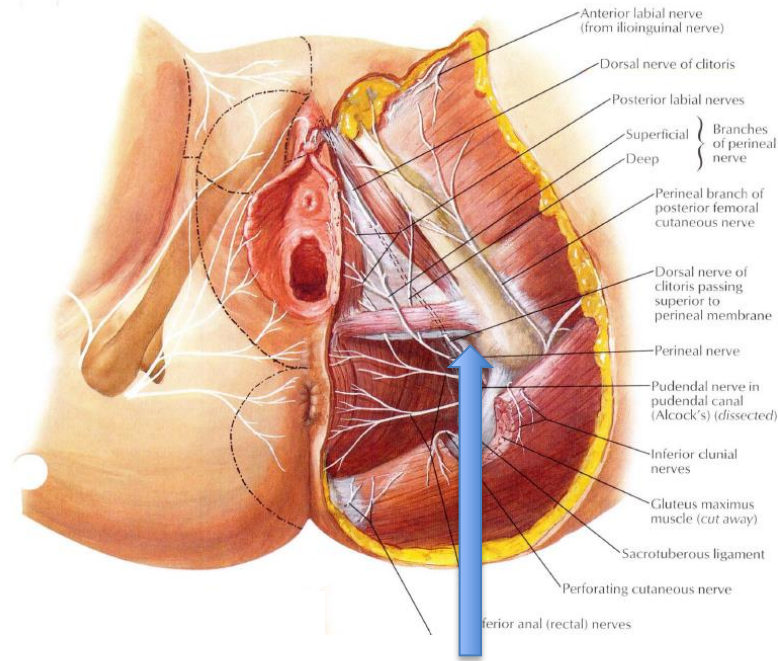




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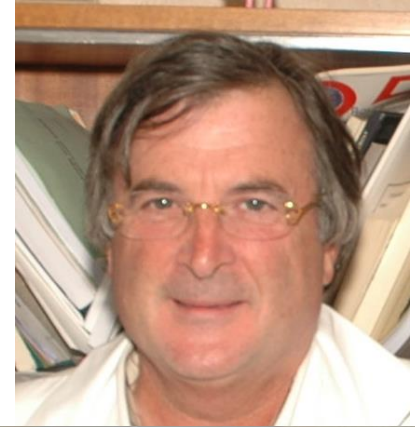




TRANSGLUTEAL

# Transgluteal pudendal neurolysis

- ❖ Developed by Prof. Roger Robert in Nantes, France – 1995
- ❖ Used his excellent knowledge of anatomy
- ❖ Modified the procedure numerous times



# TG PN neurolysis



# TG PN neurolysis

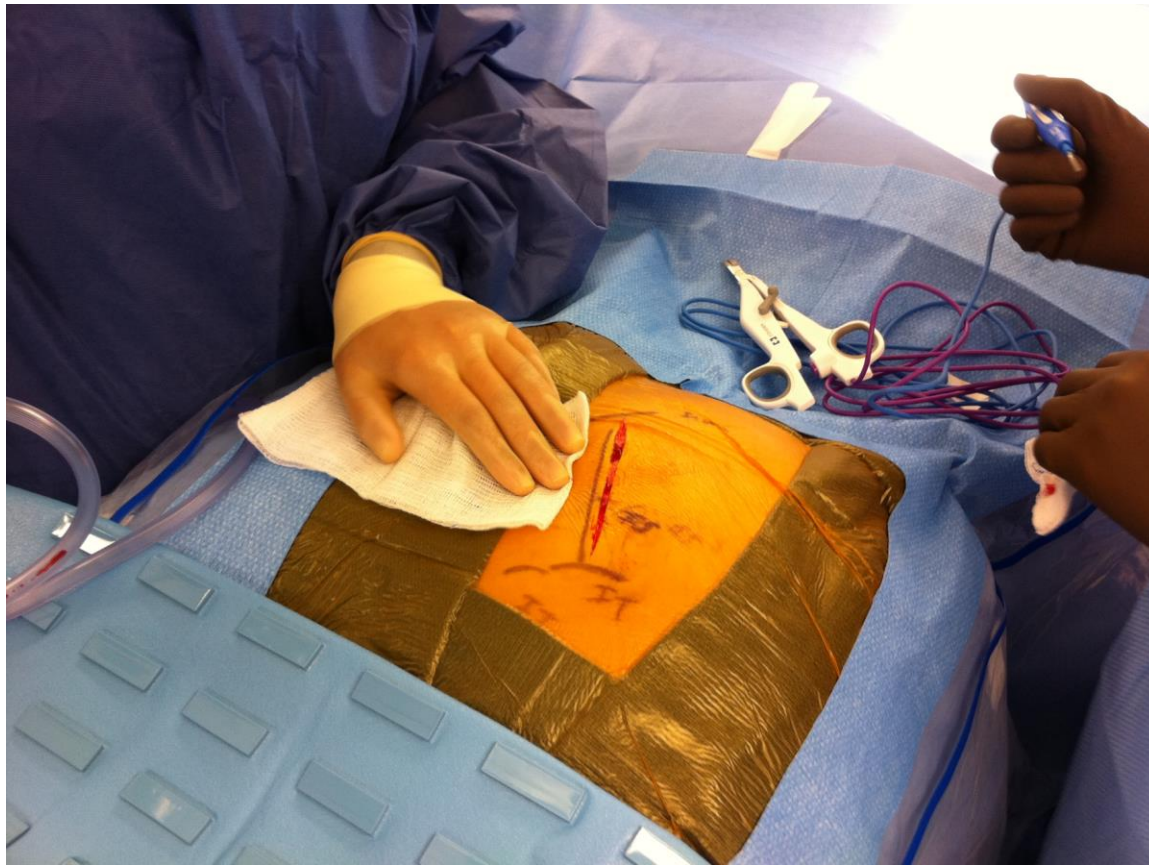




# TG PN neurolysis



# TG PN neurolysis



# TG PN neurolysis



# TG PN neurolysis

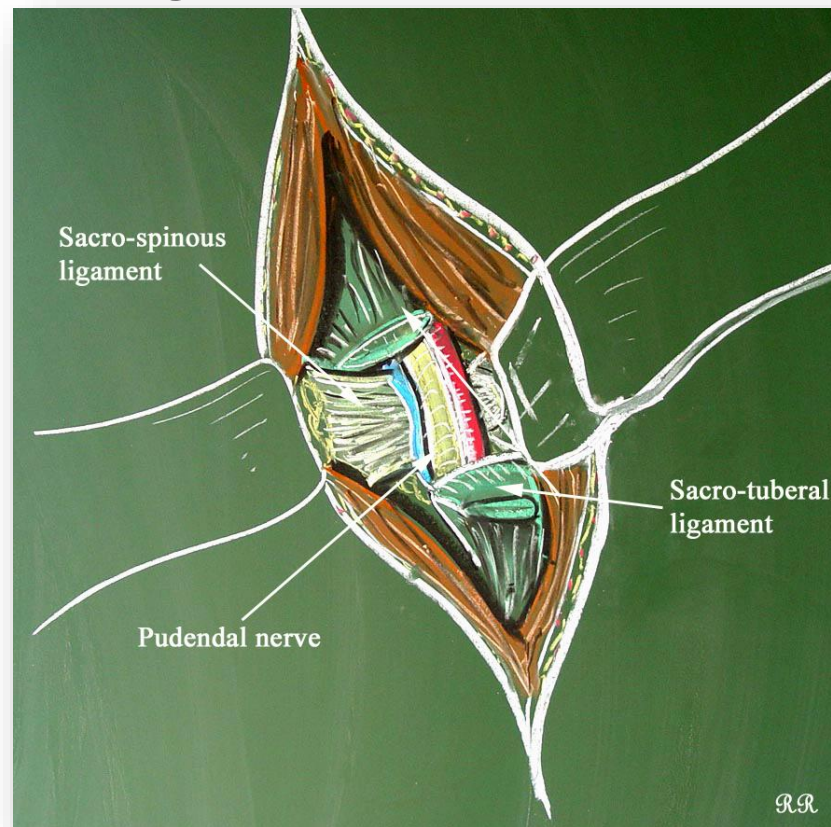
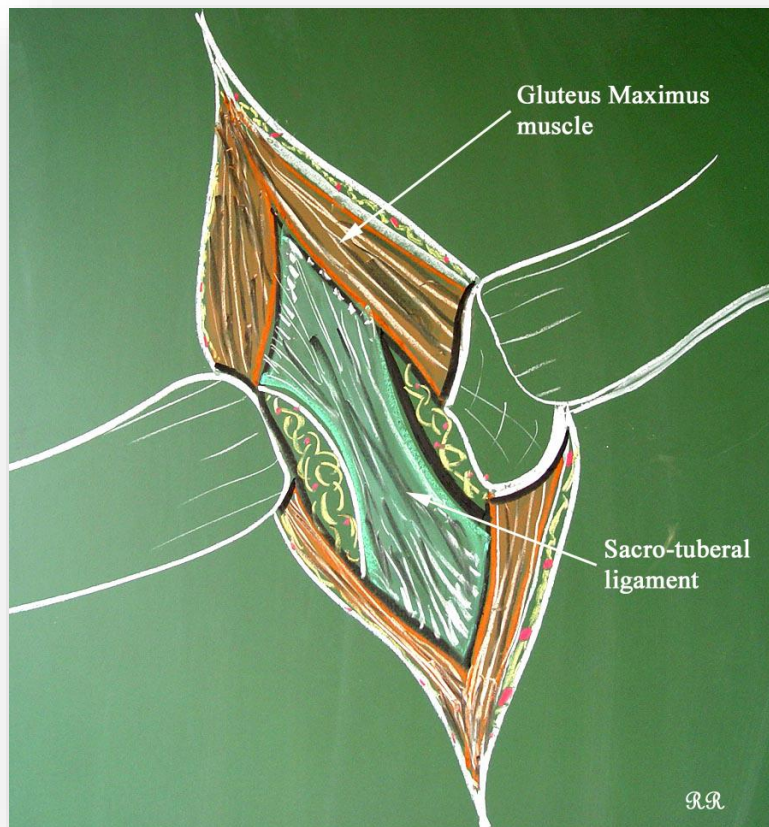




# TG PN neurolysis

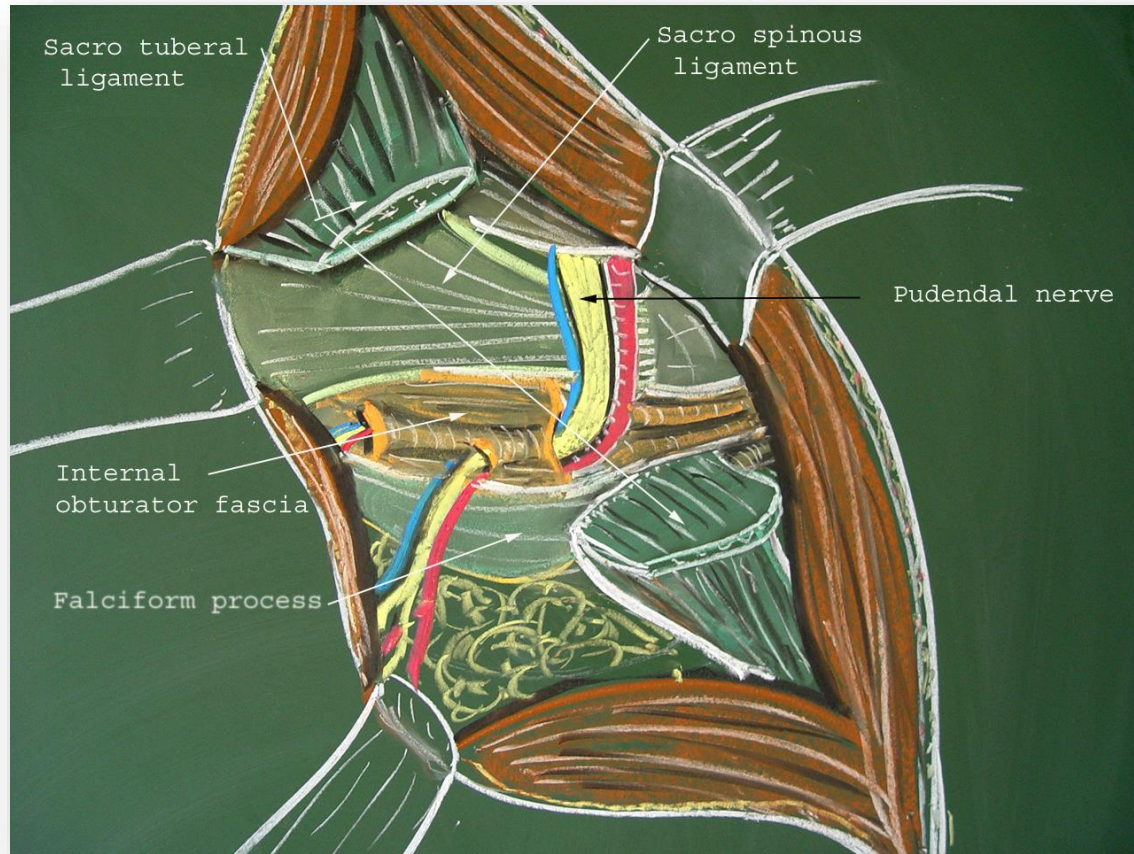


# TG PN neurolysis



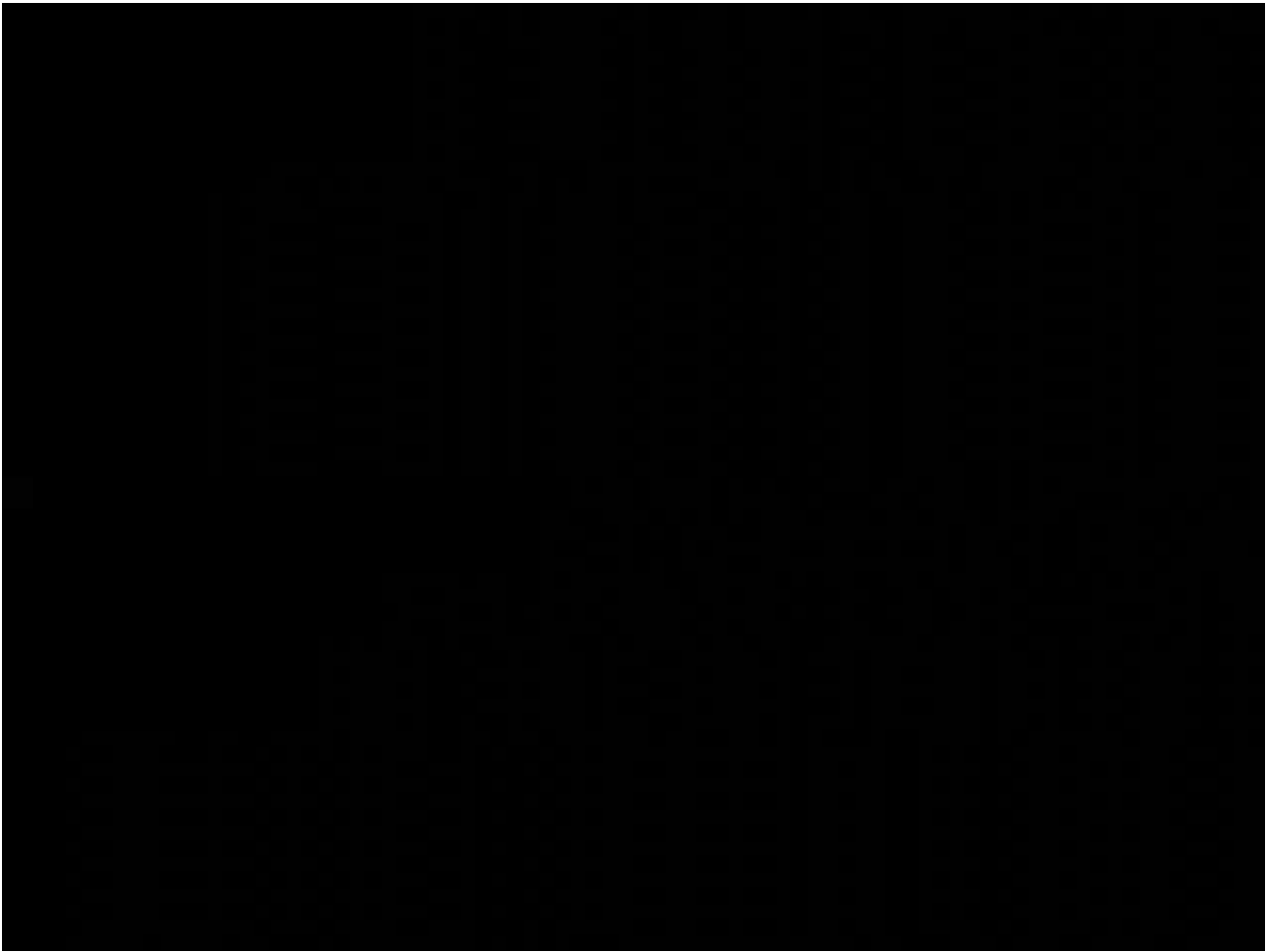


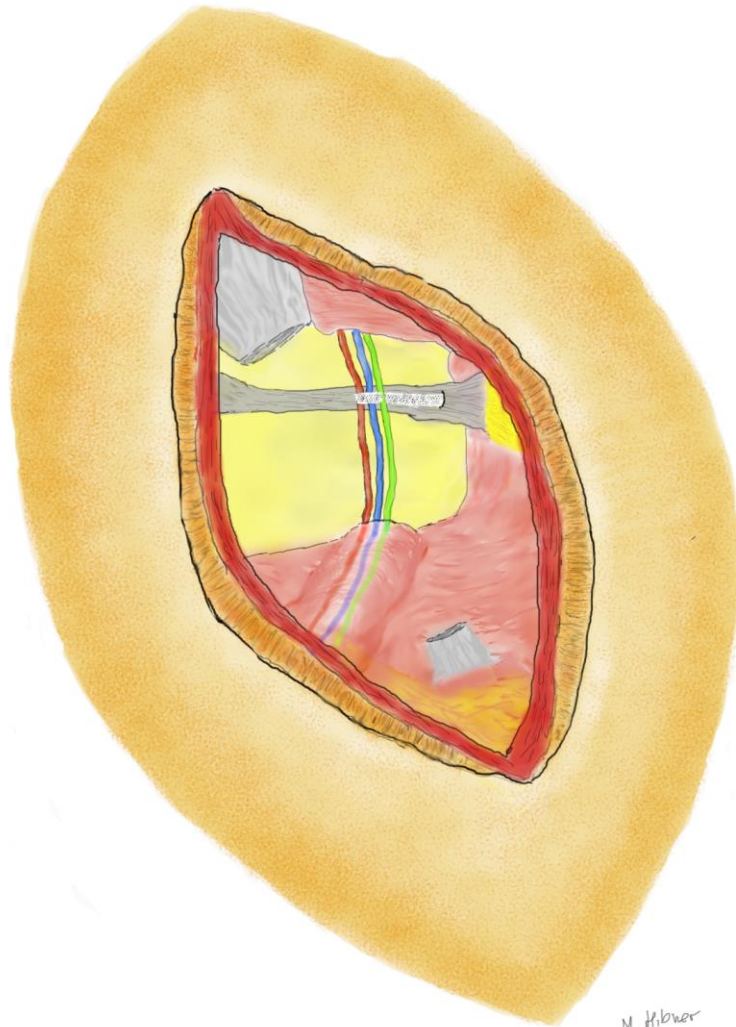
# TG PN neurolysis





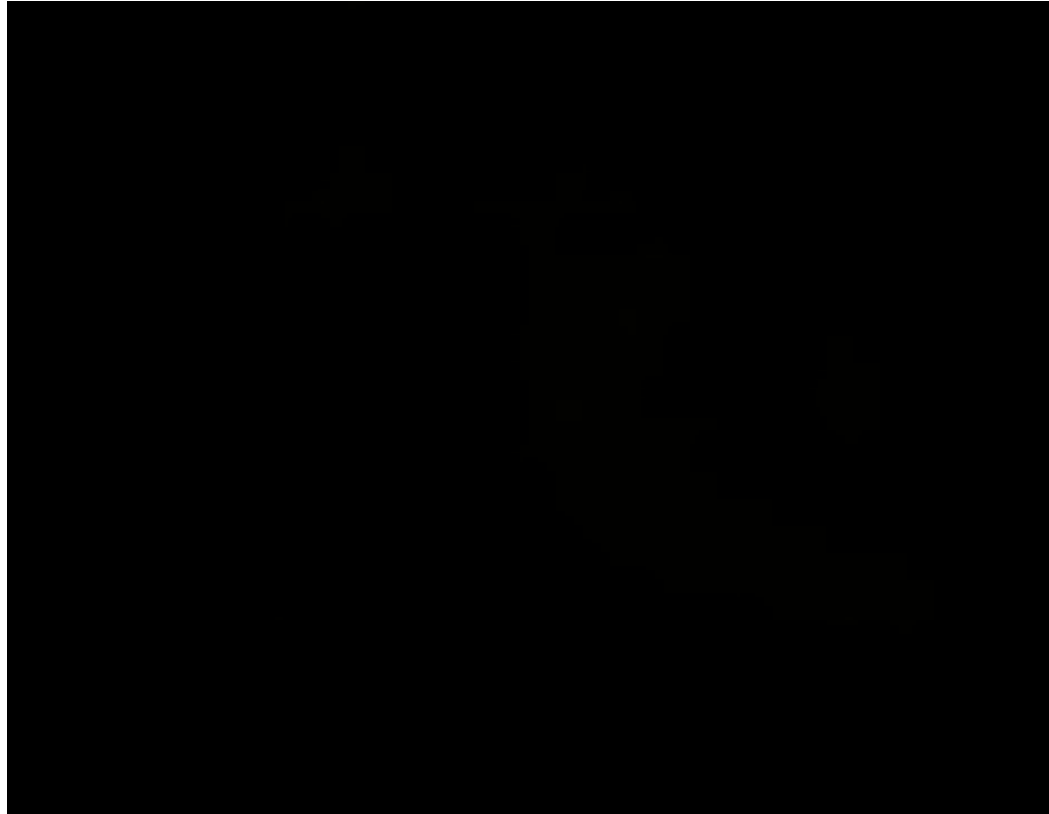






M. Kibner

# Removal of mesh - pudendal nerve





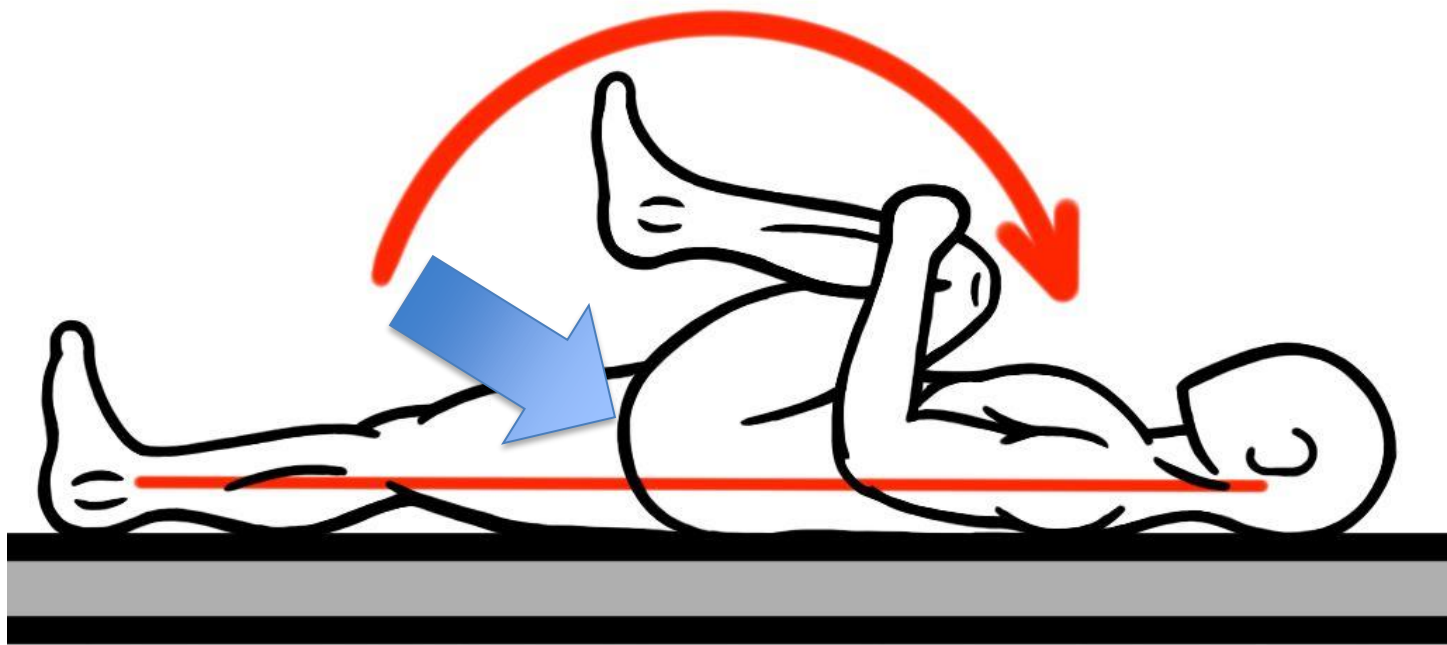
# TG PN neurolysis

## (Phoenix modification)

- ❖ Reattachment of sacrotuberous ligament
  - Cadaveric gracilis tendon graft
  - Without the graft – Z plasty
- ❖ Use of On-Q pain pump postoperatively (2 weeks)
- ❖ Amniofix nerve protector
- ❖ Wound vac on closed skin

# Postoperative care

- ❖ Avoid activities causing pain
  - No prolonged sitting
  - No squatting
- ❖ Continue physical therapy – 6 weeks after surgery
- ❖ Continue medications
- ❖ Some patients will benefit from additional injections of Botulinum toxin A or nerve blocks or On-Q pain pump



## OUTCOMES



**"Do you deliver?"**

# Outcomes (Nantes)

- ❖ First improvement in pain 4 months
- ❖ Maximum improvement in pain 18 months
- ❖ Results worse if neuralgia > 10 years

# Outcomes 2009-2012

## Do and Redo surgery combined

100 patients – 8 lost to follow up

❖ Cured	– 13/91	(14%)	}	63%
❖ Better	– 45/91	(49%)		
❖ Same	– 28/91	(31%)	}	37%
❖ Worse	– 6/91	(6%)		

# Outcomes of repeat surgery

- ❖ 10 patients, 1 lost to f/u
- ❖ Mean follow-up 23 months
- ❖ 8/9 global improvement
- ❖ 2 patients pain free
- ❖ VAS decrease from 7.2 to 4.0 ( $p=0.02$ )
- ❖ Improvement in sitting time in 8 patients from 5 minutes to 45 minutes ( $p=0.08$ )
- ❖ No worsening of symptoms
- ❖ Correlation between global improvement and comfortable sitting time  $R=0.86$



THE JOURNAL OF  
MINIMALLY INVASIVE  
GYNECOLOGY

## Original Article

### Repeat Operation for Treatment of Persistent Pudendal Nerve Entrapment After Pudendal Neurolysis

Michael Hibner, MD, PhD, Mario E. Castellanos, MD\*, David Drachman, PhD, and James Balducci, MD, MBA

*From the Department of Obstetrics and Gynecology (Drs. Hibner, Castellanos, and Balducci), St. Joseph's Hospital and Medical Center, Creighton University School of Medicine, Phoenix Campus, Phoenix, Arizona, and Maricopa Integrated Health System (Dr. Drachman), Phoenix, Arizona.*

# Outcomes 2009-2012

## Do and Redo surgery combined

### ❖ Patients who got better

- Had isolated posterior (rectal and/or perineal) pain
- Have pain medial to ischial tuberosity
- Had nerve wrap

### ❖ Patients who did not get better

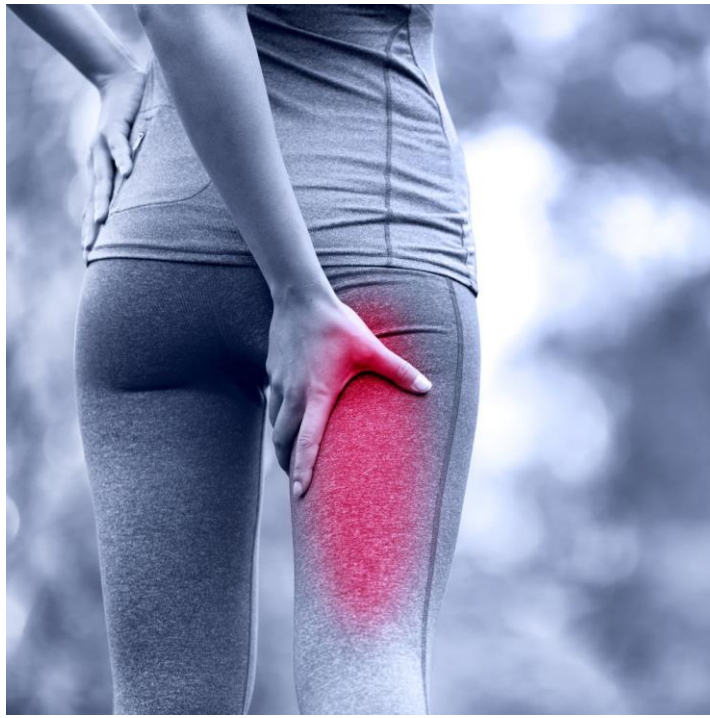
- Had generalized pudendal pain
- Had anterior (clitoral) pain
- Had symptoms of CRPS



# Outcomes/levels of evidence

- ❖ Roger Robert 2005 randomized trial (level I)
- ❖ 32 patients randomized to surgery vs. medical treatment
- ❖ 3 months 50% improved in surgery group vs. 6.2%
- ❖ 12 months 71.4% vs. 13.3%

**On average 2/3 of  
patients benefit from  
pudendal neurolysis**



**IF SURGERY FAILS**

**Pain improvement  
may take up to 24  
months after surgery**

# Why does surgery fail?

- ❖ Wrong diagnosis
- ❖ Incomplete decompression
- ❖ Nerve too damaged to recover
- ❖ Different pain after surgery
  - Muscle spasm
  - Central pain
- ❖ Re-scarring of the nerve

# If surgery fails

## ❖ Muscle spasm/pain

- Continued physical therapy + Botulinum toxin A injections

## ❖ Central pain

- Ketamine infusion
- Nerve blocks
- CT placed On-Q pain pump

## ❖ Continued/recurrent nerve compression

- Repeat surgery





**THE END**