



013IC - 10 Must-Knows for Pelvic Pain - To Always Do and Never Miss

Friday, May 15

Faculty

Elise J. B. De, MD

Kenneth M. Peters, MD

Sijo J. Parekattil, MD

Brian M. Inouye, MD

Jennifer Pollard

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10 Must-Knows for Pelvic Pain: 5 to Always Do 5 to Never Miss

2 hour Course
35 min Q and A

013 IC
May 15, 2026



Course Schedule – 2 Hours		
10 min	1 - Introduction of Speakers - Stated assumptions of audience knowledge	Elise De
15 min	2 - Always Do – Identify HTPFD Never Miss – Pudendal neuralgia	Ken Peters
15 min	3 - Always Do – Look beyond IC Never Miss – Sacral pathology	Elise De
15 min	4 - Always Do – ID bladder centric pain pre- cystectomy Never Miss – Pyocystis	Brian Inouye
15 min	Discussion, Q and A, Audience Cases	Audience and Faculty
10 min	5 - Always do – Use targeted therapies prior to excision Never miss - Upper tract cause of scrotal content pain	Sijo Parekattil
15 min	6 - Always Do – Examine the vulva Never Miss – Endometriosis	Jennifer Pollard
20 min	Facilitated Discussion, Q and A, Audience Cases	Audience and Faculty
5 min	7 - Tools for Practice	Elise De

Elise De MD

Always Do – Look Beyond IC
Never Miss – Sacral Pathology

Professor of Urology, Ob Gyn, Neurology
Medical Director
Multidisciplinary Pelvic Health
Albany Medical Center

www.facingpelvicpain.org
YouTube @facingpelvicpain



Ken Peters, MD

Always Do – Identify HTPFD
Never Miss – Pudendal Neuralgia

Corewell Health

Professor and Chairman of
Urology,
Oakland University William
Beaumont School of Medicine,
Chief of Urology, Beaumont Health
Royal Oak, Michigan

Disclosures:

Thermaquil, Inc: Consultant
Urovant: Consultant
Collamedix: Consultant
Iota Bioscience: Consultant
Coloplast: Consultant
Juro Sciences Inc: Consultant
Amber Therapeutics: Consultant
Johnson & Johnson: Consultant



Brian Inouye MD

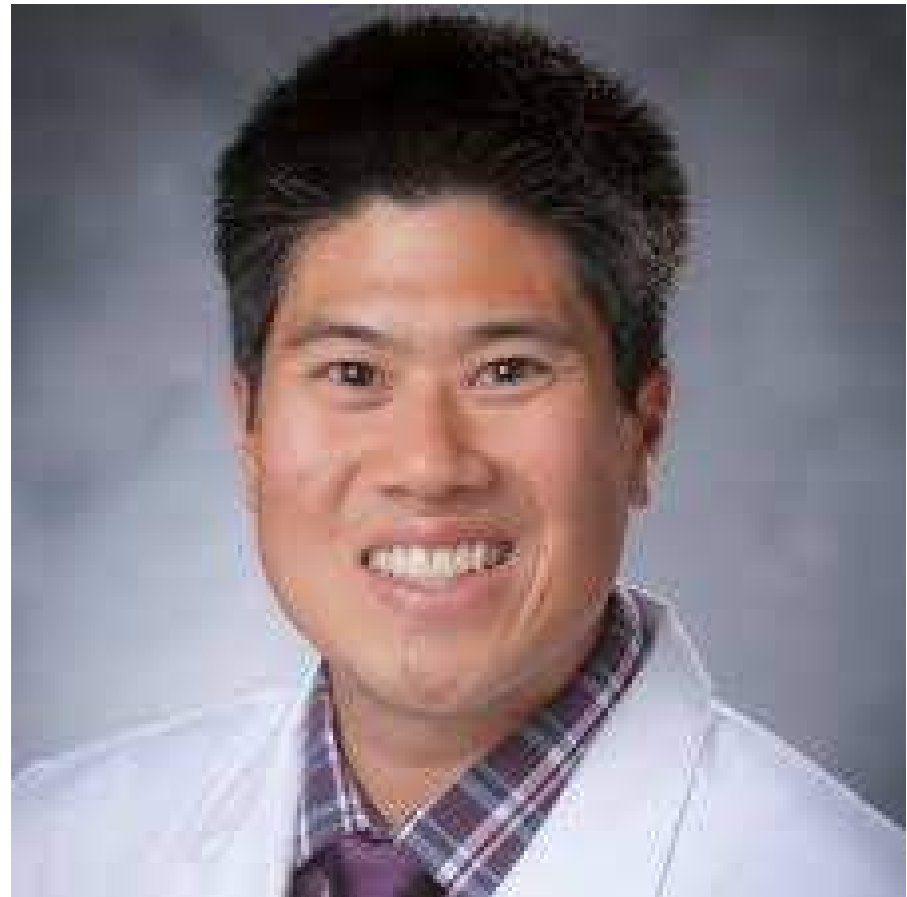
Always Do – Identify bladder-centric
pain pre- cystectomy
Never Miss – Pyocystis

Chair Young GURS Committee
Assistant Professor Urology
Assistant Program Director

Albany Medical Center, Albany
New York

@BrianInouyeMD

Disclosures: Consultant for
Laborie Optolume



Sijo Parekattil MD

Always do – Use targeted
therapies prior to excision
Never miss - Upper tract cause
of scrotal content pain

**Director, Avant Concierge
Urology, Winter Garden, FL, USA**

www.avanturol.com

@Nuttdoc

Disclosures: None



Jennifer Pollard, M.D.

Always Do – Examine the vulva
Never Miss – Endometriosis

Assistant Professor
Department of
Obstetrics and Gynecology
MIS, Sexual
Pain and Health

Disclosures: None





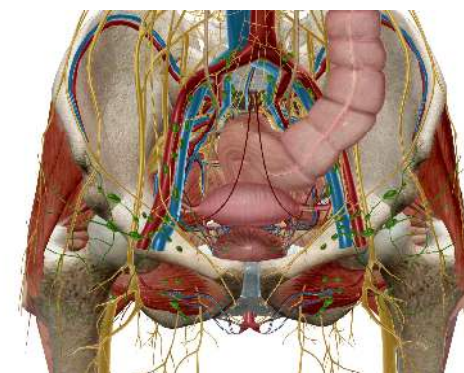
Treatment of Pelvic Pain depends on the:

Causes of Pain in Pelvis and Reasons for Pelvic Pain

LOCATION of PELVIC PAIN SYMPTOMS	POSSIBLE EXPLANATIONS of CHRONIC PELVIC PAIN SYNDROME
Vulvar pain Vulva and pelvic burning, burning in pelvic area	Infection Exposures (irritants) Vulvar atrophy (low estrogen) Low testosterone (can be caused by external hormones) Dermatologic conditions (e.g., lichen sclerosis) Neuropathy
Introital pain Entrance to vagina	Low testosterone Friction from sexual activity or clothing
Urethral pain Pain urinating	Vulvovaginal atrophy Urethral caruncle Friction Tight external sphincter muscle or stricture (turbulence) Skene's gland Stone at ureterovesical junction or urethra diverticulum Tumor Infection (<u>ureaplasma</u> /mycoplasma) or sexually transmitted infection Recurrent urinary tract infections
Pelvic floor muscles Heavy feeling in pelvic area, pelvic ache, pelvic pain from sitting, pelvic headache	Dysfunctional voiding Overactivity of muscles from pelvic strain, pelvic exercises or the <u>kegel</u> exercise
Gynecological pain Causes of pelvic pain in women, pain in pelvis female, symptoms of pelvic infection, sore pelvic area, pelvic discomfort, sore pelvis	Endometriosis symptoms (cramps in pelvis, pain in pelvis before period, pain in pelvis after period, extreme pelvic pain) Endometritis Adhesions in pelvis Uterine fibroids Ovarian venous abnormality Ovarian cysts, torsion, or other growths Ectopic pregnancy Sexually transmitted infection, inflammation in pelvis
Male organ pain	Prostatitis symptoms or epididymitis Testis mass, torsion, or nerve pain

Prostate pain, testis pain, groin pain, scrotum pain, pelvis pain men, pain in pelvis male	Ejaculatory duct or vas deferens obstruction <u>Psycronic's</u> Disease Sexually transmitted infection (STI, STD) Pelvic floor muscles, especially when prostatitis treatment has not been successful
Bladder pain	Interstitial cystitis Dietary triggers Bladder outlet obstruction
Gastrointestinal Pain Painful bowel movement, stomach cramps, blood in stool, cramps, bloating	Pelvic floor muscles: <u>levator ani</u> syndrome Proctalgia fugax / chronic proctalgia Unspecified functional anorectal pain Constipation –right pelvic pain, lower left side pelvic pain Anal Fissure Hemorrhoids Pruritis ani Anal cancer Paget's disease Warts Pelvic tumor Diverticulitis Appendicitis Adhesions in pelvis Hernia – pelvic pain sneezing Inflammatory bowel disease Irritable bowel syndrome – gas pain in pelvis
Vascular pain in lower pelvis Pelvis pain worse with standing	Pelvic venous disorder, pelvic venous congestion syndrome
Bone pain, Joint Pain Pelvic girdle pain, fractured pelvis symptoms, pelvic bone pain, pubic symphysis pain, pain in hips, pain in the pubic area, pelvic pain running	Back, knee, foot, or hip problem Injury to nerves, bones, ligaments, or tendons Inflammation of bone (osteitis or osteomyelitis) Muscle deficit (myopathy)
Nerve pain Burning pain in pelvis, burning sensation in pelvic area, pain that radiates down one leg, sharp pains in pelvic area	Upper motor neuron syndrome (upper spine/brain nerves) Spinal stenosis Herniated disc Multiple sclerosis Stroke Cerebral palsy

	Lower motor neuron syndromes (lower spinal cord) Cauda equina syndrome Tethered cord syndrome <u>Tarlov's</u> Cyst Sacral plexus Peripheral nerve problem Pudendal neuropathy, pudendal neuralgia, or other nerve entrapment Peripheral neuropathy or neuroinflammation
Psychological	Loss of health Depression Anxiety History of sexual abuse/assault, PTSD Poor emotional coping/communication Personality disorders Couple distress
All-over pain Pain all over the body, pain everywhere, constant pain	Fibromyalgia Small fiber polyneuropathy Diabetic neuropathy Central sensitization Neuroinflammatory disease (e.g. Lyme disease) Rheumatologic disease Vasculitis



Differential Diagnosis of Pelvic Pain
www.facingpelvicpain.org

History Predicts Correct Diagnosis 70% of the time



The Lancet

Volume 250, Issue 6470, 30 August 1997, Pages 305-307



ORIGINAL ARTICLES

TWO ESSAYS ON THE PRACTICE OF MEDICINE

Robert Platt M.D. Sheff., F.R.C.P. (PROFESSOR OF MEDICINE, MANCHESTER UNIVERSITY)

Contributions of the History, Physical Examination, and Laboratory Investigation in Making Medical Diagnoses

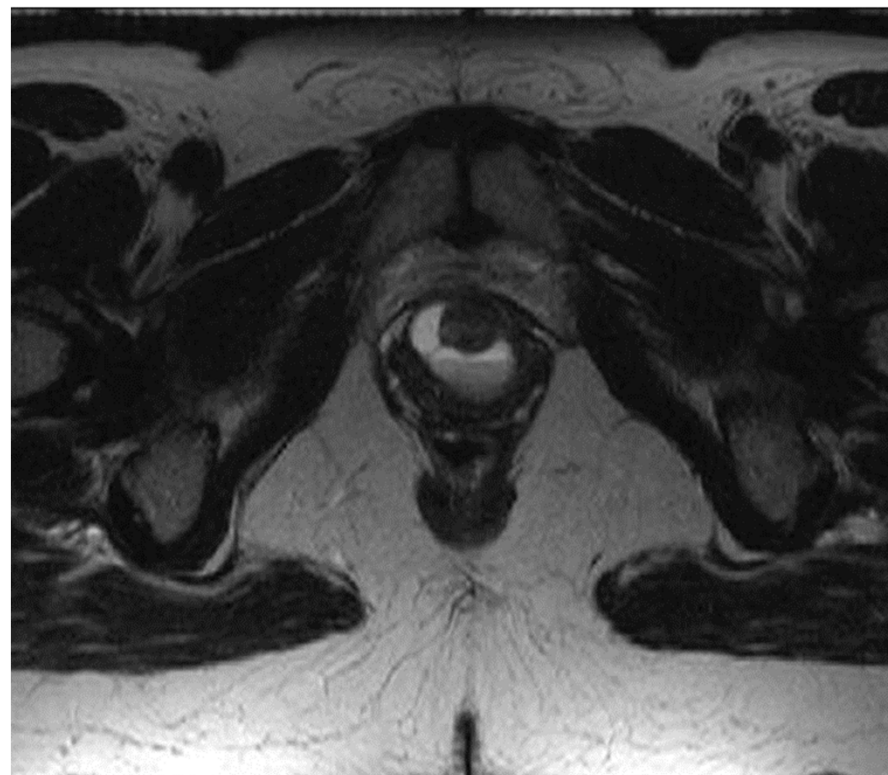
MICHAEL C. PETERSON, MD, Morgantown, West Virginia; JOHN H. HOLBROOK, MD; DE VON HALES, MD; N. LEE SMITH, MD; and LARRY V. STAKER, MD, Salt Lake City, Utah

We report an attempt to quantitate the relative contributions of the history, physical examination, and laboratory investigation in making medical diagnoses. In this prospective study of 80 medical outpatients with new or previously undiagnosed conditions, internists were asked to list their differential diagnoses and to estimate their confidence in each diagnostic possibility after the history, after the physical examination, and after the laboratory investigation. In 61 patients (76%), the history led to the final diagnosis. The physical examination led to the diagnosis in 10 patients (12%), and the laboratory investigation led to the diagnosis in 9 patients (11%). The internists' confidence in the correct diagnosis increased from 7.1 on a scale of 1 to 10 after the history to 8.2 after the physical examination and 9.3 after the laboratory investigation. These data support the concept that most diagnoses are made from the medical history. The results of physical examination and the laboratory investigation led to fewer diagnoses, but they were instrumental in excluding certain diagnostic possibilities and in increasing the physicians' confidence in their diagnoses.

(Peterson MC, Holbrook JH, Hales D, Smith NL, Staker LV: Contributions of the history, physical examination, and laboratory investigation in making medical diagnoses. West J Med 1992 Feb; 156:163-165)



“Tell me the story of why you are here today”



Review Records – Patient-Input Data and AI Help a Lot

TREATMENTS AND OUTCOME:

- SI joint injections and ablations with temporary improvement up to one month
- Lumbar medial branch blocks and radiofrequency ablation without durable benefit
- Piriformis muscle release without benefit
- Spinal cord stimulator trial with partial coverage of back pain only
- Long term opioid therapy in past with good effect, discontinued
- Vaginal estrogen and estradiol patches without benefit for dyspareunia or urinary symptoms

SELECT MEDICATIONS (PRIOR AND CURRENT):

- Vibegron 75 mg daily initiated
- Estradiol vaginal therapy previously, discontinued
- Duloxetine for chronic pain and mood
- Baclofen
- Alprazolam
- Movantik
- Trazodone
- Rosuvastatin
- Varenicline
- Ondansetron

LABS / IMAGING / TESTING / RESULTS:

- Urine cultures: 01/19/2023 negative; 11/21/2023 positive for E coli >100K; 02/07/2024 negative; 02/10/2025 negative; 11/04/2025 NuSwab negative
- Ureaplasma and mycoplasma negative 02/10/2025
- MRI pelvis 05/15/2025 showing right sided Tarlov cyst; otherwise symmetric lower spine
- MRI pelvis 5/2024 reported muscle strain and edema
- MRI lumbar spine 05/15/2026 read as within normal limits with multiple Tarlov cysts noted
- CT lumbar spine 06/2025 showing L5-S1 postsurgical changes and spondylolisthesis
- Labs 02/25/2026 notable for hyperlipidemia; otherwise normal liver function and CK

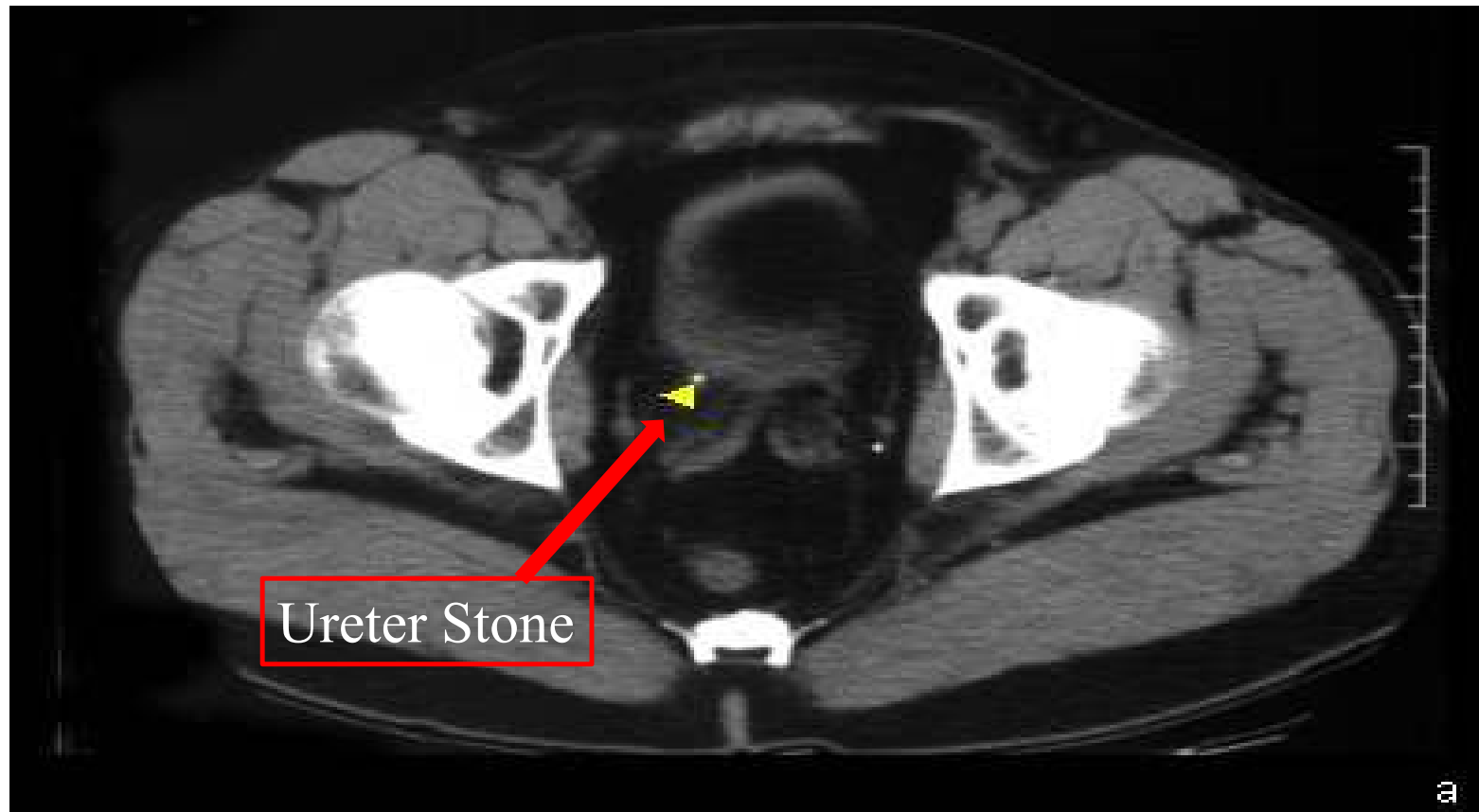
Review Images

5/15/2023 MRI Lumbar Spine - read as WNL, but ++ Tarlov Cysts.



Her chronic pain history is significant for lumbar spondylolisthesis and prior lumbar fusion at L4-L5-S1 at ages 15 and 28. Pain worsened following a motor vehicle accident in May 2022, at which time symptoms began radiating down both legs, worse on the right. She has undergone SI joint injections, facet and caudal epidural injections, lumbar medial branch blocks and radiofrequency ablation, and piriformis muscle release, all with limited or no sustained benefit. A spinal cord stimulator trial using a Boston Scientific system in May 2023 improved back pain but did not address buttock or leg pain. She was told she has ischial tuberosity bursitis. Her primary limiting symptom at present is bilateral buttock pain, preventing sitting on hard surfaces, accompanied by numbness and weakness in the lower extremities. She previously used oxycodone for approximately 15 years with good effect; later opioid trials and fentanyl patch were poorly tolerated and ineffective. She is currently disabled due to pain and functional limitations.

Acute Onset Lateralizing Pain



Trauma Informed Care – 600 Pt Intake

“Is there a history of trauma/abuse you would like the team to be aware of?”

Measure	Self-Reported Trauma History (mean (N=54))	No Self-Reported Trauma History (mean (N=546))	p-value
Pelvic pain	71%	42%	<0.001
Autonomic sx score	9.91 ± 5.4	4.0 ± 4.4	<0.001
Neurological ROS	4.4 ± 2.9	2.0 ± 2.4	<0.001
PHQ-4	2.2 ± 2.1	1.0 ± 1.6	<0.001
AUA-QOL	4.17 ± 1.85	3.21 ± 2.19	<0.001
Sexual satisfaction	3.41 (N=49)	2.90 (N=354)	0.020
Orgasm intensity	2.79 (N=28)	2.49 (N=250)	0.260

"Let me know what I should expect to feel, tell me when you're about to do something and give me the chance to be calm and check in with me on how it feels. Slow and gentle."

"Ideal preferred conditions: meet doctor while clothed prior to exam, provider describes all components of exam in advance, provider asks me before moving to next step of exam/procedure, option to stop if I am in too much pain, no other staff should take over the exam without my consent, plenty of lubricant, and very slow insertion/removal/movement."

"Please no one else in the room, and if there must be other people in the room, I'd prefer they either be [the same gender] or have their back turned to me please."

"I expect doctors to be present when in an appointment with me. If I am asked a question, I expect the doctor to be ... empathetic to the answer which may illicit tears."

Signs and Symptoms of a Traumatic Response

Rockville MD: SAMHSA 2014

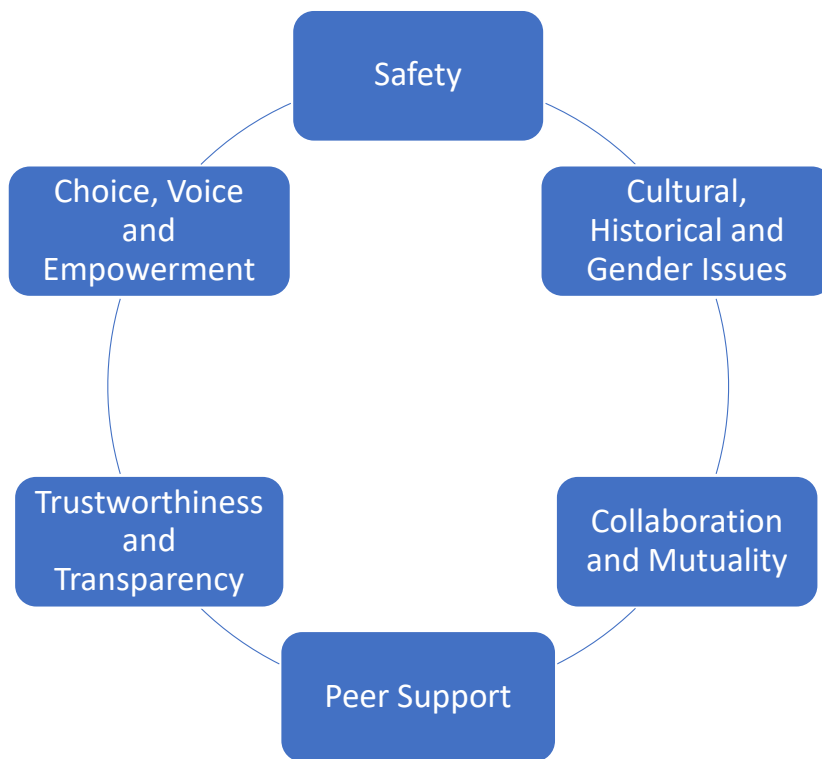
- Agitation
- Irritability, emotional swings
- Anxiety, depression, fear
- Outbursts of anger
- Easily startled by noise or touch
- Sudden sweating and/or heart palpitations
- Flashbacks – re-experiencing the trauma
- Difficulty concentrating
- Difficulty trusting
- Self-blame, guilt or shame
- Feelings of disconnection or numb



Courtesy Nelly Faghani BScPT, MCISc

Principles of Trauma-Informed Approach

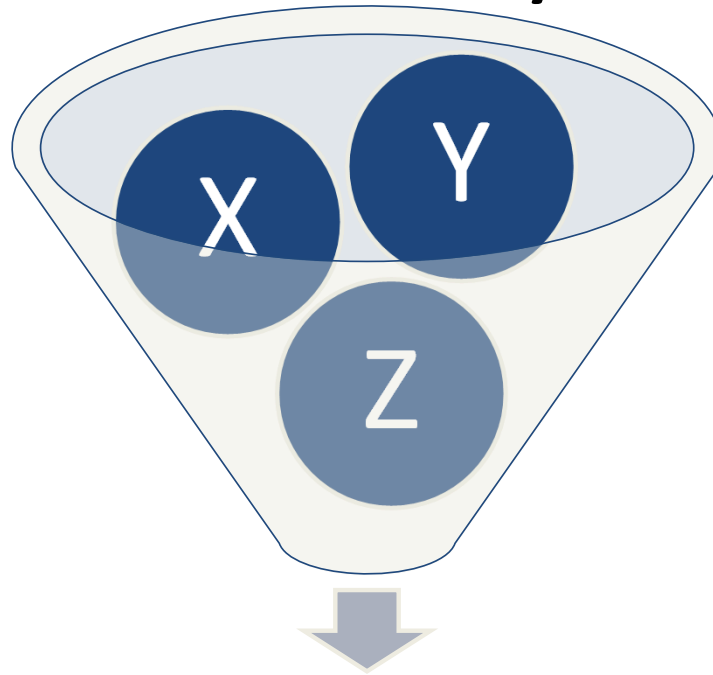
Substance Abuse and Mental Health Services Administration (SAMHSA) Trauma and Justice Strategies 2014



- **Create safe space**
 - Build therapeutic alliance and trust
 - Validate their experience
 - Non nociceptive approach (don't be the threat)
- **Choice and control**
 - Get consent before you start
 - Remind patients they can withdraw consent
 - Provide alternative treatment options
- **Be careful with your language and responses**
 - Be inclusive (cultural, historical and gender issue)
 - Be aware of your body language and fascial expression
 - Be aware of the nocebo effect

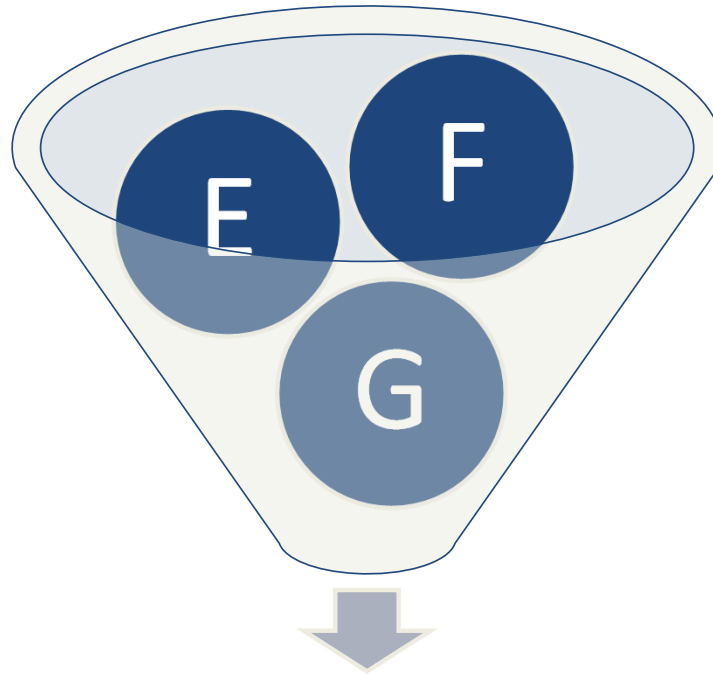
Courtesy Nelly Faghani BScPT, MCISc

Case – Always Do



Always ABC

Case – Never Miss



Never LMNOP

10 MUST-KNOWS FOR PELVIC PAIN- TO ALWAYS DO: EVALUATE FOR PELVIC FLOOR DYSFUNCTION AND NEVER MISS: PUDENDAL NEURALGIA

Kenneth M. Peters, MD

Professor and Chair of Urology

Oakland University William Beaumont School of Medicine

Corewell Health William Beaumont University Hospital

DISCLOSURES

Thermaquil, Inc: Consultant

Purdue Pharma: Consultant

Paxos Medical: Consultant

Coloplast: Consultant

Amber Therapeutics: Consultant

Minze Health: Consultant

Juro Sciences: Consultant

Celldex Therapeutics: Consultant

Janssen Research and Development: Consultant

CHRONIC PELVIC PAIN



- 1 in 9 women have CPP
- Millions have been told they have IC
- Bladder often innocent bystander
- Pelvic floor dysfunction overlooked



- 10% of men suffer from CPP
- Most <50 yrs
- Told they have "prostatitis"
- Pelvic floor dysfunction overlooked

BACKGROUND

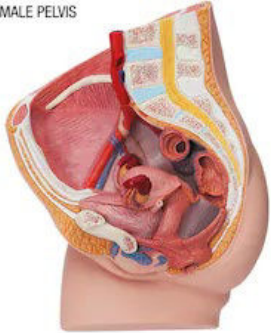
- Chronic pelvic pain difficult to manage
- Many have been labeled with “IC” or Chronic Prostatitis
- Bladder or Prostate directed therapy has poor outcomes
- Many patients with CPP suffer from Pelvic Floor Dysfunction
- Pudendal neuropathy has been identified as a culprit in the development of CPP
- Sexual dysfunction is common
- Early life trauma can be risk factor in men and women

ALWAYS DO: EVALUATE FOR PELVIC FLOOR DYSFUNCTION

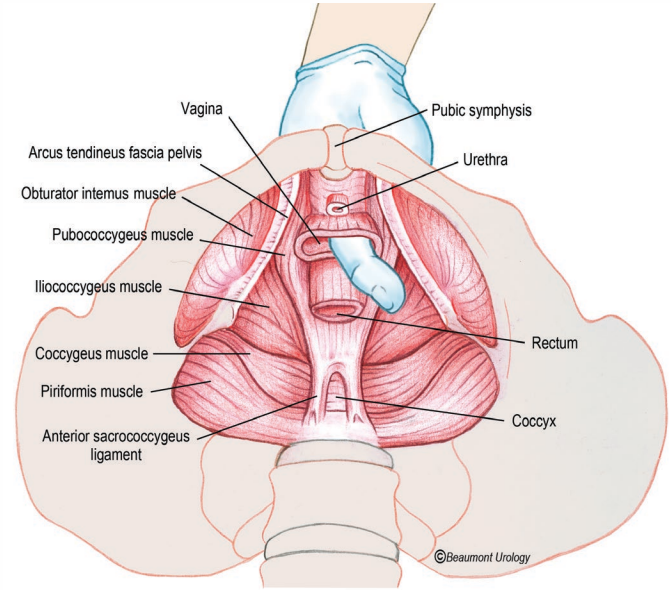
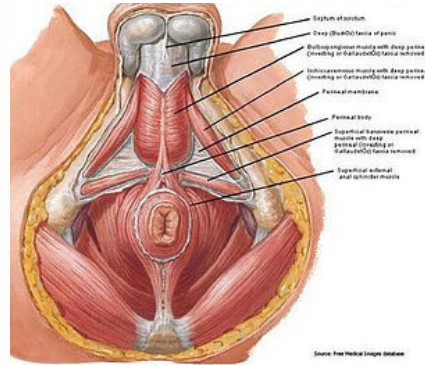
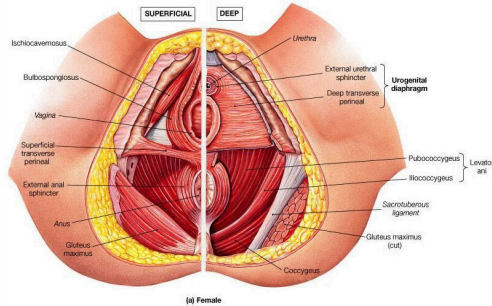
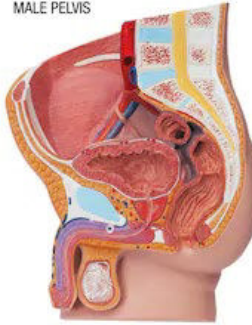


ANATOMY

FEMALE PELVIS



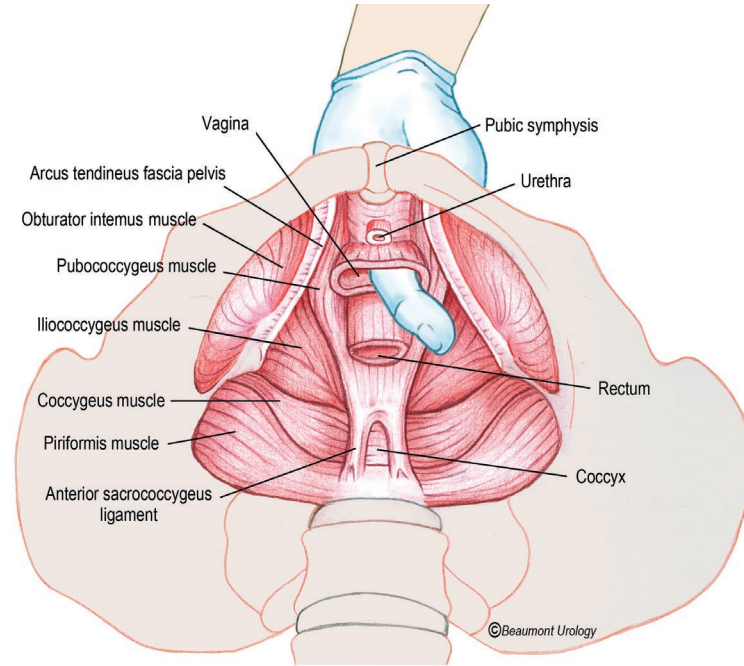
MALE PELVIS



Always Do a Physical Exam

IC & PELVIC FLOOR DYSFUNCTION

- Approximately 70%-90% of patients with IC have pelvic floor dysfunction¹
- Levator ani muscle myalgia can be a source of chronic pelvic pain.
- 1. Peters et al. Urology. 2007 Jul;70(1):16-8



EFFECT OF PELVIC FLOOR ON IC/PBS

Randomized Multicenter Pilot Trial Shows
Benefit of Manual Physical Therapies in
the Treatment of Chronic Pelvic Pain

MP FitzGerald,¹ RU Anderson,² CK Payne,² JPotts,³ KM
Peters,⁴ JQ Clemens,⁵ L Cen⁶, S Chuai⁶,
JR Landis⁶

J Urol. 2009 Aug;182(2):570-80. Epub 2009 Jun 17.

RESULTS

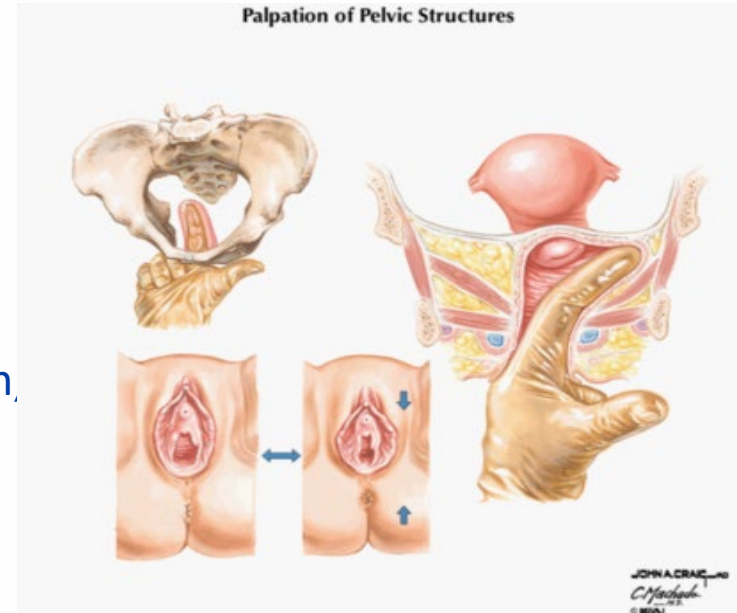
	GTM	MPT	Total
Number Randomized	24	23	47
<i>Total (p=0.03)</i>			
Responders	5 (21%)	13 (57%)	18 (38%)

Similar findings in f/u study of 81 women: 59% PT vs 26% massage

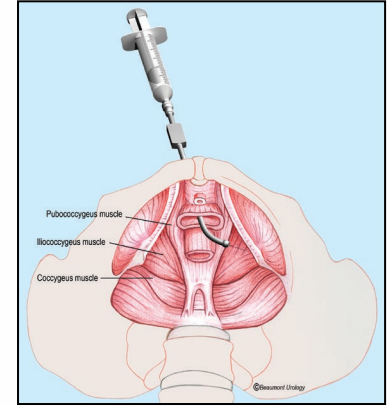
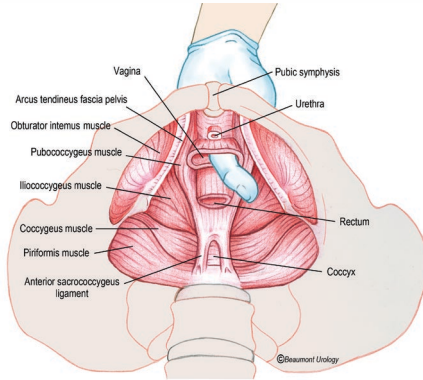
FitzGerald, et al J Urol. 2012 Jun;187(6):2113.

PHYSICAL THERAPY

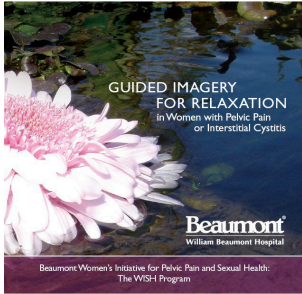
- Pelvic floor physical therapists are crucial
- Should be specially trained in pelvic floor dysfunction related to these symptoms.
- Involves internal and external therapy
- Biofeedback
- Very successful in improving symptoms pelvic pain, dyspareunia, urgency, frequency



PELVIC FLOOR DYSFUNCTION



INTEGRATIVE MEDICINE



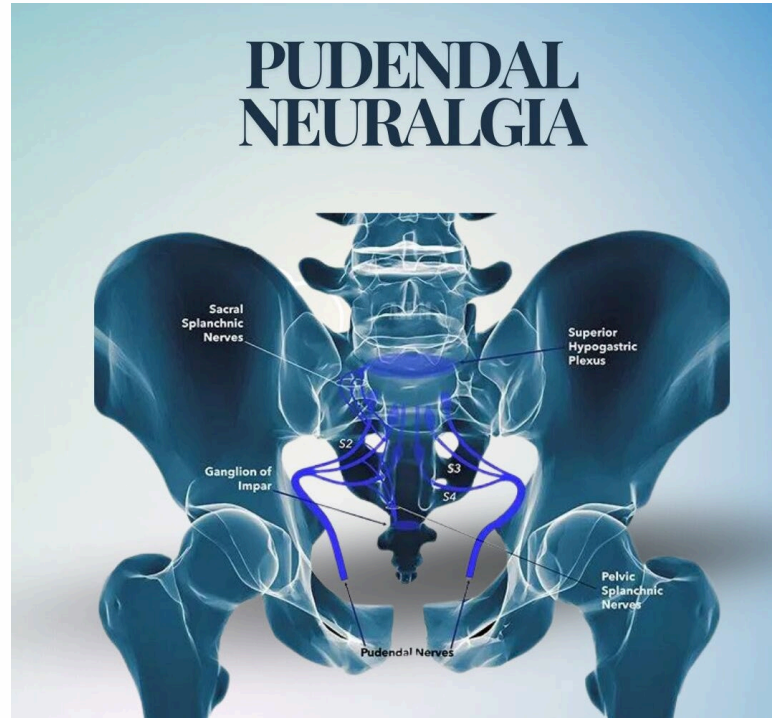
- Pain Psychology
- Guided Imagery
- Cognitive behavioral therapy
- Stress Reduction
- Increase water intake (dilute the urine)
- Dietary modifications
- Yoga/meditation
- Medical massage
- Acupuncture
- Reiki Therapy



Guided Imagery

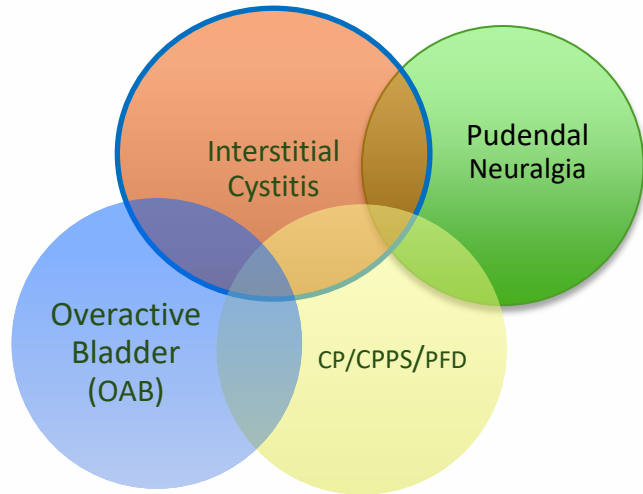
William Beaumont
University Hospital

DON'T MISS: PUDENDAL NEURALGIA



IC, OAB, PUDENDAL NEURALGIA, CPP/PFD

Key difference between OAB and IC is **PAIN**,
but pain does not equal IC!

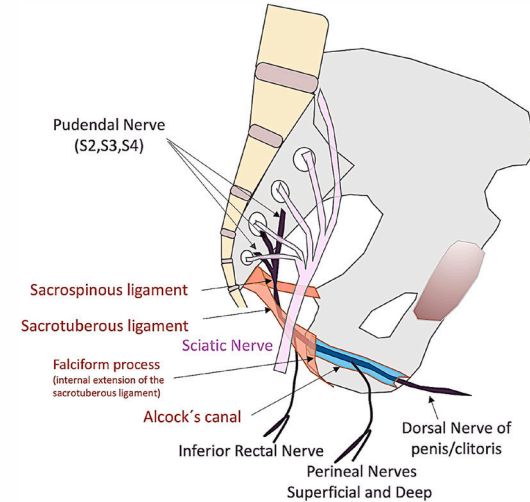
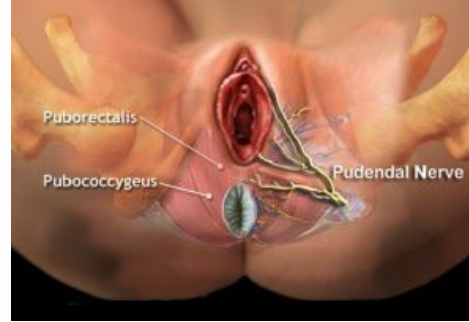


- They share some of the same symptoms
 - **Urgency**
 - **Frequency**
 - **Nocturia**
 - **Painful sex**
- **Pudendal neuralgia**
 - **Pain on sitting, relieved on standing, lying down, or sitting on a cutout cushion or toilet seat**
 - **Also, urinary symptoms**

PUDENDAL NEURALGIA

NANTES Criteria:

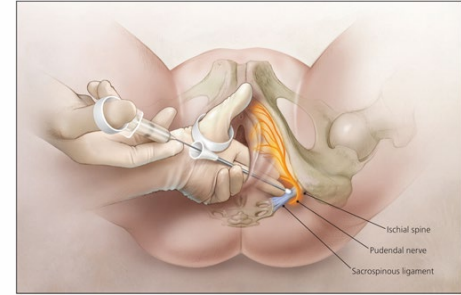
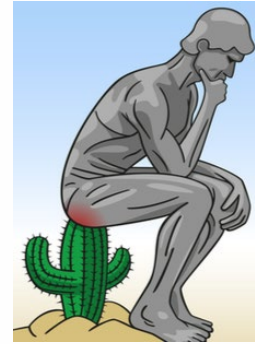
- (1) Pain in the anatomical territory of the pudendal nerve
- (2) Worsened by sitting.
- (3) The patient is not woken at night by the pain
- (4) No objective sensory loss on clinical examination.
- (5) Positive anesthetic



PUDENDAL NEURALGIA

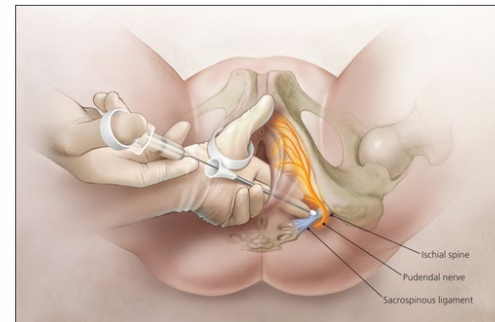
Pudendal Neuralgia must be in differential diagnosis of pelvic pain

- Is patient standing when you enter the room?
- Pain worse with sitting, gone during sleep
- Careful history regarding distribution and character
- Triggers? Bike riding, pelvic injury, childbirth, fall
- Sexual dysfunction, voiding and bowel dysfunction?
- Pelvic floor pain on exam?
- Vulvar pain, scrotal pain, perineal pain, rectal pain?
- Pain at ischial spine with palpation

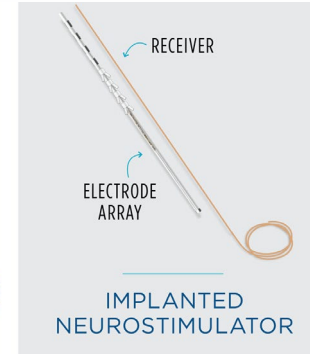
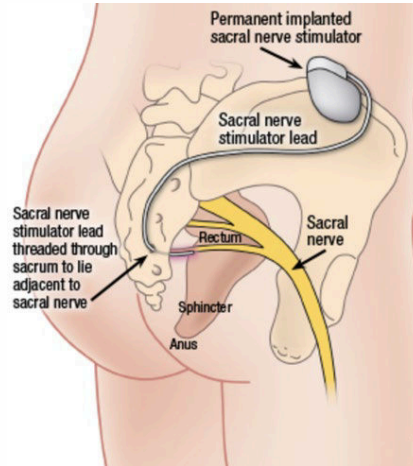
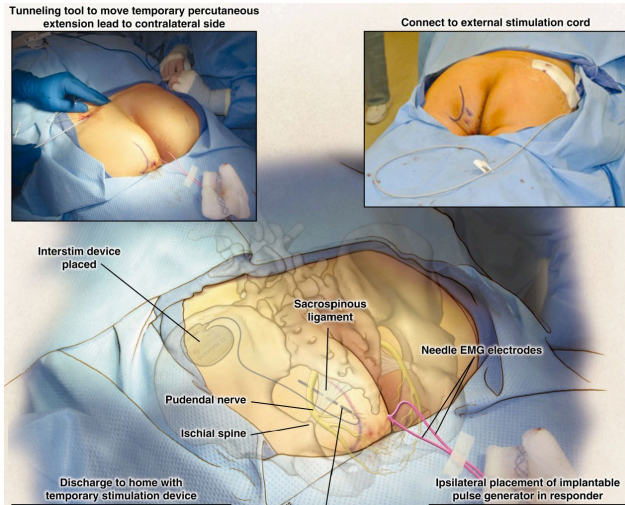


PUDENDAL NEURALGIA TREATMENTS

- Behavioral changes- pudendal pads, avoid biking, prolonged sitting, pelvic stretching, yoga, stress reduction....
- Physical therapy, shockwave therapy
- Diagnostic/Therapeutic Pudendal Nerve Blocks
- RFA of Pudendal Nerve
- Pudendal Neuromodulation
- Pudendal nerve entrapment surgery
(European Urology 47 (2005) 403–408)



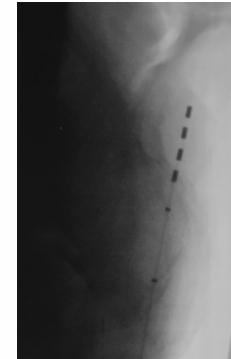
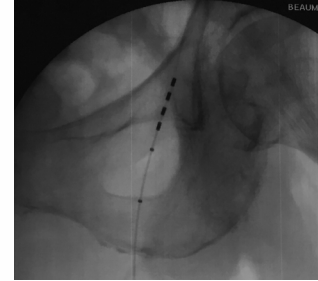
NEUROMODULATION



NEUROMODULATION

Pudendal Neuromodulation

- Stimulation of the 3rd sacral nerve has been shown to be effective in treating voiding/bowel dysfunction and off-label use for pain
- The pudendal nerve is a distal branch of S2, S3, and S4
- The potential benefit of pudendal nerve stimulation is increased afferent stimulation through the sacral nerve roots
- Pudendal neuropathy is a known cause of severe pelvic pain, voiding and bowel dysfunction and sexual dysfunction
- Beaumont Urology Developed Pudendal Neuromodulation

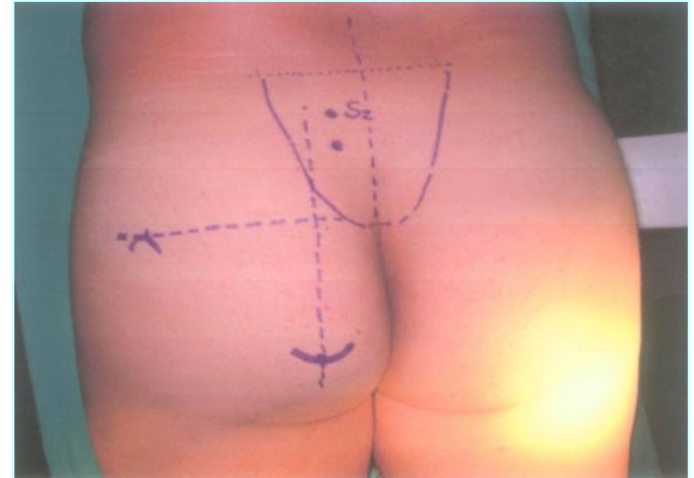


NEUROMODULATION

Locating the Pudendal Nerve



Peters KM et al. *Neurourol Urodyn*. 2005;24:643-647.



Spinelli M, et al. *Neurourol Urodyn*. 2005;24(4):305-9.

NEUROMODULATION

Sacral vs Pudendal Stimulation

- 30 subjects with refractory voiding dysfunction
- 48 years (26-70)
- Pudendal or sacral nerve stimulation in a blinded-randomized fashion, each for 7 days
- Successful placement of sacral and pudendal leads in all subjects
- Time to lead placement
 - Sacral: 25.9 min
 - Pudendal: 23.7 min ($P=0.57$)

Peters KM et al. *Neurourol Urodyn.* 2005;24:643-647

Ishio-rectal Pudendal
Implant Video

SCAN QR CODE



NEUROMODULATION

SACRAL VS PUDENDAL NERVE STIMULATION

79% FOUND PUDENDAL BETTER THAN SACRAL
(90% OF SACRAL FAILURES RESPOND TO PUDENDAL)

GRA:

Markedly-worse, Moderately-worse, Mildly-worse, Same, Mildly-improved, Moderately-improved, Markedly-improved

Pudendal > Sacral

Pelvic pain (p=0.0024)

Frequency (p=0.007)

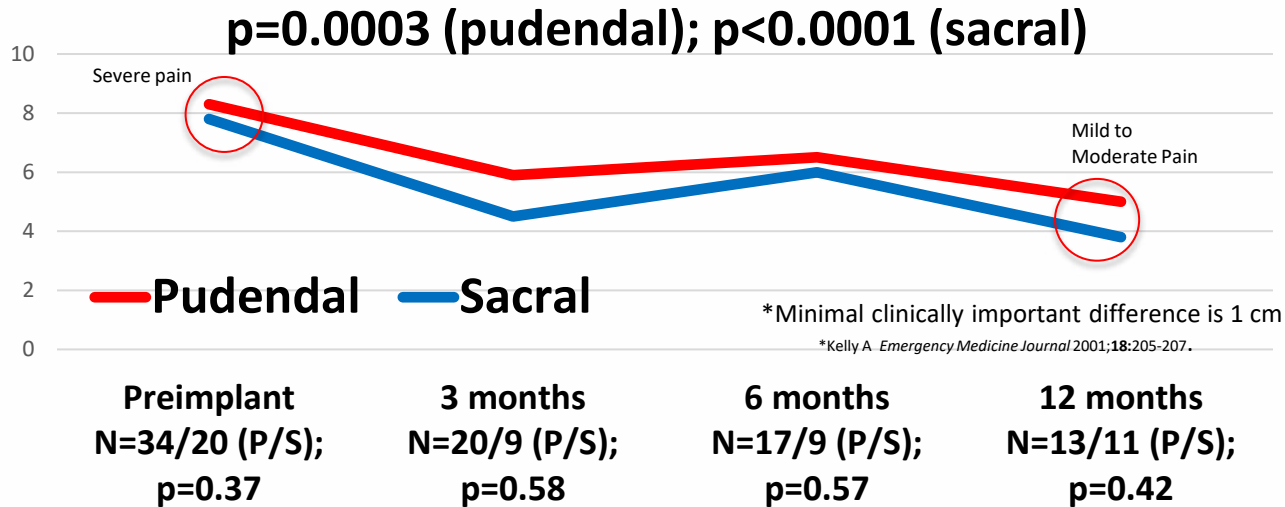
Urgency (p=0.005)

Bowel function (p=0.049)

Peters KM et al. *Neurourol Urodyn*. 2005;24:643-647

NEUROMODULATION

Change in Median Pelvic Pain Scores 10 cm VAS



Initial experience using a novel nerve stimulator for the management of pudendal neuralgia

Ly Hoang Roberts MD¹ | Annah Vollstedt MD¹ | Joshua Volin BS¹ |
Teresa McCartney BSN, RN² | Kenneth M. Peters MD¹

N=13

TABLE 3 Responses from follow up questionnaire administered via telephone call

Follow up questionnaire	
Overall, how have your symptoms changed since undergoing the StimWave® Device Implant?	N = 7
7 (markedly improved)	2
6 (moderately improved)	4
5 (slightly improved)	1
4 (no change)	0
3 (slightly worse)	0
2 (moderately worse)	0
1 (markedly worse)	0
Permanent lead setting at last follow up	
Pulse rate (Hz)	924.4 (779.5–1332.67)
Pulse width (ms)	105.7 (53.3–126.7)
Power (mA)	0.67 (0.5–1.25)

Trans-gluteal Pudendal
Implant Video
SCAN QR CODE

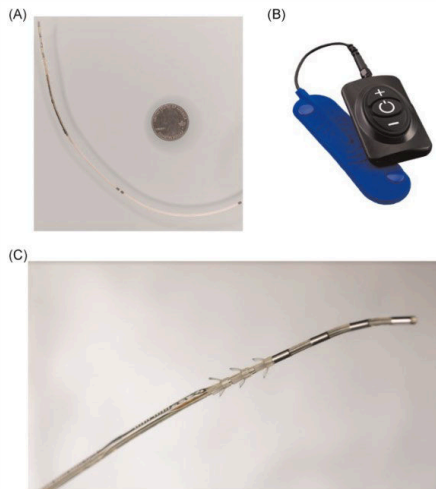


10/13 >50% improvement in pain

TABLE 2 Operative findings and reported patient symptoms after trial and permanent lead implantation at post-op visit

	Trial lead procedure	Permanent lead procedure	Follow up phone call
Intraoperative	n = 13	n = 9	n = 7
Procedure time (min)	54	57	N/A
Lead placement			
Unilateral	5	4	N/A
Bilateral	8	5	N/A
Complications	0	0	N/A
Postoperative			
Time from surgery to post-op visit/follow up phone call (days)	7.16 (range: 6–11)	26.56 (range: 6–83)	287 (range: 22–759)
Pain improvement			
100%	6	1	1
99%–80%	1	1	3
79%–70%	1	1	1
69%–50%	2	2	2
49%–1%	0	3	0
0%	3	1	0
Complications	0	4 did not tolerate (n = 1), lack of adequate response (n = 1), lead migration (n = 1), incorrect usage of equipment (n = 1)	5 Difficulty with external wearable antennae assembly (n = 2), lead migration (n = 2), broken wire (n = 1)

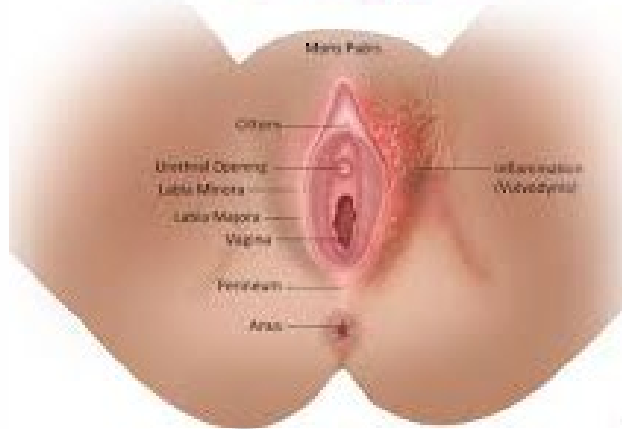
Note: Pain improvement at time of follow up phone call since permanent lead implantation.



NEUROMODULATION

OTHER POTENTIAL BENEFITS OF NEUROMODULATION

Vulvodynia

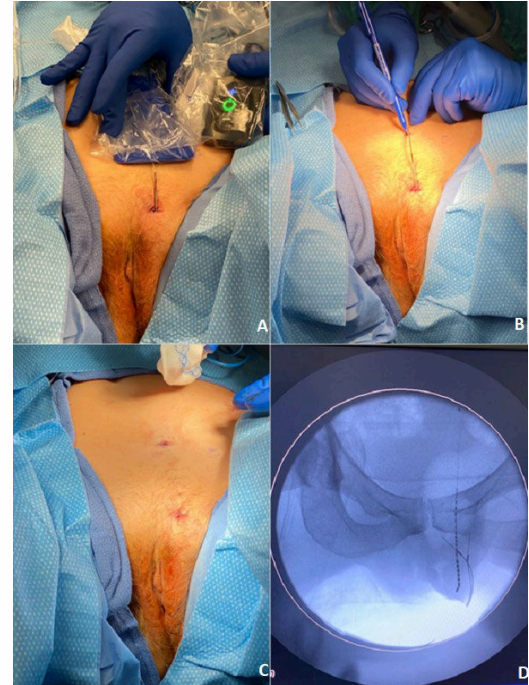
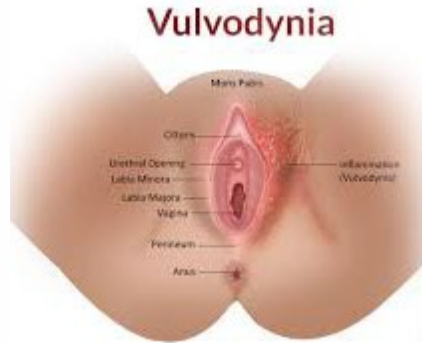


Post-Mesh Pain



NEUROMODULATION

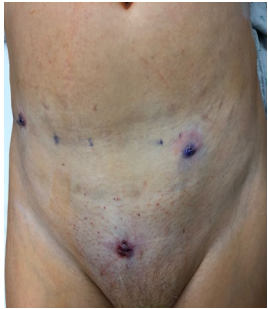
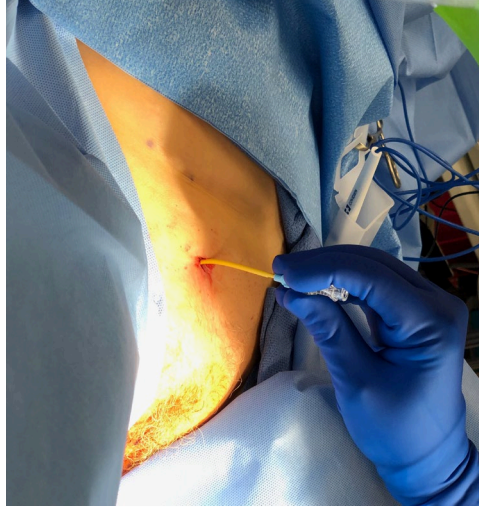
PERIPHERAL NERVE STIMULATION



Curonix PNS System

The Canadian Journal of Urology, 01 Feb 2022, 29(1):11032-11035

NEUROMODULATION



95% resolution of pain

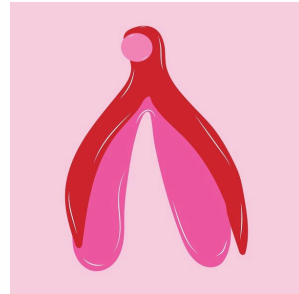
Urology, Volume 137, 2020, Pages 196-199

NEUROMODULATION

PERSISTENT GENITAL AROUSAL DISORDER

- Recently treated several woman with severe PGAD with pudendal stimulation
- Suffered for years, responded transiently to pudendal nerve blocks
- Chronically took multiple narcotics and antidepressants/day
- Remarkable improvement in symptoms were noted and were able to wean the majority off their medications

Definition: Persistent genital arousal disorder (PGAD), previously called **persistent sexual arousal** syndrome, is spontaneous, **persistent**, unwanted and uncontrollable **genital arousal** in the absence of **sexual** stimulation or **sexual** desire, and is typically not relieved by orgasm



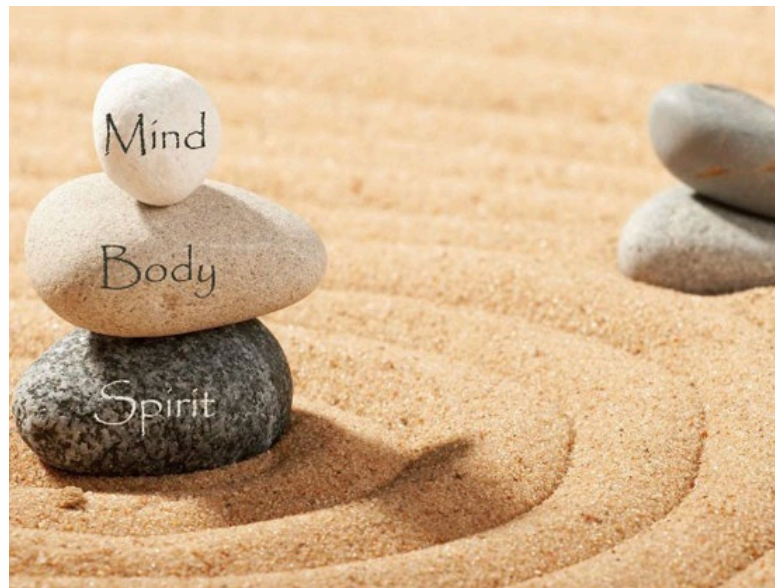
Pudendal Neuromodulation as a Treatment for Persistent Genital Arousal Disorder—A Case Series

Gaines, Natalie, MD^{*}; Odom, Brian D., BS[†]; Killinger, Kim A., MSN^{**}; Peters, Kenneth M., MD^{††}

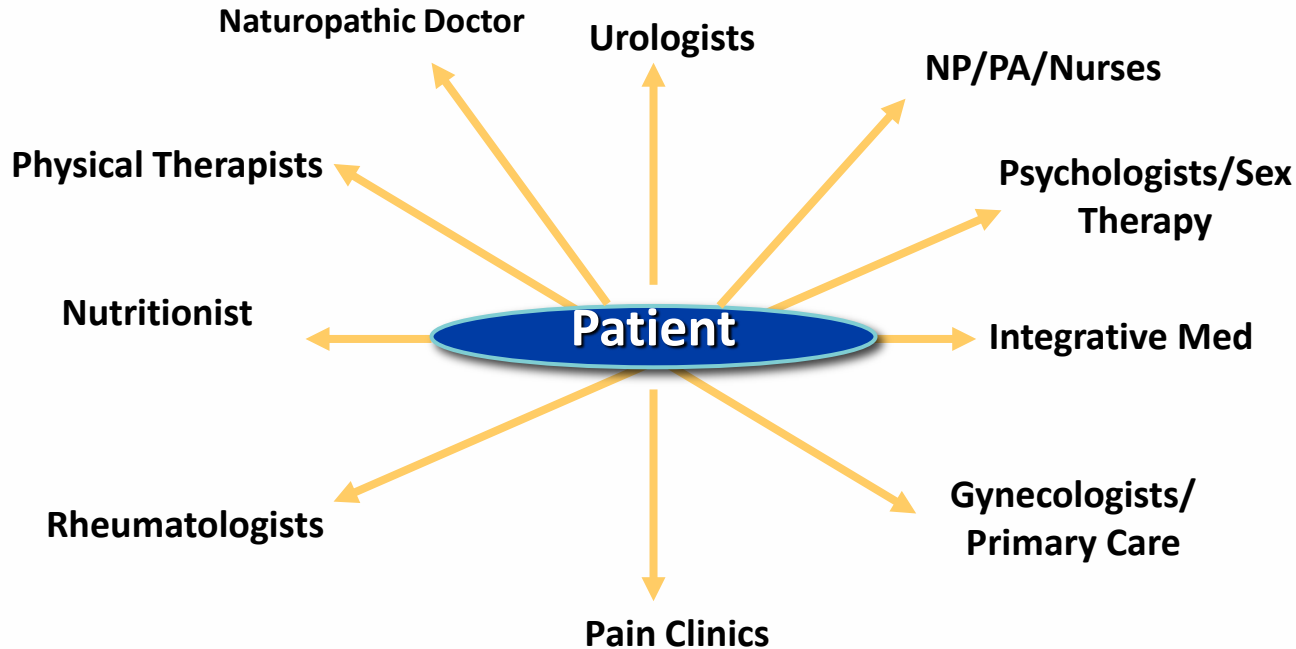
Female Pelvic Medicine & Reconstructive Surgery: [July/August 2018 - Volume 24 - Issue 4 - p e1–e5](#)

WORDS OF WISDOM

- Need to think beyond our specialties
- Must evaluate the whole patient
- Prioritize problems
- Life experiences may impact patient symptoms
- Triggers must be identified and managed
- Provide hope, education and support
- Start simple and advance therapy



A MULTIDISCIPLINARY TEAM APPROACH IS KEY TO SUCCESS



Thank You





Always Do – Look Beyond IC
Never Miss – Sacral Pathology

AUA Course 013 IC
Friday May 15, 2026
1:30 PM – 3:30 PM

Elise De MD
Professor of Urology, Ob/Gyn, Neurology
Medical Director
Multidisciplinary Pelvic Health
Albany Medical College



Disclosures

Twitter: @Dr_Elise_De
Instagram: elisede123
Facebook: [elise.b.de](https://www.facebook.com/elise.b.de)
Linked In: elise-de-8a535a180



CLINICAL RESEARCH: PI,
IRONWOOD
PHARMACEUTICALS



CONSULTANT: FLUME
CATHETERS, NIDDK DSMB
EPPIC2201



STOCK: ERYP, DOXIMITY



INNOVATION:
[WWW.RESTORATION-
MEDICINE.COM](http://WWW.RESTORATION-MEDICINE.COM)
PELVIC ANSWERS LLC

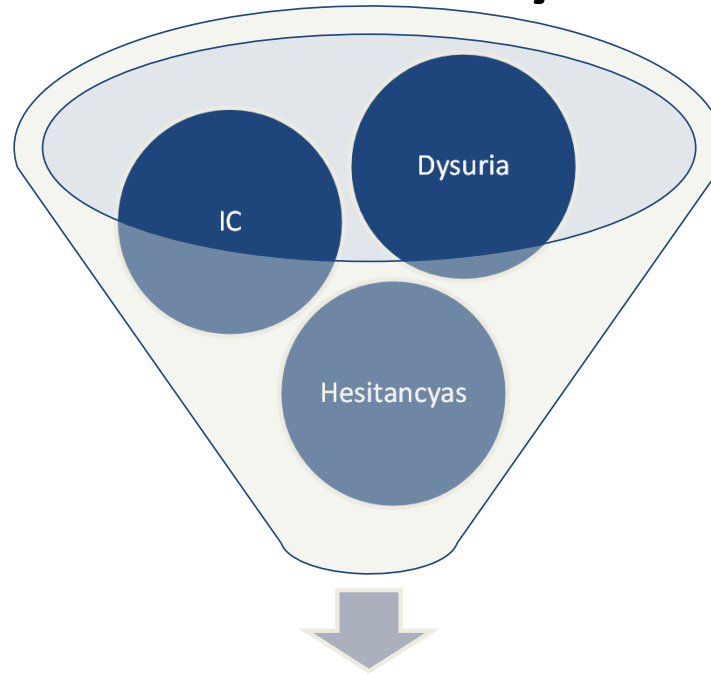


WEBSITE:
[WWW.FACINGPELVICPAIN.
ORG](http://WWW.FACINGPELVICPAIN.ORG)

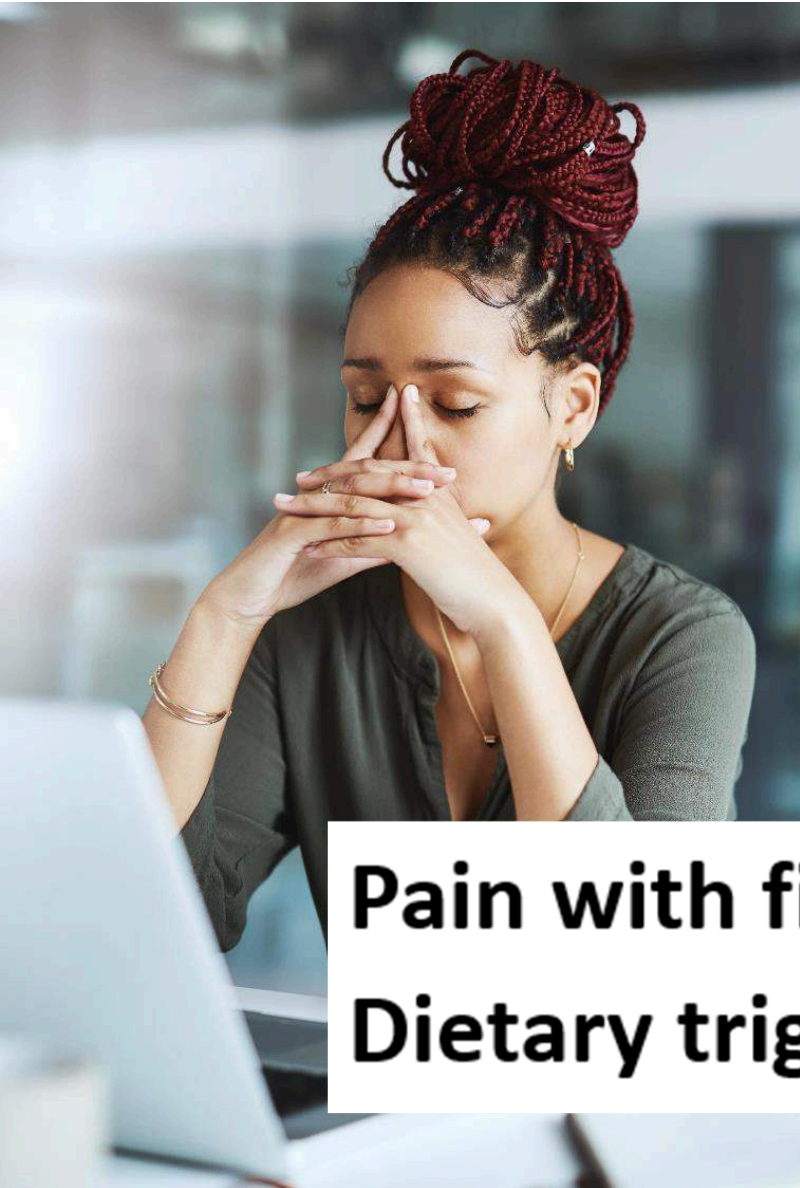


YOUTUBE:
@FACINGPELVICPAIN

Case – Always Do



Always Reevaluate Presenting Diagnosis of IC



Case: “History of Interstitial Cystitis” (IC/BPS)

- 32 year old female
 - HTN
 - GERD
 - Interstim, CCY
 - G2P1 Vaginal, 7lbs
- Severe constant urgency, frequency

Pain with filling relieved by voiding
Dietary triggers

IC/BPS: An unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of more than six weeks duration, in the absence of infection or other identifiable causes.

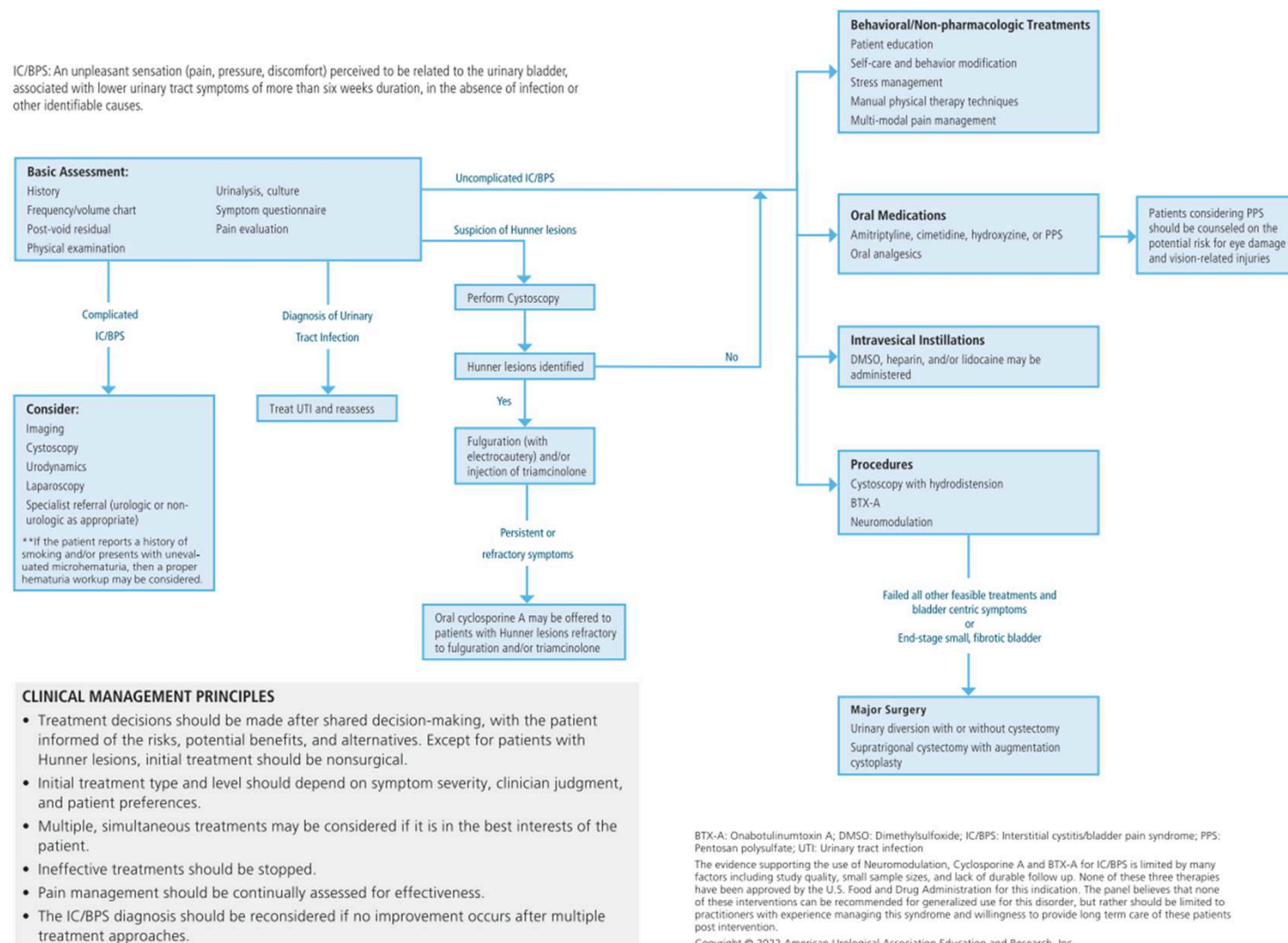


Figure. IC/BPS Diagnosis and Treatment Algorithm.



Consider:

Imaging

Cystoscopy

Urodynamics

Laparoscopy

Specialist referral (urologic or non-urologic as appropriate)

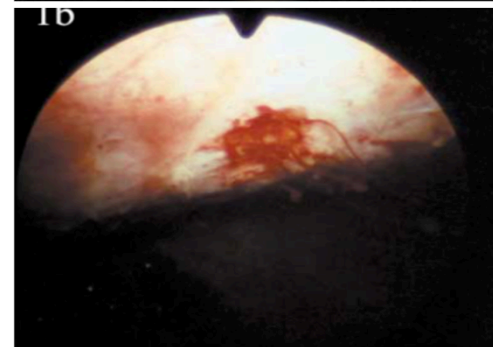
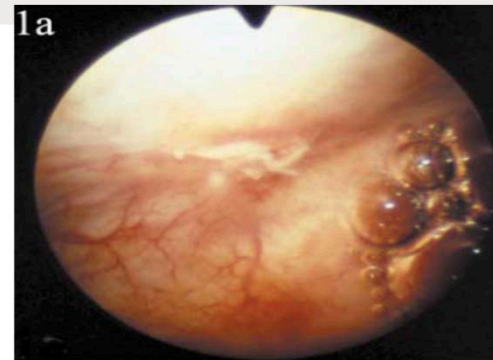
**If the patient reports a history of smoking and/or presents with unevaluated microhematuria, then a proper hematuria workup may be considered.

Interstitial Cystitis/Painful Bladder Syndrome Glomerulations and Hunner's Lesion



Anesthetic Capacity < 350 cc suspicious for IC

Campbell's Urology



Hunner's Lesion (Pecker Et Al 2000)

Reevaluation of Interstitial Cystitis - 69% NOT IC/PBS

O. Ilaka, R. Vancavage, S. Patel, S. Dharia, D. Pettijohn, Elise De

Confirmed Diagnoses of IC/BPS = 16	Number (n) and Percentage of patients
Interstitial cystitis remains most likely diagnosis	16/51 (31%) (of these 4, 25% with confirmed Hunner's lesions)
Confirmed Alternate Diagnoses = 35	Number (n) and Percentage of patients
NOT IC/BPS	35/51 (69%)
Small fiber neuropathy with autonomic dysfunction of the bladder	11/35 (31%)
Large fiber neuropathy	7/35 (20%), including 2 with MS, 2 with cervical spine stenosis, 3 with severe bilateral VUR
Bladder neck obstruction	7 (20%), including 3 with MTHFR mutation
Tarlov Cyst	2/35 (6%)
High tone levators with dysfunctional voiding and pelvic floor tension myalgia, resolved with physical therapy	2/35 (6%)
Post-chemo neuropathy	1/35 (3%)
Severe lumbar spinal stenosis with underactive bladder	1/35 (3%)
5 mm stone in distal ureter	1/35 (3%)
Prostatic obstruction	1/35 (3%)

Reevaluation of Interstitial Cystitis - 69% NOT IC/PBS

O. Ilaka, R. Vancavage, S. Patel, S. Dharia, D. Pettijohn, Elise De

NOT IC/BPS	35/51 (69%)
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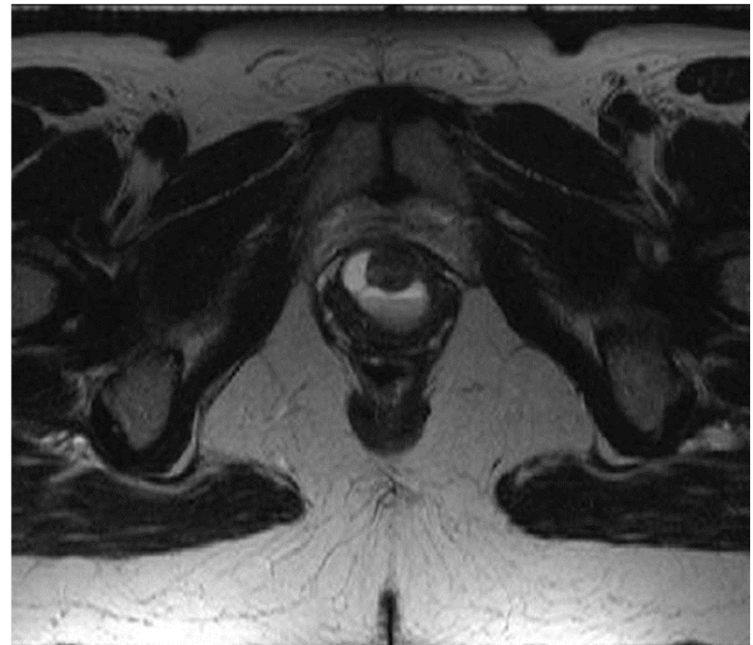
Case: “History of Interstitial Cystitis”
(IC/BPS)

Post Void Dribbling
Recurrent UTI
Occasional Dysuria



Urethral Diverticulum

- Post Void Dribbling
- Pyuria/UTI
- Dyspareunia
- Cystic Exam
- Expressible fluid/ pus





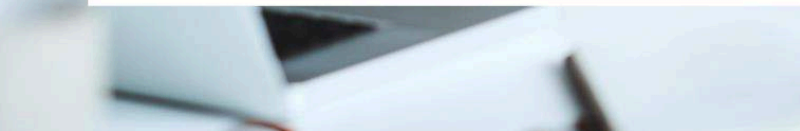
Case: “History of Interstitial Cystitis” (IC/BPS)

- 32 year old female
 - Headaches
 - GERD
 - No PSH
 - G2P1 Vaginal, 7lbs

Hesitancy, intermittency, dysuria

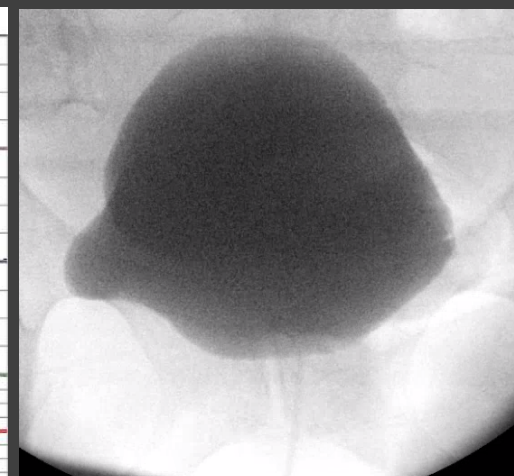
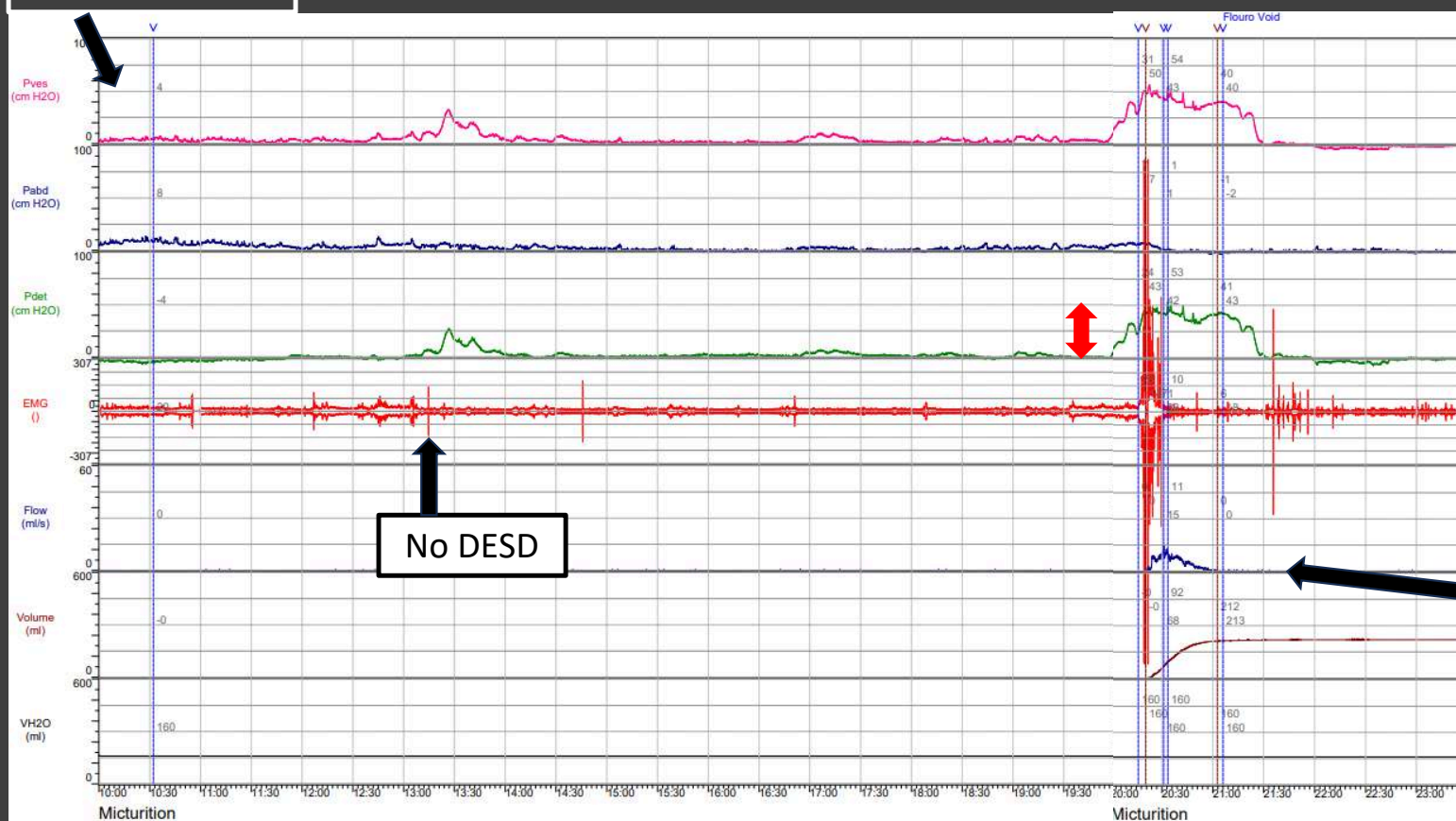
PT unsuccessful

Botulinum toxin / anticholinergics made her worse



Case – “IC”, Hesitancy, Dysuria, “UTIs”

Permissive Void



Severe Urethral Pain with Void
Bladder Neck Obstruction

Onabotulinumtoxin A to Bladder Neck

Minimally Invasive Treatment for Bladder Neck Obstruction

Rebecca A. Takele, DO; Elise J.B. De, MD, FACS

Albany Medical Center, Albany, New York



Music: <https://soundcloud.com/ashamaluevmusic/inspirational-corporate-ambient>

Patient Reported Outcomes Due to Bladder Neck Obstruction in Women Treated With Botulinum Toxin A Injection

Darrel Bibicheff¹ | Brittany Lee Roberts² | Dyer Pettijohn³ | Priscilla Rodriguez⁴ | Jessmehar Walia⁵ | Elise J. B. De⁶

TABLE 2 | Global response assessment and visual analogue scale.

Reported improvement of symptoms on GRA	Number of participants (%)
Markedly Improved	6 (33%)
Moderately Improved	6 (33%)
Slightly Improved	2 (11%)
No Change	1 (6%)
Slightly Worse	0
Moderately Worse	0
Markedly Worse	2 (11%)
Questionnaire not Answered	1 (6%)
Reported Temporary Worsening of Symptoms Post Procedure ("Flare")	
Yes	6 (35%)
No	11 (65%)
Visual Analogue Scale	
Average Score	
Very Harmful (−10) to Very Helpful (10)	
Degree of Treatment Success All Comers (N = 17)	5.3
Degree of Treatment Success in Improved Patients (N = 14)	8.3

TABLE 3 | Patient reported symptom improvement.

Symptoms which improved	# participants out of 17 (%)
Feeling of Incomplete Emptying	11 (65%)
Difficulty Starting Stream	11 (65%)
Urethral Burning	10 (59%)
Pelvic Pain	9 (53%)
Pain with Urination	9 (53%)
Frequency	8 (47%)
Urgency	7 (41%)
Intermittent Stream	1 (6%)
Lower Abdominal Pain	1 (6%)
Bladder Sensitivity	1 (6%)
Decreased Urinary Tract Infection Frequency	1 (6%)

TABLE 5 | Concurrent procedures in 17 responders with reported improvement or worsening by VAS referable separately to that procedure in the patient's perception.

Site	Number of participants	Mean VAS (−10, very harmful, to +10, very helpful)
Pelvic Floor Muscles	10 (59%)	6
External Urethral Sphincter	1 (6%)	9
Bladder Detrusor Muscle	2 (12%)	8
Vulva	3 (18%)	10

Approach to Patients Labelled with IC

Predocumentation:

- Comprehensive intake
 - Multidisciplinary symptom screening & review of symptoms
 - Catalogue of prior testing
 - Catalogue of prior trials of therapy

Visit:

Verbal story from patient

Clue e.g., acute onset unilateral pelvic pain + LUTS suggesting ureteric stone

Investigate

- Physical exam, UA & PVR as per AUA guidelines
- Review existing testing & imaging

Abnormal

Investigate

Not Abnormal

- Stable disease
- Happy with quality of life
- No red flags
- Meets SUFU definition

No

Yes

Support current plan of care for IC/BPS

Triage according to symptoms, prior testing & imaging, response to prior treatment

Bladder/ urethra

Gyn

GI

PFM

Neuro Sx

Systemic Sx

Psych

- UII
- Hesitancy / Straining
- Refractory LUTS / Pain
- Hematuria
- rUTI

Trial of relevant meds if not tried prior

UDS / Cysto / Imaging as appropriate

Treat basic e.g., GUSM
Refer for complex e.g., cyclic pain, neoplasm

Treat basic e.g., constipation
Refer for complex e.g., poor GI motility, neoplasm

If high tone levators esp. if tenderness refer to pelvic PT

Refer according to text in manuscript

Consider Serology Rheum

If high scores for depression, anxiety, trouble coping, trauma, refer to mental health resources if adequate resources not in place

Vulvar / Vaginal Treatments	Tried?	Relief?	Still Using?
Avoidance of Irritants (select toilet paper, soap)			

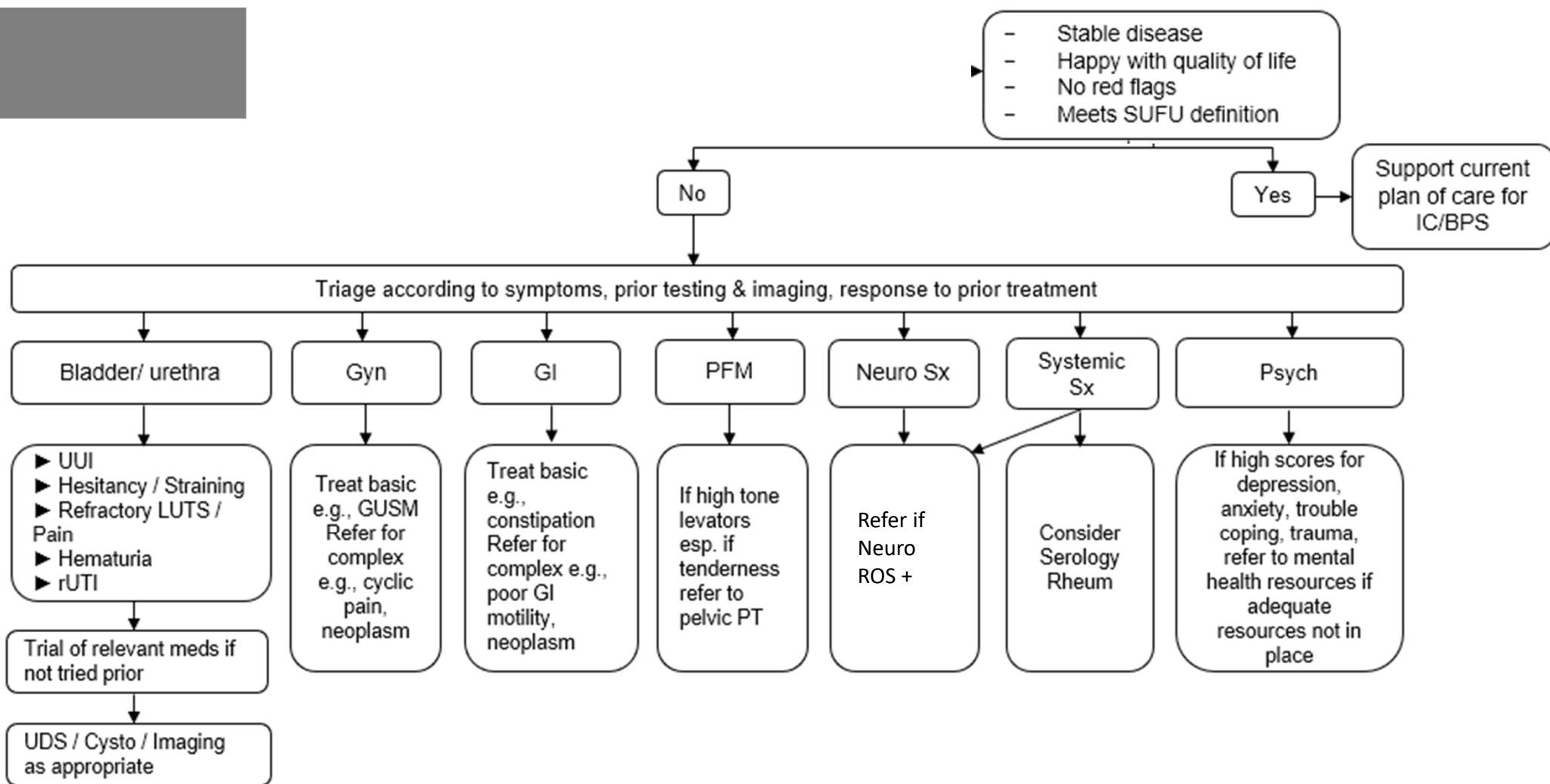
www.facingpelvicpain.org

The Treatment Map

☐ Steroid (clobetasol, hydrocortisone)			
☐ Diazepam (Valium®) vaginal Suppositories			
☐ Baclofen (Lioresel®)			
☐ Lidocaine			
☐ Gabapentin (Neurontin®)			
☐ Amitriptyline (Elavil®)			
☐ Tacrolimus (Prograf®)			
☐ Naltrexone - low dose (Vivitrol®)			
☐ Douches			
☐ Other Inserts			
☐ Wipes			
Hormonal Medications	Tried?	Relief?	Still Using?
Vaginal estrogen cream, tablet or ring			
Estrogen / progesterone pills or patches			
Hormone-secreting intrauterine device (Mirena®, Liletta®)			

Predocumentation:

- ▶ Comprehensive intake
 - Multidisciplinary symptom screening & review of symptoms
 - Catalogue of prior testing
 - Catalogue of prior trials of therapy





Consider:

Imaging

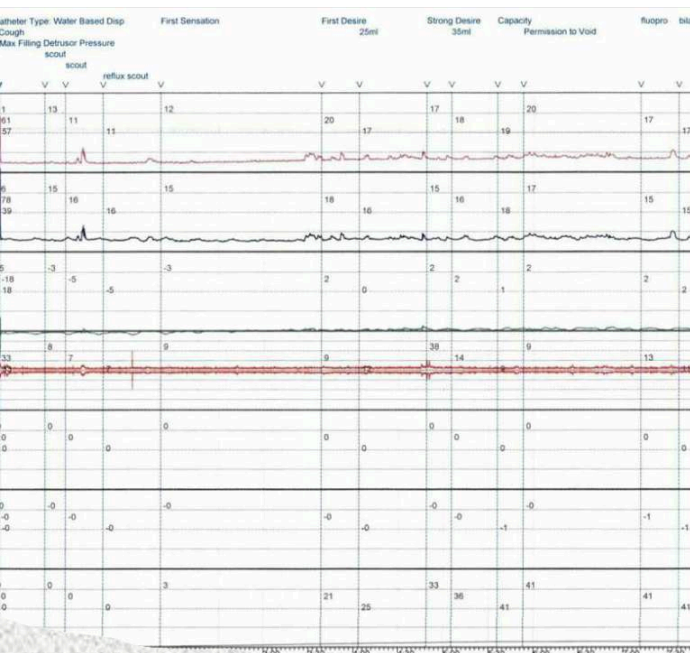
Cystoscopy

Urodynamics

Laparoscopy

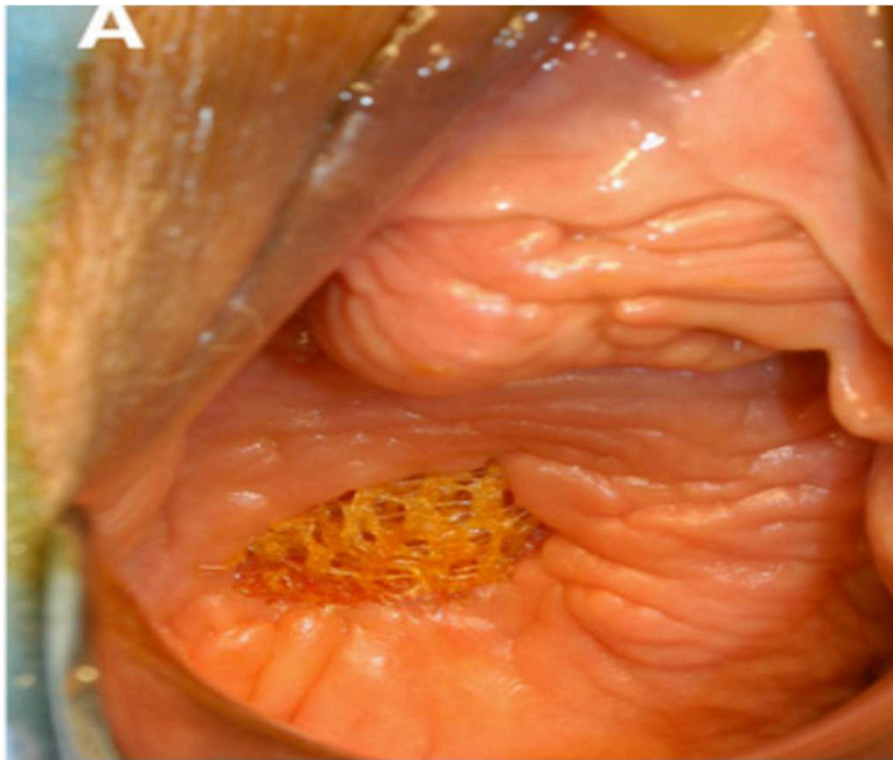
Specialist referral (urologic or non-urologic as appropriate)

**If the patient reports a history of smoking and/or presents with unevaluated microhematuria, then a proper hematuria workup may be considered.

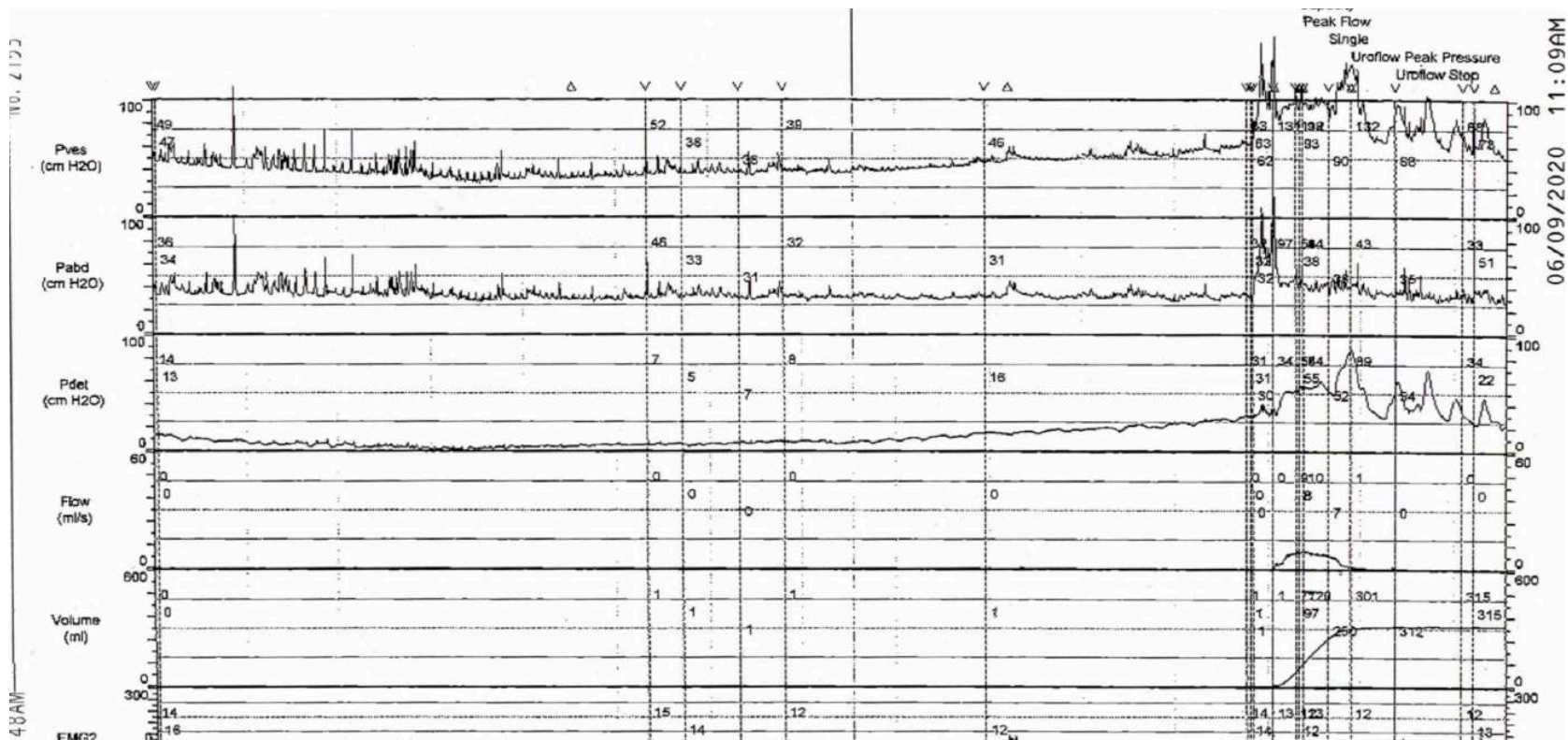


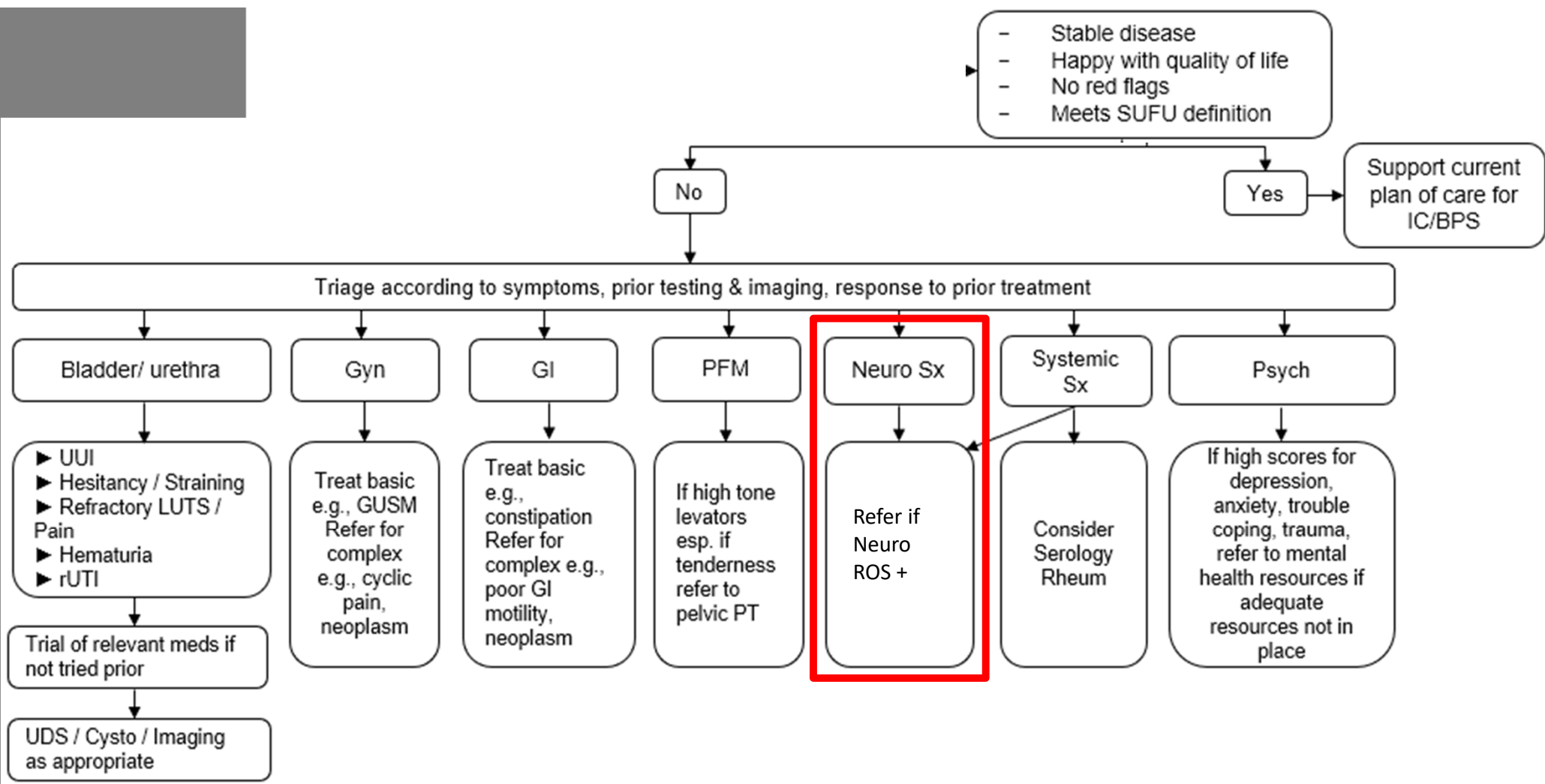
Recurrent UTIs, variable cultures with pyuria, low PVR, double voiding, failing vaginal estrogen and cranberry:
Not IC/BPS

Refractory LUTS:
Not IC/BPS until proven otherwise

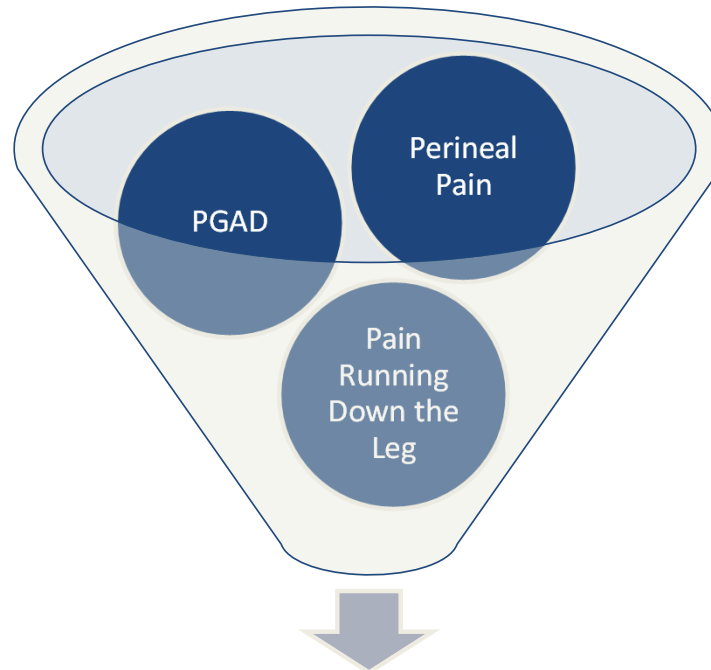


Pain with bladder filling since middle school
 Poor Bladder Compliance, Tethered Cord
 Not IC/BPS





Case – Never Miss

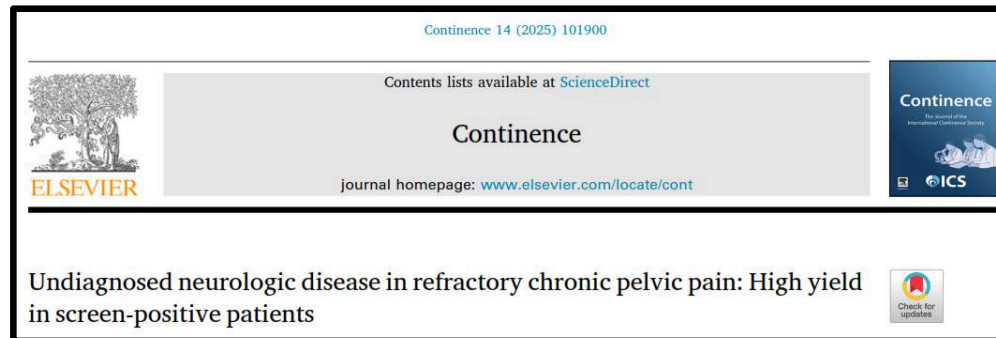


Never Miss Symptomatic Tarlov Cyst
(and try to find Occult Neurological Disease in General)

Audience Poll



- Who knows what a Tarlov cyst is?
- Who has seen one on imaging?
- Who has been told it's incidental?



- Screening criteria** for neurological eval in CPP:
- Pain or weakness in a nerve root, peripheral nerve, or CNS pattern
 - Combination of bladder, bowel, sexual, pain symptoms referable to lumbosacral spine
 - Balance or gait alteration, falls
 - Abnormal reflexes or weakness on exam
 - Upper motor neuron findings or unexplained hypotonia on urodynamics (e.g., neurogenic detrusor overactivity, DESD)
 - Autonomic dysfunction
 - Chronic Overlapping Pain Conditions
 - Pelvic pain refractory to musculoskeletal and organ-based interventions

Table 1

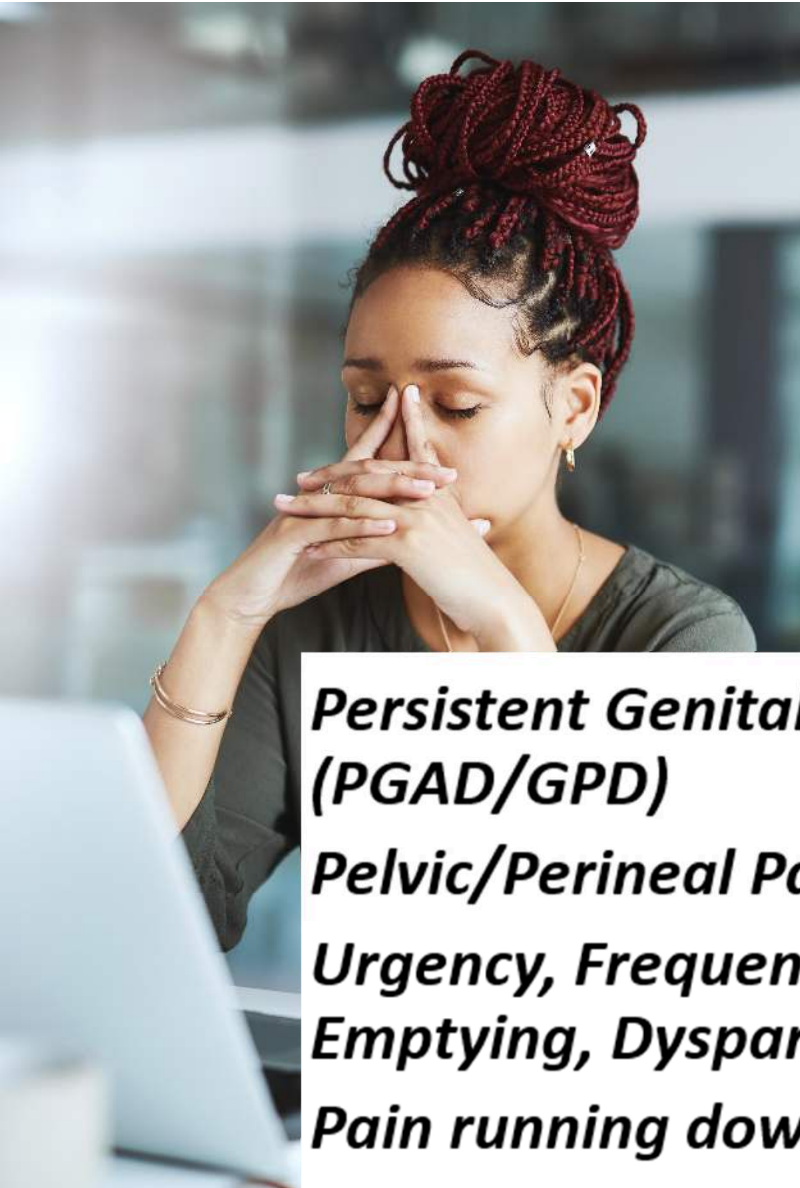
Neurologic Evaluation Outcomes.

Confirmed Neurologic Diagnoses in Patients with Completed Evaluation	Number of Patients, n (%) of 126
Any neurologic diagnosis	92 (73%)
Small Fiber Neuropathy (SFN)	29 (23%)
Large Fiber Neuropathy (LFN)	21 (17%)
Lumbosacral Radiculopathy	18 (14%)
Severe Spinal Stenosis	14 (11%)
– Cervical/thoracic	5 (4%)
– Lumbosacral	10 (8%)
Tarlov Cyst Deemed Clinically Significant	7 (6%)
Herniated Disc Deemed Clinically Significant	6 (5%)
– Cervical/thoracic	1 (1%)
– Lumbosacral	6 (5%)
Vitamin B12 Deficiency	6 (5%)
Ankylosing Spondylitis	6 (5%)
MTHFR Mutation	5 (4%)
Chiari Malformation	2 (2%)
Multiple Sclerosis	2 (2%)
Cauda Equina Syndrome	1 (1%)
Guillain-Barre Syndrome	1 (1%)
Friedrichs Ataxia	1 (1%)
Cerebal Palsy	1 (1%)

What
triggers
suspicion for
neurological
factors?

Screening criteria for neurological eval in CPP:

- Pain or weakness in a nerve root, peripheral nerve, or CNS pattern
- Combination of bladder, bowel, sexual, pain sx referable to lumbosacral spine
- Balance or gait alteration, falls
- Abnormal reflexes or weakness on exam
- Upper motor neuron findings or unexplained hypotonia on urodynamics (e.g., neurogenic detrusor overactivity, DESD)
- Autonomic dysfunction (POTS, IBS, dry eyes, palpitations)
- Chronic Overlapping Pain Conditions (migraines, TMJ, vulvodynia, foot pain)
- Pelvic pain refractory to musculoskeletal and organ-based interventions



Hight Tone Pelvic Floor with Pain (Pelvic Floor Tension Myalgia) Refractory to PT

- 32 year old female
 - Headaches
 - GERD
 - No PSH
 - G2P1 Vaginal, 7lbs

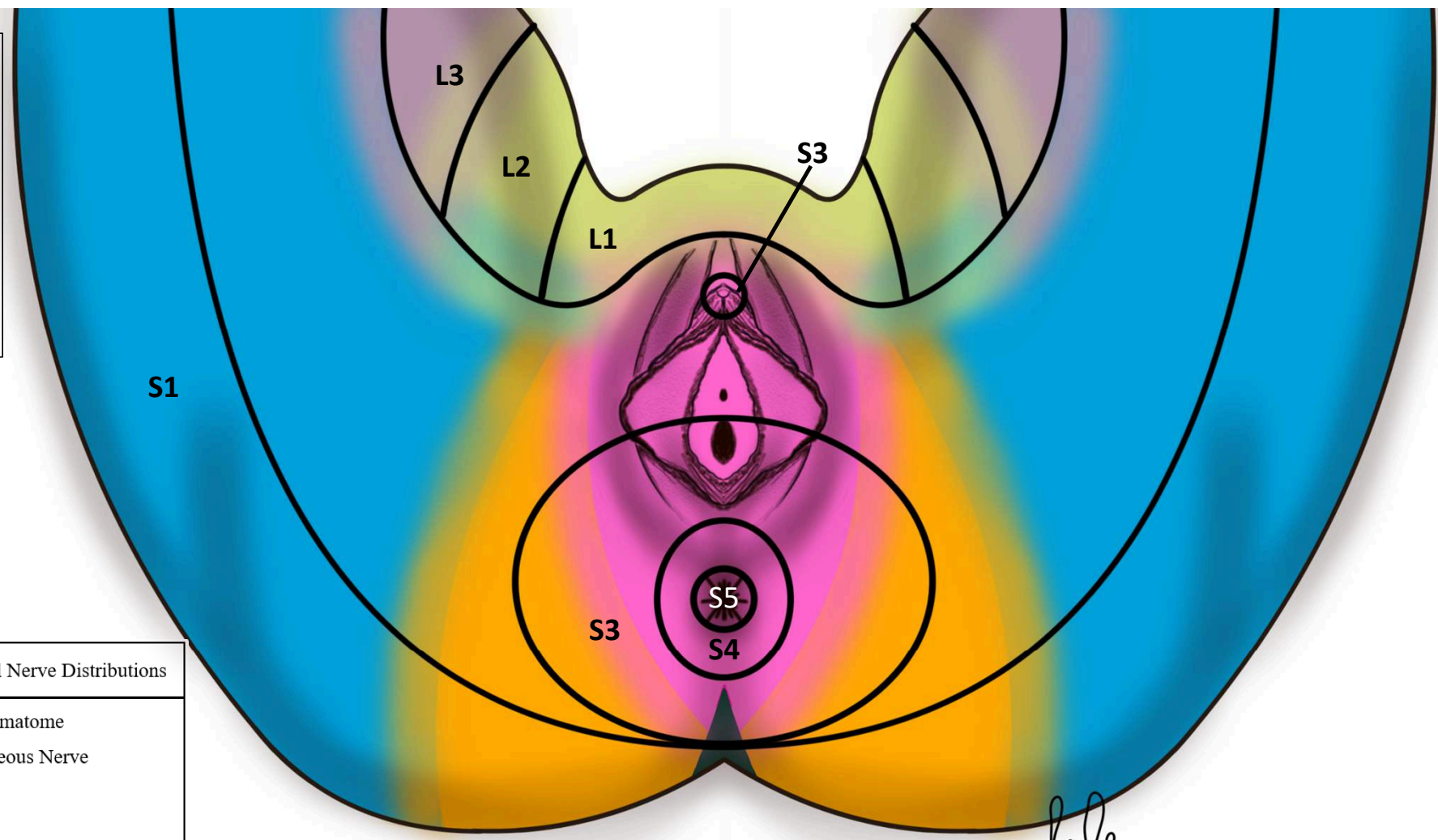
Persistent Genital Arousal Disorder/Genitopelvic Dysesthesia (PGAD/GPD)

Pelvic/Perineal Pain

Urgency, Frequency, Pelvic Pressure, Sensation of Incomplete Emptying, Dyspareunia

Pain running down the leg, worse as day goes on

Peripheral nerve distributions (color) and spinal nerve root dermatomes (black lines) can indicate which nerves are causing pain.



Dermatomes and Peripheral Nerve Distributions

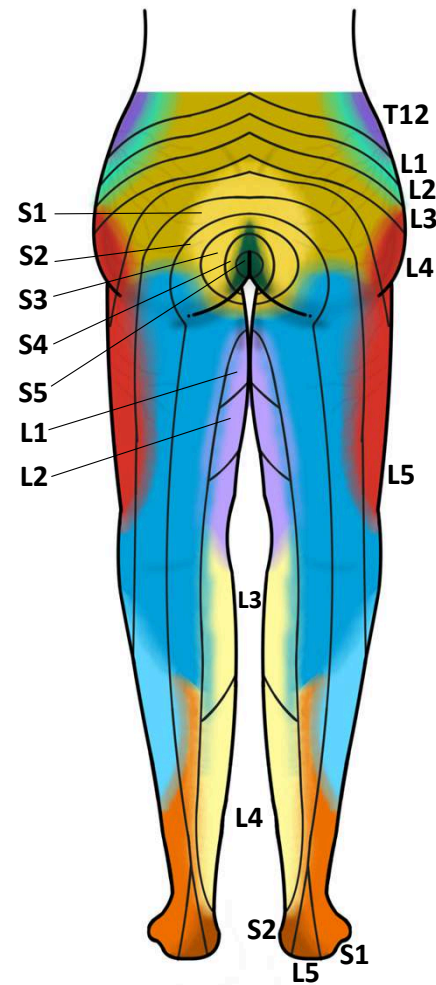
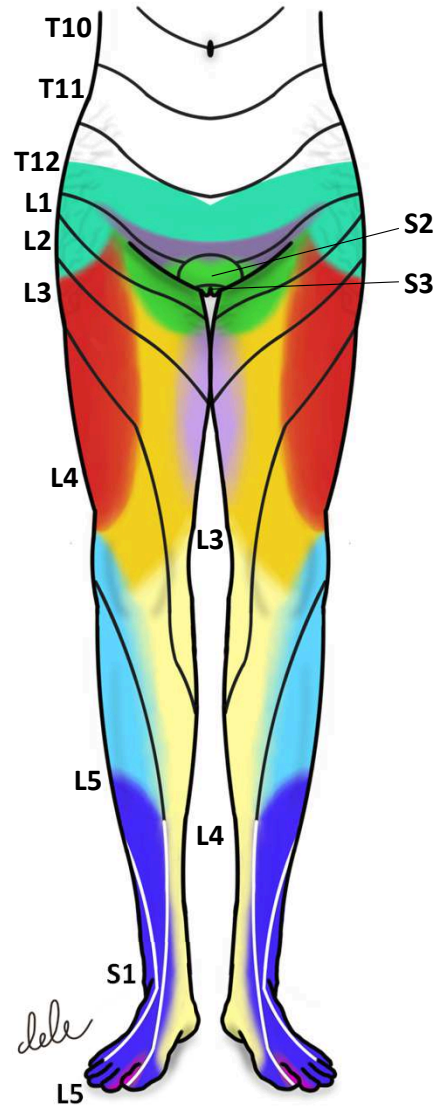
- Spinal Nerve Root Dermatome
- Posterior Femurocutaneous Nerve
- Inferior cluneal Nerve
- Pudendal Nerve
- Genitofemoral Nerve
- Obturator Nerve
- Coccygeal plexus

dele

Key of Spinal Nerve Root Dermatomes and Peripheral Nerve Distributions

— Spinal Nerve Root Dermatome

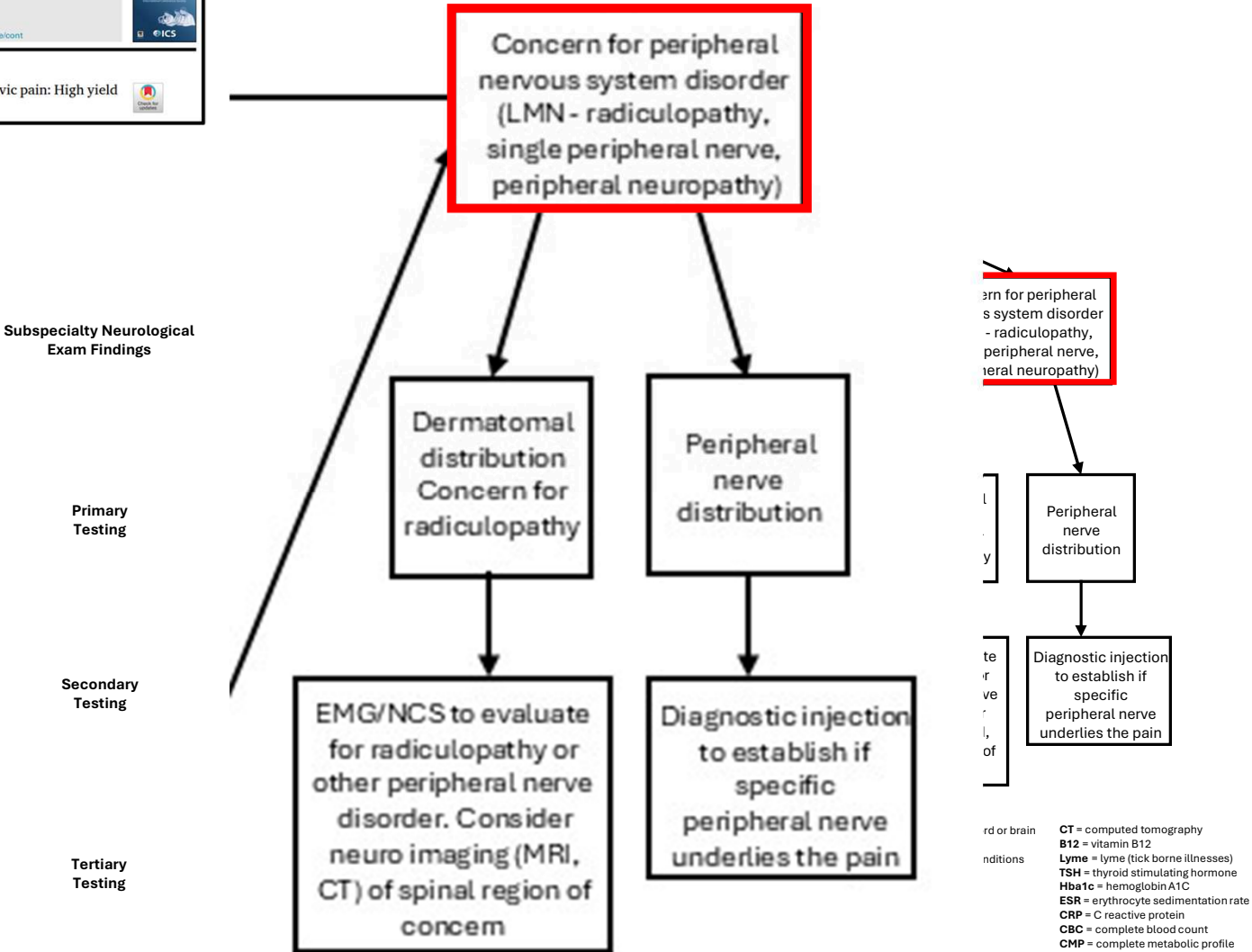
- Iliohypogastric Nerve
- Ilioinguinal Nerve
- Genitofemoral Nerve
- Lateral Femoral Cutaneous Nerve
- Femoral Nerve
- Obturator Nerve
- Posterior Femorocutaneous Nerves
- Femoral Nerve (Saphenous Branch)
- Common Fibular Nerve (superficial)
- Common Fibular Nerve (deep)
- Posterior Femorocutaneous Nerves
- Superior Cluneal Nerve
- Middle Cluneal Nerve
- Tibial Nerve (Sural)
- Tibial Nerve
- Coccygeal Plexus



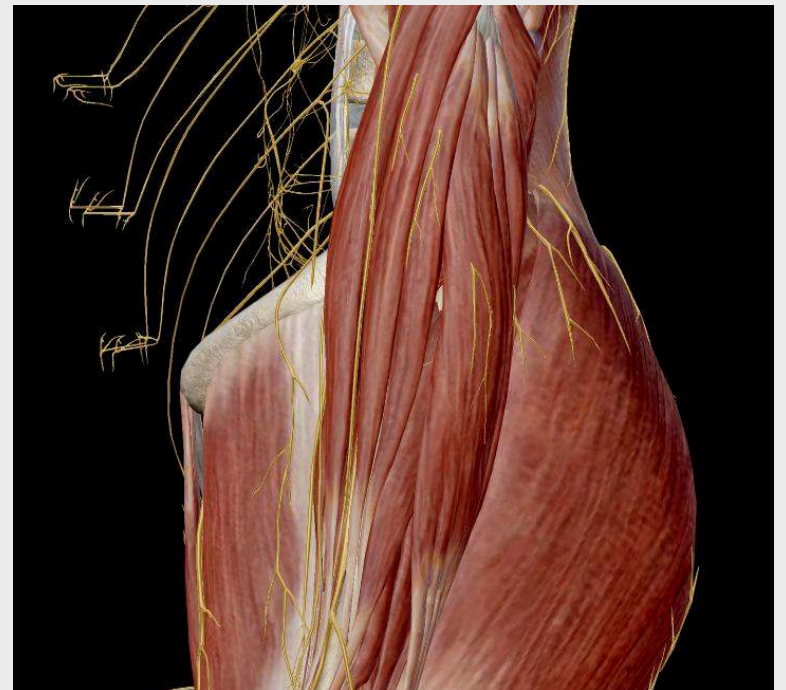
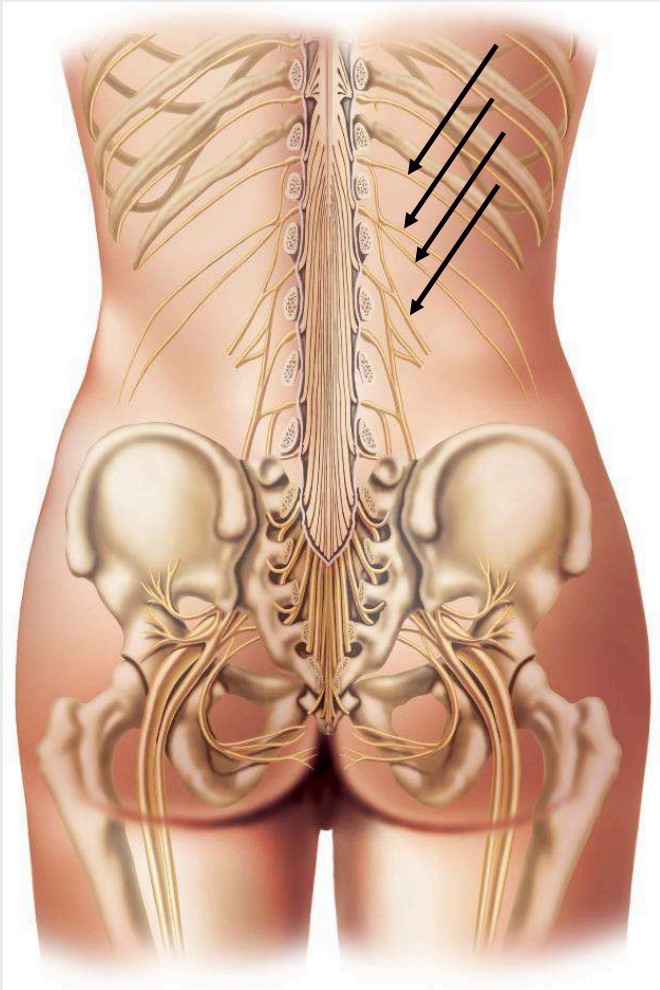
Nucelio Lemos, MD,
PhD and Diba De, BS

Requests for permission: Linked In 333233184

Figure 2: Neurologist’s Diagnostic Algorithm in people with CPP referred by pelvic health for a positive Neurological Screening.
This is a basic guide, not to replace subspecialty neurological evaluation. Copyright retained by the authors.



Abdominal Wall Nerve Entrapment



At a Glance: Sacral Process

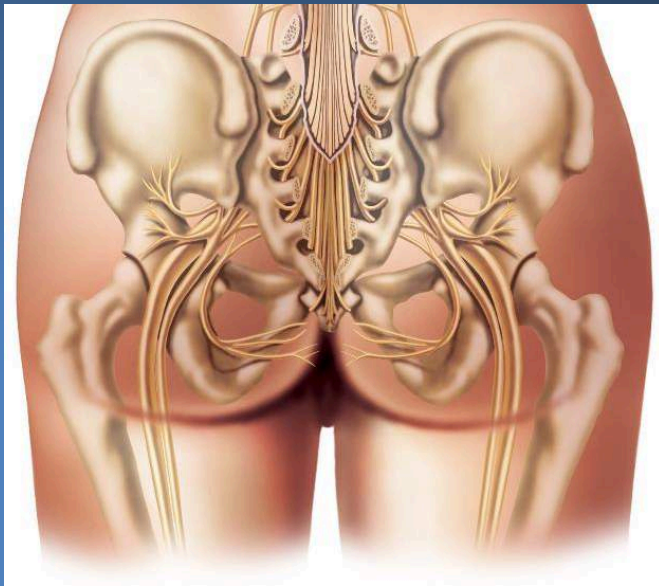
Adult Tethered Cord

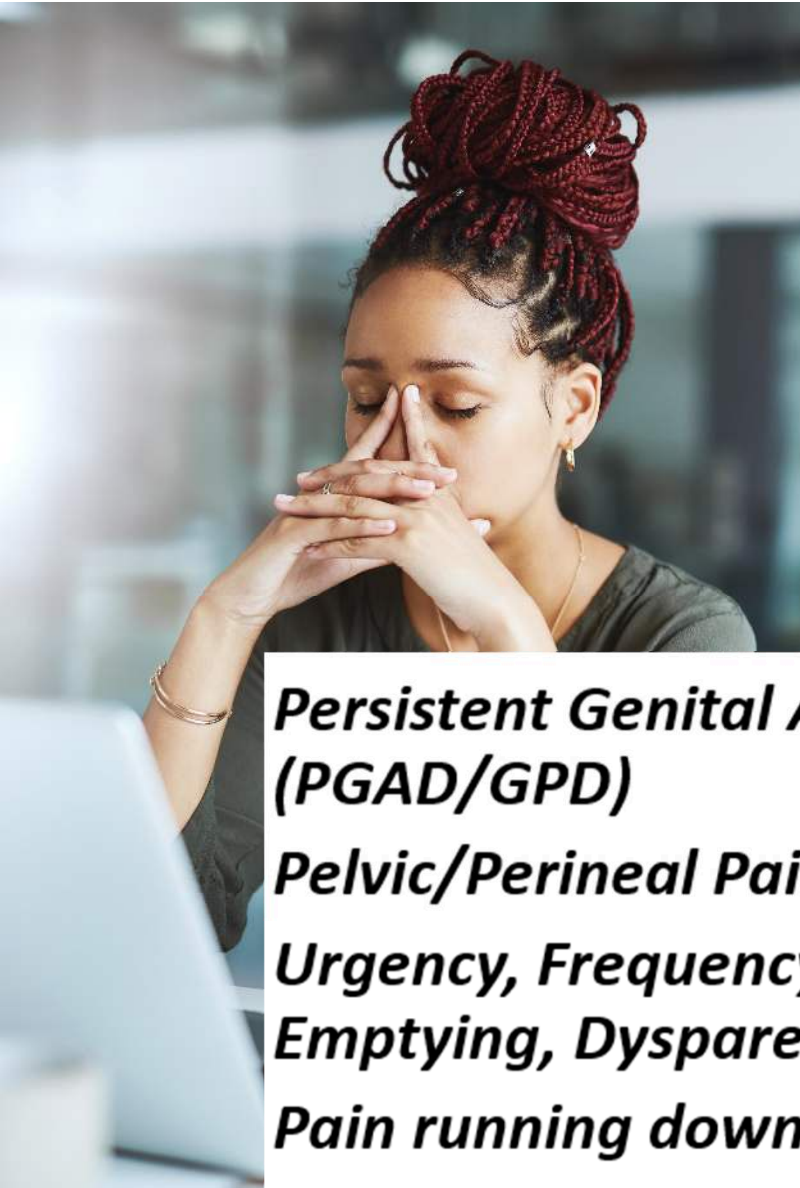
- mixed UMN and LMN

Sacral Chordoma

Syringomyelia

Bilateral Tarlov Cysts





Hight Tone Pelvic Floor with Pain (Pelvic Floor Tension Myalgia) Refractory to PT

- 32 year old female
 - Headaches
 - GERD
 - No PSH
 - G2P1 Vaginal, 7lbs

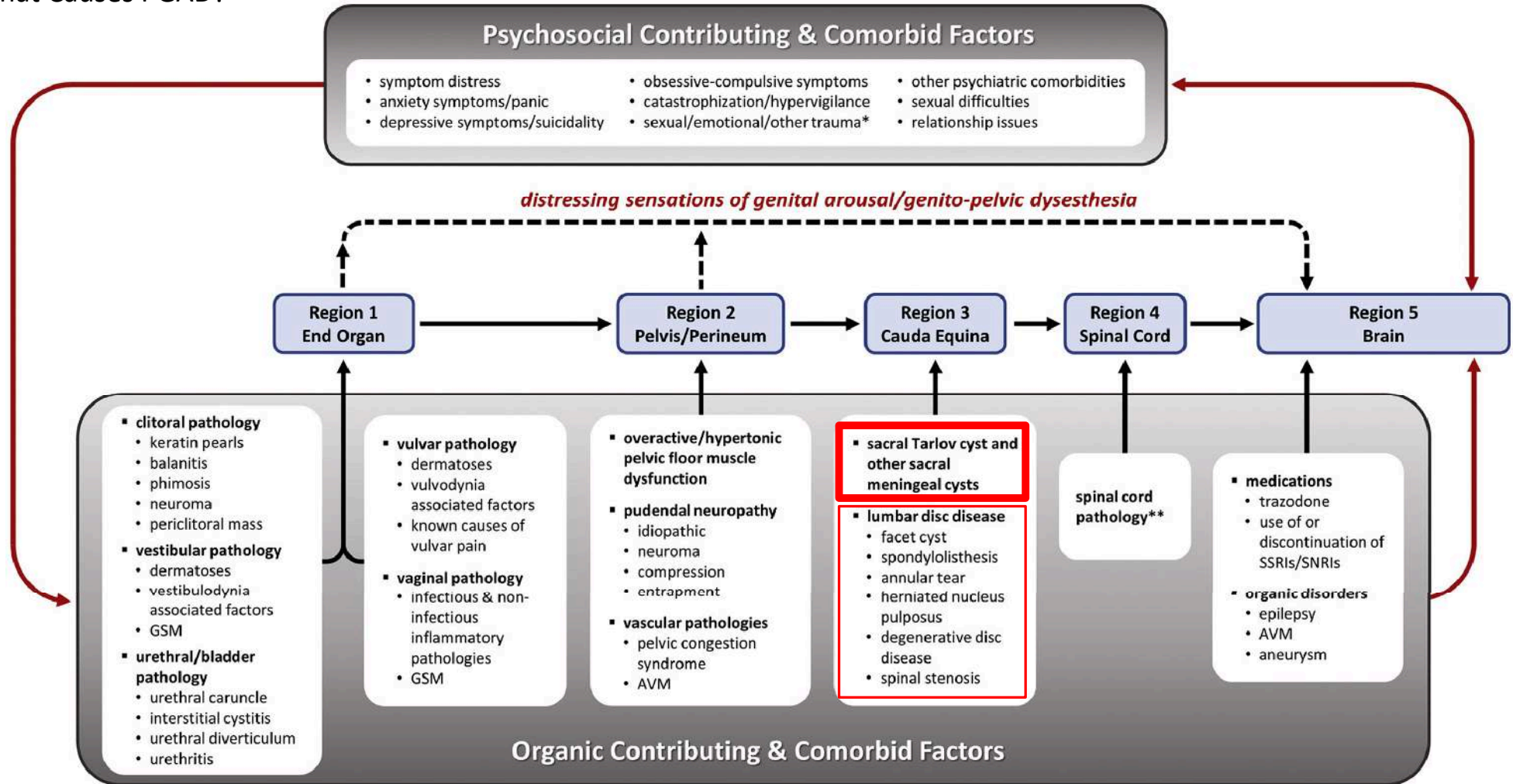
Persistent Genital Arousal Disorder/Genitopelvic Dysesthesia (PGAD/GPD)

Pelvic/Perineal Pain

Urgency, Frequency, Pelvic Pressure, Sensation of Incomplete Emptying, Dyspareunia

Pain running down the leg, worse as day goes on

What Causes PGAD?

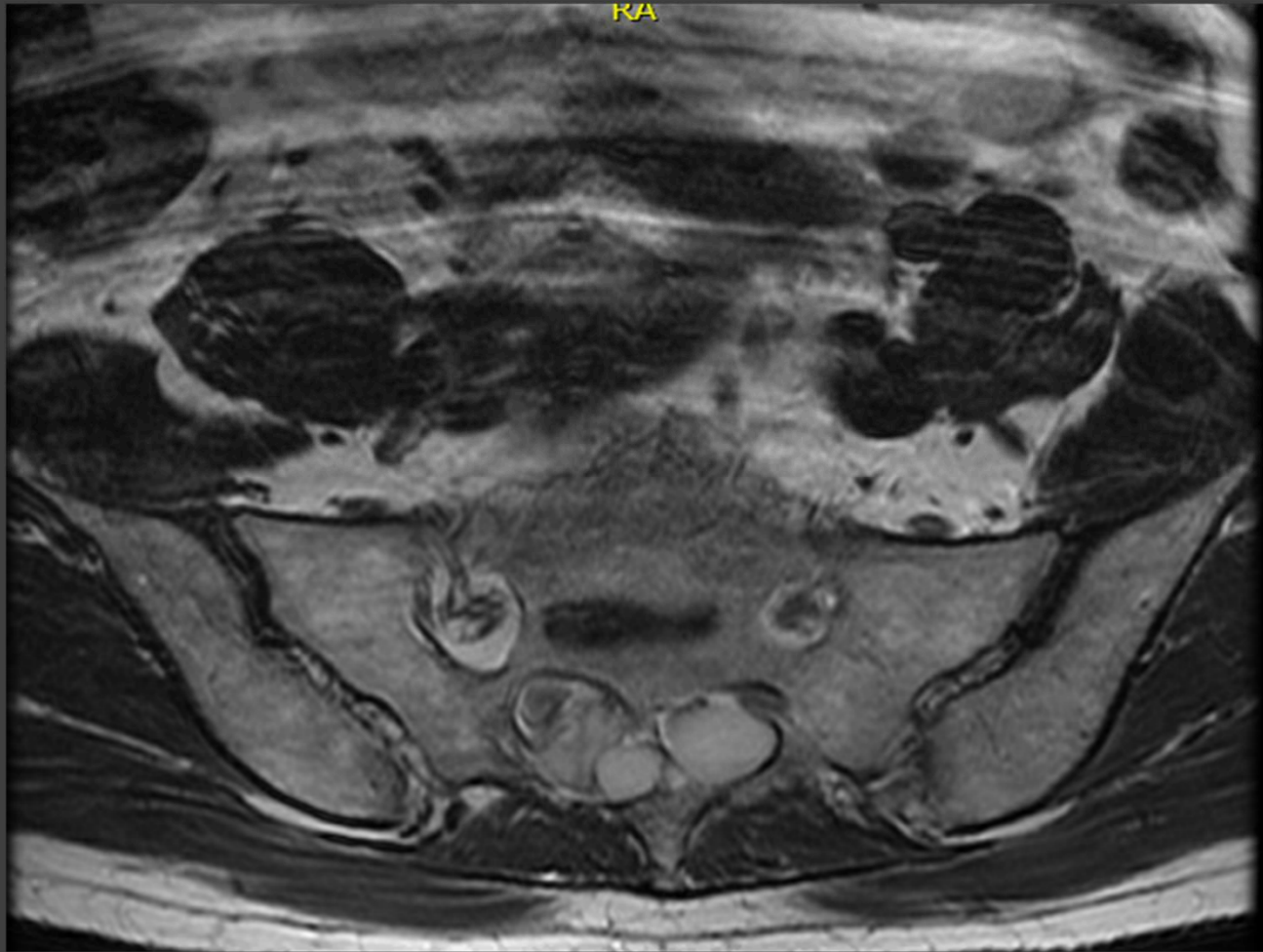


Goldstein I, Komisaruk BR, Pukall CF, Kim NN, Goldstein AT, Goldstein SW, Hartzell-Cushman R, Kellogg-Spadt S, Kim CW, Jackowich RA, Parish SJ, Patterson A, **Peters KM**, Pfaus JG. International Society for the Study of Women's Sexual Health (ISSWSH) Review of Epidemiology and Pathophysiology, and a Consensus Nomenclature and Process of Care for the Management of Persistent Genital Arousal Disorder/Genito-Pelvic Dysesthesia (PGAD/GPD). J Sex Med. 2021 Apr;18(4):665-697. doi: 10.1016/j.jsxm.2021.01.172. Epub 2021 Feb 19. PMID: 33612417.

Tarlov (Perineurial) Cyst

15% of population

15% Symptomatic



Case



32F with:

- Chronic pelvic/perineal pain
- Urinary urgency, dyspareunia
- Failed meds + pelvic PT
- Pelvic MRI: “normal”
- Sacral MRI: S2 Tarlov cyst

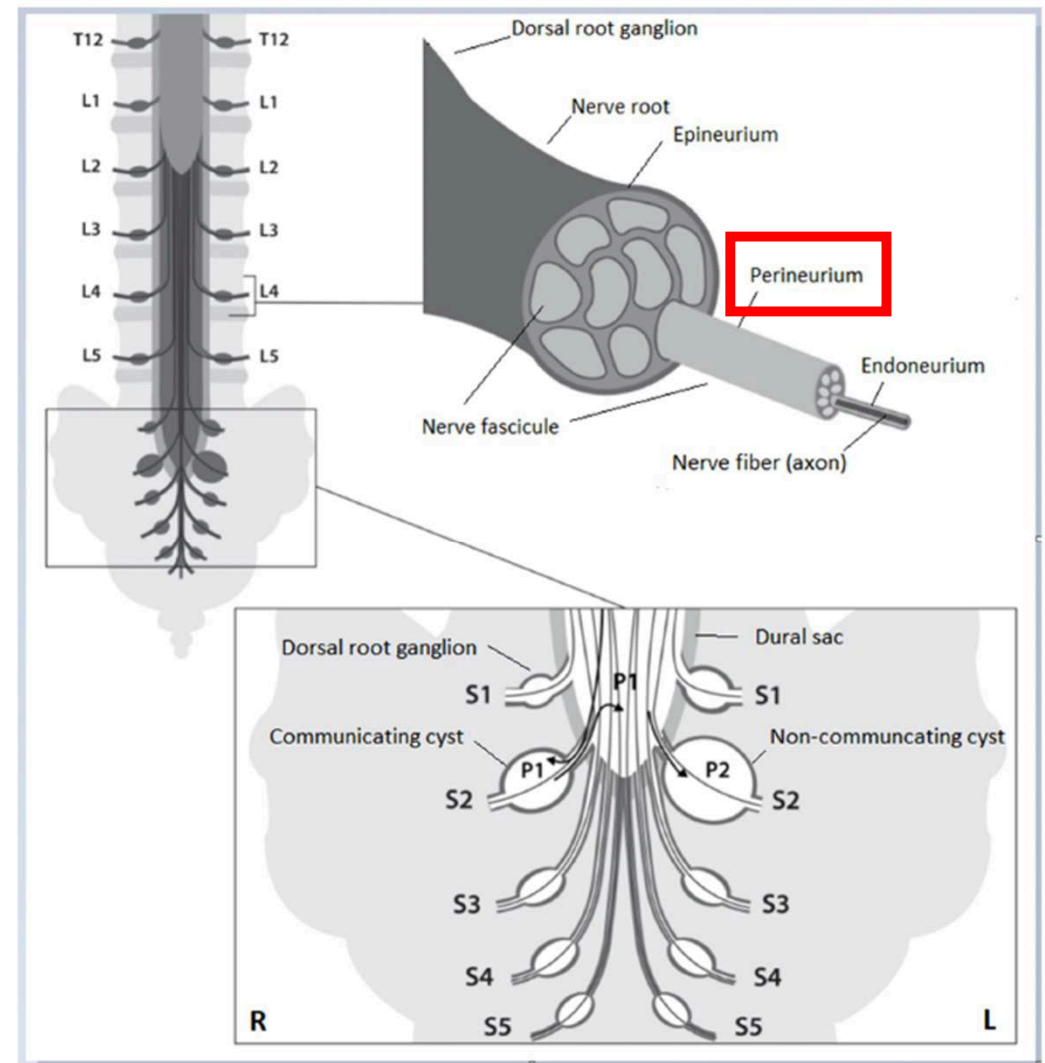
Key point: You have seen this patient

Tarlov (Perineurial) Cyst Pathophysiology

- CSF pressure → cyst formation
- Axonal stretch and injury
- Neuropathic pain, autonomic dysfunction

Key:

Compression AND Stretch Injury



Sacral Tarlov perineurial cysts: a systematic review of treatment options

Jan Alberto Paredes Mogica, MD,¹ Frank Feigenbaum, MD,² Julie G. Pilitsis, MD, PhD, MBA,³ Rudolph J. Schrot, MD, MAS,⁴ Anne Louise Oaklander, MD, PhD,⁵ and Elise J. B. De, MD⁶

INCLUDE WHEN CITING Published online December 15, 2023; DOI: 10.3171/2023.9.SPINE23559.

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J Neurosurg Spine December 15, 2023

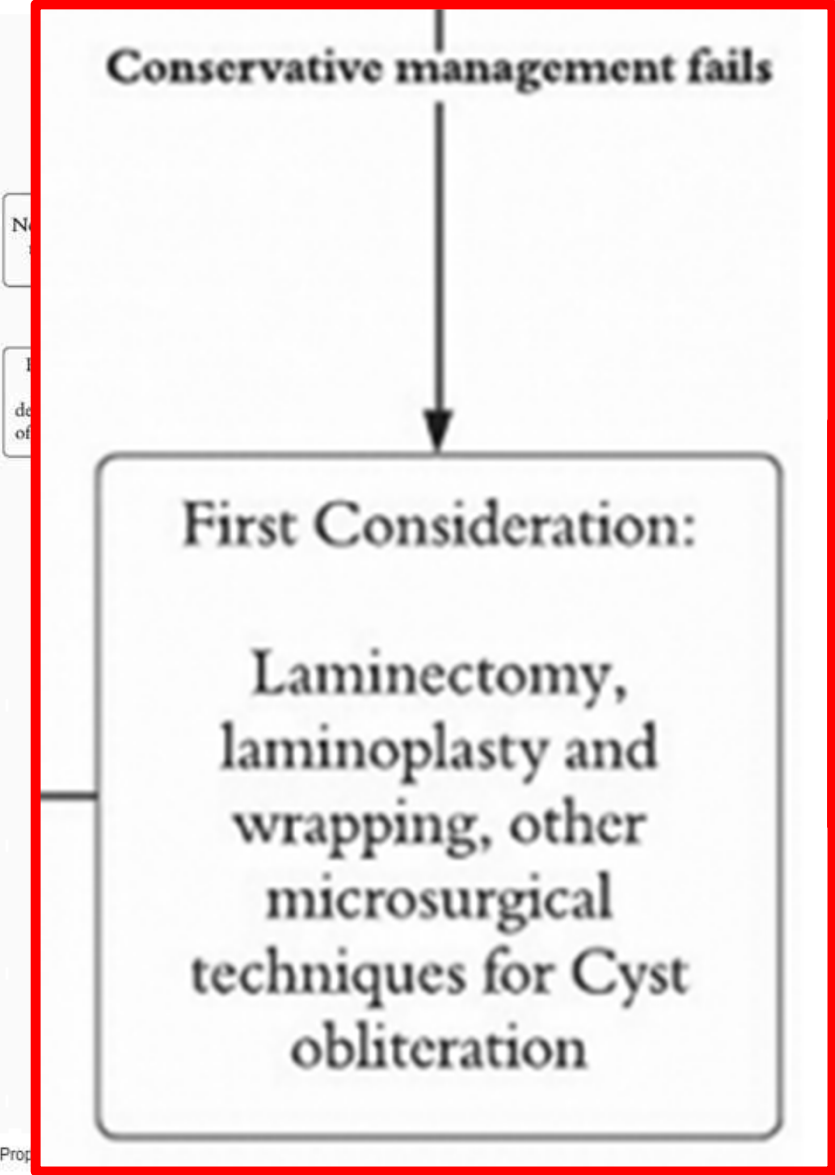
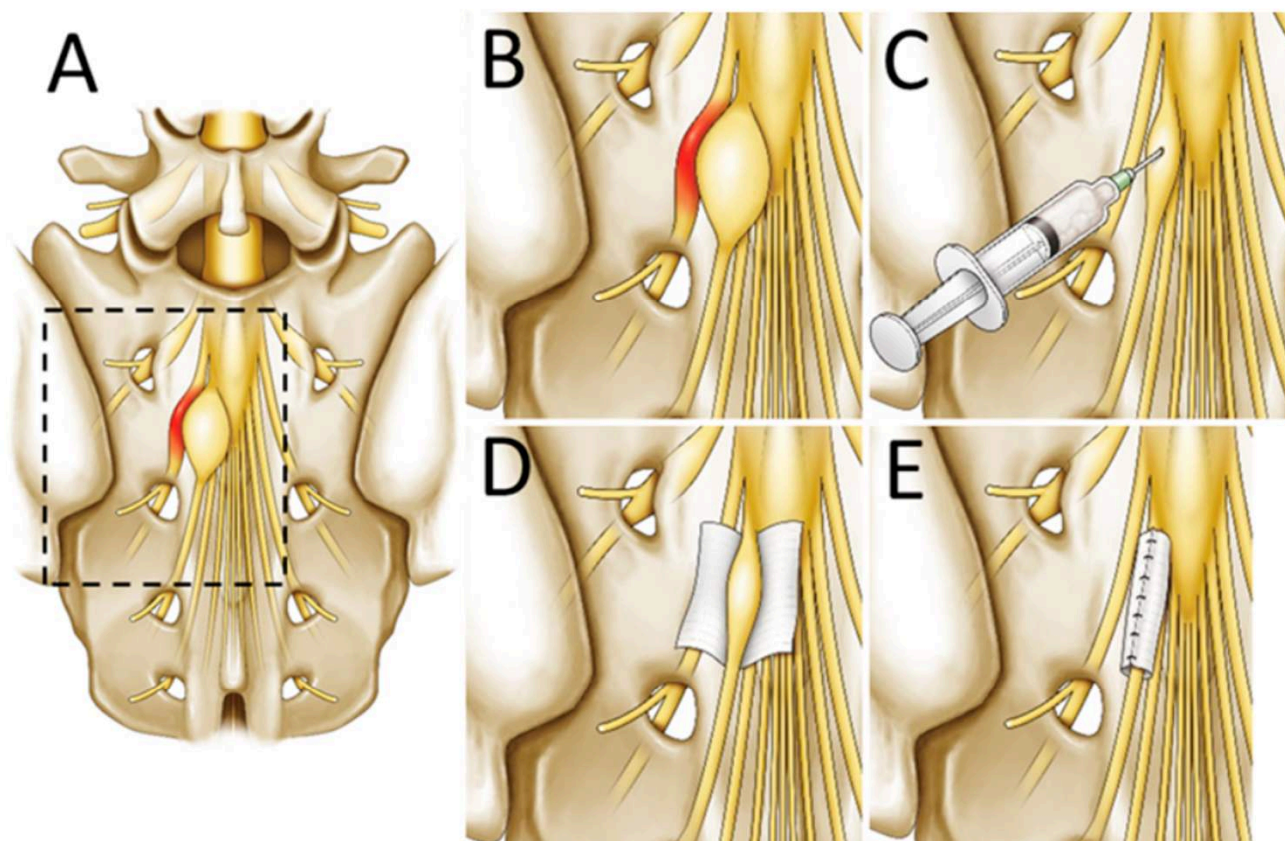


FIG. 4. Prop

Surgical Approach



Schematic drawings of the wrapping procedure for SPCs. **A:** The left S3 SPC compresses the left S2 nerve root laterally, causes the S2 radicular symptoms. **B:** Enlargement of the rectangular region enclosed by a *dotted line* in panel A. **C:** After half sacral laminectomy, the cyst is punctured and the fluid is aspirated using a small needle. **D:** After a shrinkage of the cyst, the nerve roots are separated from the cyst and an ePTFE membrane is wrapped around the cyst. **E:** The membrane is then reduced to an adequate size and is closed with titanium nonpenetrating clips. Copyright Taku Sugawara. Published with permission.

Courtesy Rudolph Schrot MD

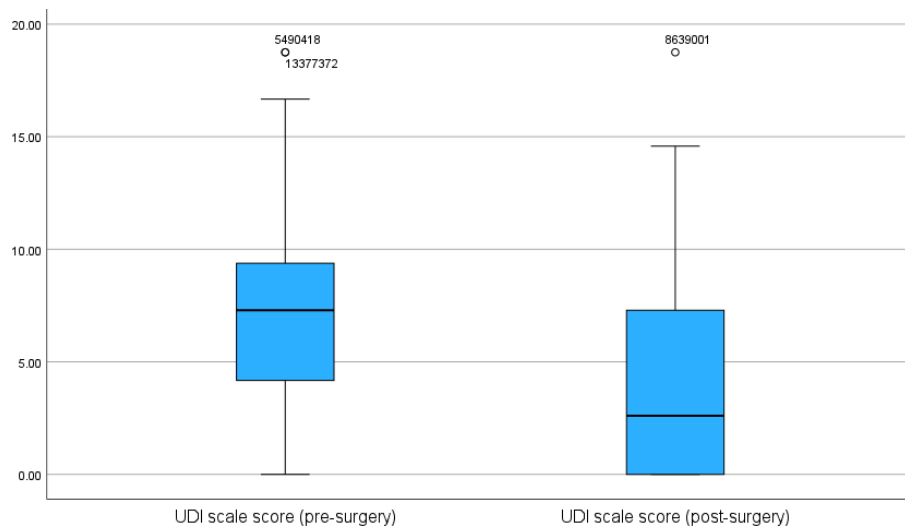


Courtesy Rudolph Schrot MD

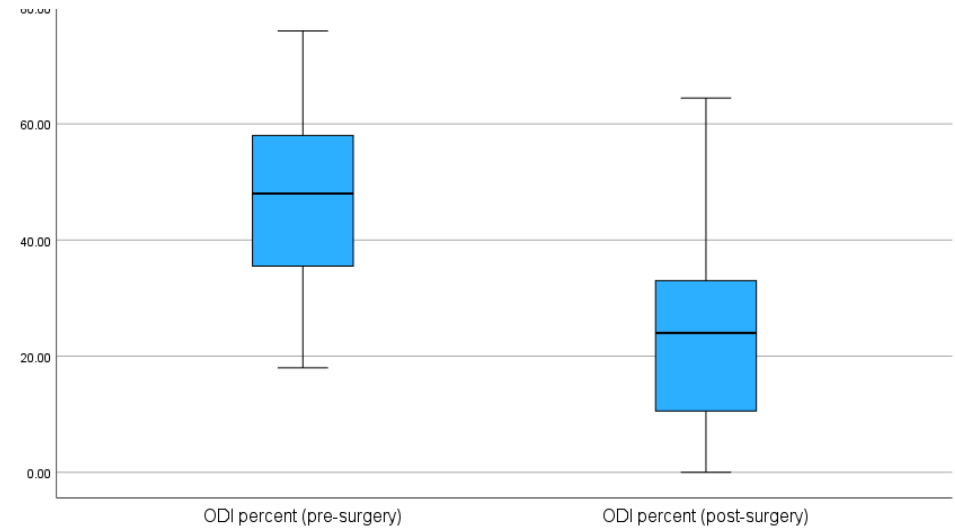
Tarlov Cyst Outcomes

- N=47
- Significant UDI-6 and ODI improvement
- 87% patient satisfaction, low complication rates

UDI-6



ODI



Tarlov Cyst Outcomes – Tarlov Cyst Quality of Life Scale

TABLE 3. The Tarlov Cyst Quality-of-Life Item Scores

Item	Preoperative	3-mo postoperative	6-mo postoperative	1-y postoperative	2-y postoperative
Sacral pain	4.6 ± 1.8	2.5 ± 2.0	2.3 ± 1.9	2.1 ± 2.0	1.9 ± 2.1
Perineal pain	2.6 ± 2.2	1.5 ± 2.0	1.3 ± 1.8	1.2 ± 1.8	1.1 ± 1.8
Perineal numbness	1.5 ± 2.0	1.3 ± 1.7	1.1 ± 1.6	.9 ± 1.6	.9 ± 1.7
Persistent genital arousal disorder	.6 ± 1.7	.5 ± 1.4	.4 ± 1.2	.3 ± 1.0	.4 ± 1.1
Lower extremity pain	4.0 ± 2.0	2.3 ± 2.1	2.0 ± 2.0	2.0 ± 2.0	2.0 ± 2.1
Lower extremity weakness	3.1 ± 2.2	1.6 ± 1.9	1.4 ± 1.8	1.3 ± 1.9	1.5 ± 2.0
Lower extremity numbness	2.8 ± 2.2	1.5 ± 1.8	1.2 ± 1.6	1.3 ± 1.7	1.5 ± 1.9
Bladder function	2.7 ± 2.2	1.2 ± 1.6	1.1 ± 1.6	1.1 ± 1.5	1.2 ± 1.7
Bowel function	2.6 ± 2.2	1.3 ± 1.8	1.2 ± 1.7	1.1 ± 1.8	1.3 ± 1.8
Dyspareunia	2.3 ± 2.4	1.4 ± 1.8	1.0 ± 1.8	1.1 ± 1.8	1.1 ± 1.9
Discomfort while sitting	5.3 ± 1.4	3.2 ± 2.0	2.9 ± 2.0	2.6 ± 2.1	2.7 ± 2.1

Feigenbaum F, Parks SE, Chapple KM. World Neurosurg. 2022 Sep;165:e276-e281. doi: 10.1016/j.wneu.2022.06.033. Epub 2022 Jun 11. PMID: 35700862.
Feigenbaum F, et al. 2026 May 1;98(5):1156-1165. doi: 10.1227/neu.0000000000003758. Epub 2025 Sep 19. PMID: 40970698.

What to Do Differently

Note Red Flags for Sacral Pathology

- Dermatomal patterns
- Sitting intolerance
- Perineal dysesthesia
- Bladder dysfunction (without anatomic cause)
- Bowel dysfunction
- Sexual dysfunction (dyspareunia, PGAD)

Change the workup

- Look at MRI images yourself
- Order MRI sacrum (not just pelvis or lumbar)
- Note EMG poorly assesses S2–S4



Courtesy Rudolph Schrot MD

When to Refer

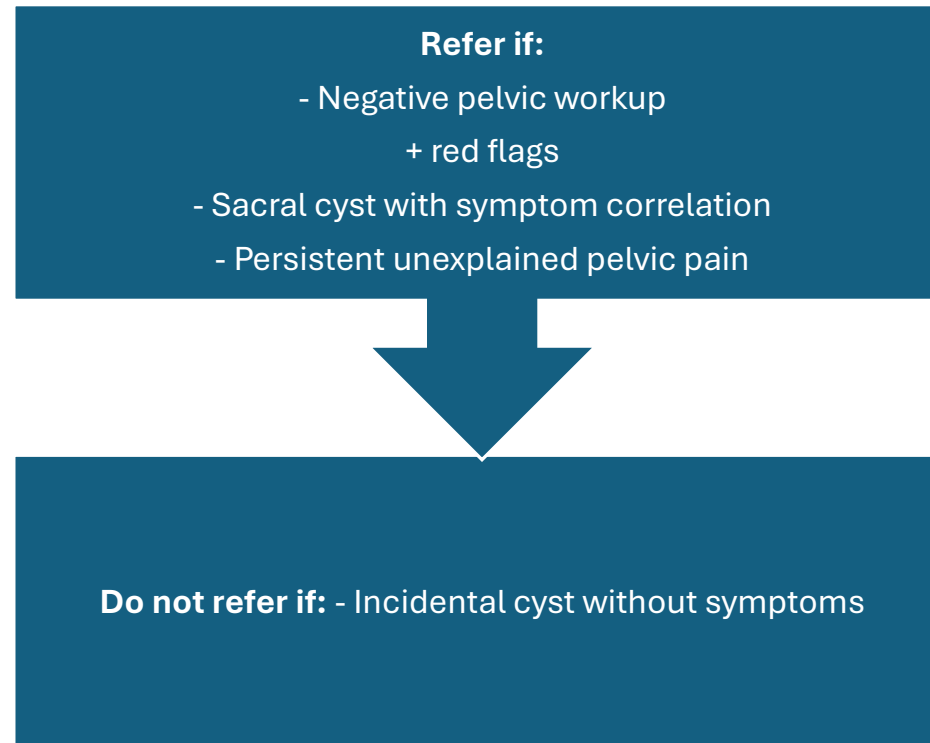
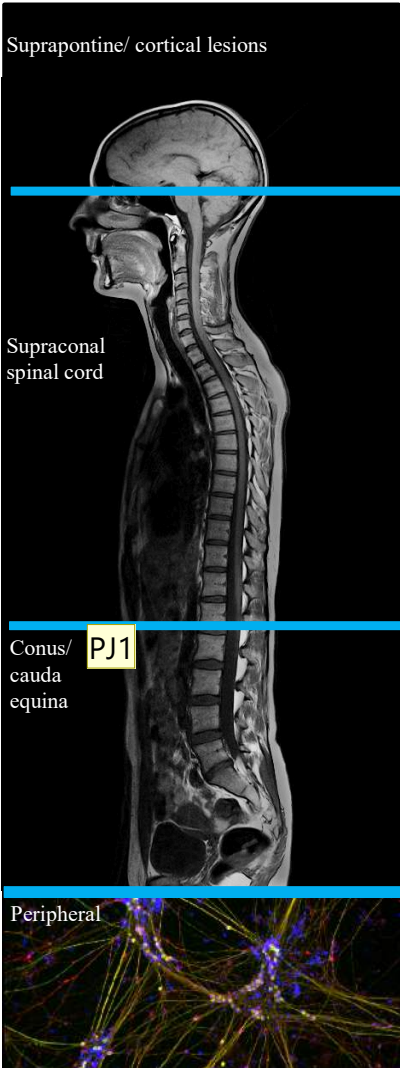


Table 1a	Level	Conditions with SINGLE Level	Symptoms	Typical UDS Findings
Conditions with MULTILEVEL Impact - Inflammatory - Elsberg syndrome (herpes) - Myelin oligodendrocyte glycoprotein antibody disease (MOGAD, CNS) - Multiple sclerosis (CNS) - Multiple System Atrophy (CNS) - Tethered spinal cord - Neoplasm - Glioblastoma (cortical) - Ependymoma (more commonly spinal cord in adults) - Sacral chordoma - Others - Metabolic - B12 deficiency - Thyroid disorders - Infectious - Lyme - Autoimmune - Lupus - Amyloidosis - Sjogren's		Suprapontine/ cortical lesions - Vascular: small vessel disease, stroke - Neurodegenerative: MSA, Parkinson's Disease, Dementia with Lewy bodies - Trauma (TBI) - Tumors - NPH Chiari, craniocervical inst. Supraconal spinal cord - Spinal cord injury - Cervical or thoracic spinal stenosis - Herniated disc - Dural arteriovenous fistula Conus/ cauda equina - Cauda equina - Lumbar spinal stenosis - Spina bifida occulta - Tarlov cyst (mixed) - Sacral chordoma Mixed: - Spina bifida occulta Peripheral - Pelvic surgery - Diabetes - Vasculitis - Sjogren's syndrome - Small fiber neuropathy	Storage symptoms Good emptying Storage symptoms Storage and voiding symptoms Incomplete emptying Voiding symptoms Incomplete emptying Caveat: Tarlov cysts can also cause storage symptoms due to irritation of dorsal root afferent sensory fibers PJ4 Mixed picture 2° to impact on parasympathetic and sympathetic nerve fibers Storage symptoms Voiding symptoms Dysuria, pain	Suprapontine - Detrusor overactivity - Opening of bladder neck - Opening of external urethral sphincter Infrapontine - detrusor overactivity, sphincter relaxation Supraconal Spinal Cord - Detrusor overactivity - Detrusor external sphincter dyssynergia - Additionally, if the lesion is above T6, bladder neck dyssynergia and autonomic dysreflexia can be seen Sacral S2-S4 - Detrusor areflexia - If Onuf's impacted, loss of external sphincter tone Tarlov Cyst, Spinal Bifida Occulta - Mixed picture (detrusor overactivity or underactivity) PJ2 Peripheral Autonomic Neuropathy: Mixed Picture - Detrusor underactivity or overactivity - Bladder neck obstruction - Reactive pelvic floor muscle dysfunction Anatomic Lesion to Peripheral nerves - Detrusor areflexia - Intrapelvic/autonomic: Intact external urethral sphincter - Pudendal: loss of external sphincter tone

PJ1 SUGGEST REPLACING

Sacral/
conus/
infrsacral/
cauda
equina

WITH

Conus/
cauda
equina

Panicker, Jalesh, 2026-03-18T09:45:49.768

PJ2 Duplication

Panicker, Jalesh, 2026-03-18T09:47:54.093

PJ3 Pelvic surgery is peripheral and not spinal and hence moved here

Panicker, Jalesh, 2026-03-18T09:48:15.484

PJ4 Adding a separate heading Peripheral is making this look more complicated- the dysfunction is quite similar between sacral/infrsacral and peripheral

Panicker, Jalesh, 2026-03-18T09:50:38.229

What
triggers
suspicion for
neurological
factors?

Screening criteria for neurological eval in CPP:

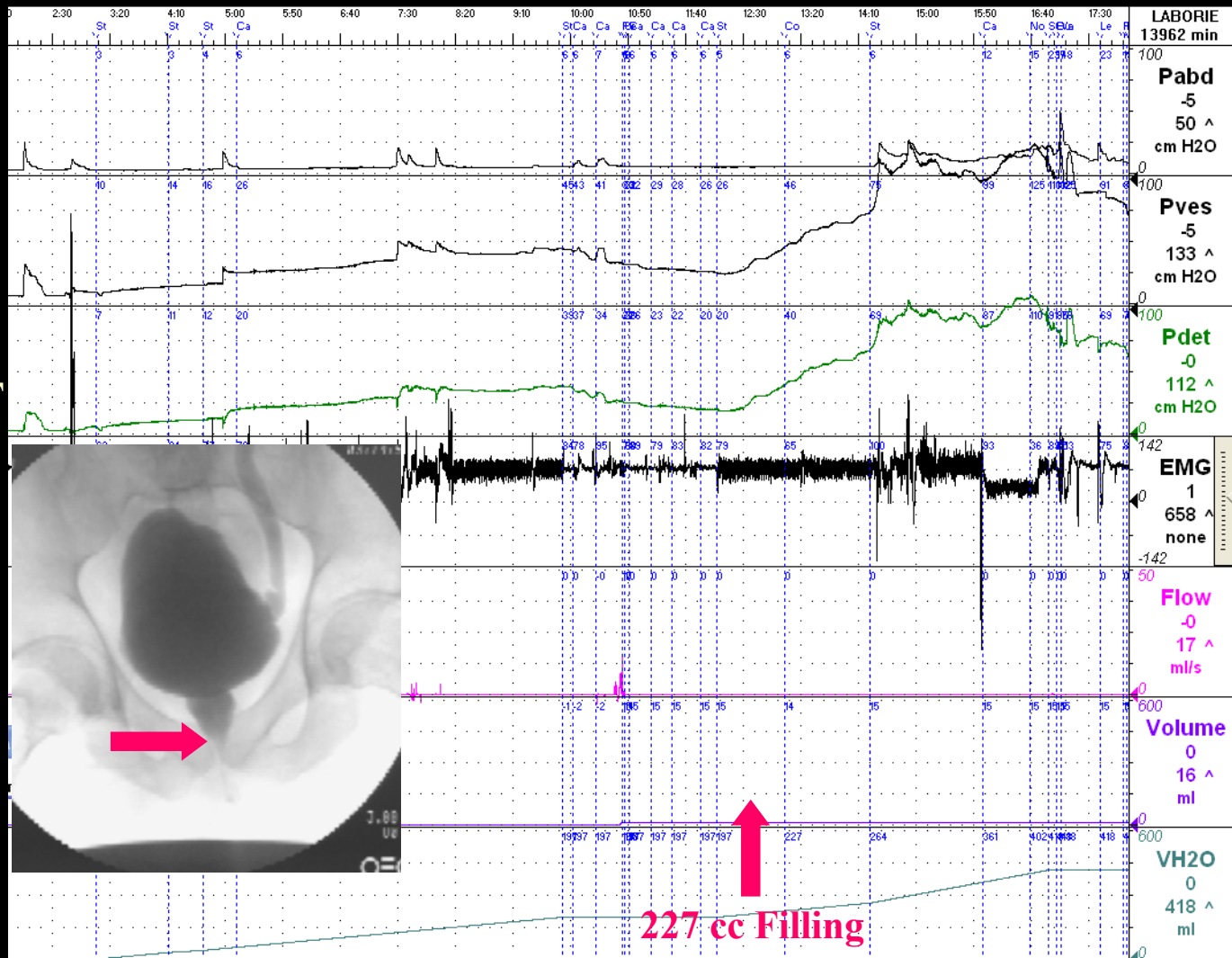
- Pain or weakness in a nerve root, peripheral nerve, or CNS pattern
- Combination of bladder, bowel, sexual, pain sx referable to lumbosacral spine
- Balance or gait alteration, falls
- Abnormal reflexes or weakness on exam
- Upper motor neuron findings or unexplained hypotonia on urodynamics (e.g., neurogenic detrusor overactivity, DESD)
- Autonomic dysfunction (POTS, IBS, dry eyes, palpitations)
- Chronic Overlapping Pain Conditions (migraines, TMJ, vulvodynia, foot pain)
- Pelvic pain refractory to musculoskeletal and organ-based interventions

NEUROGENIC DETRUSOR OVERACTIVITY, LEFT VUR, DESD

p ABD

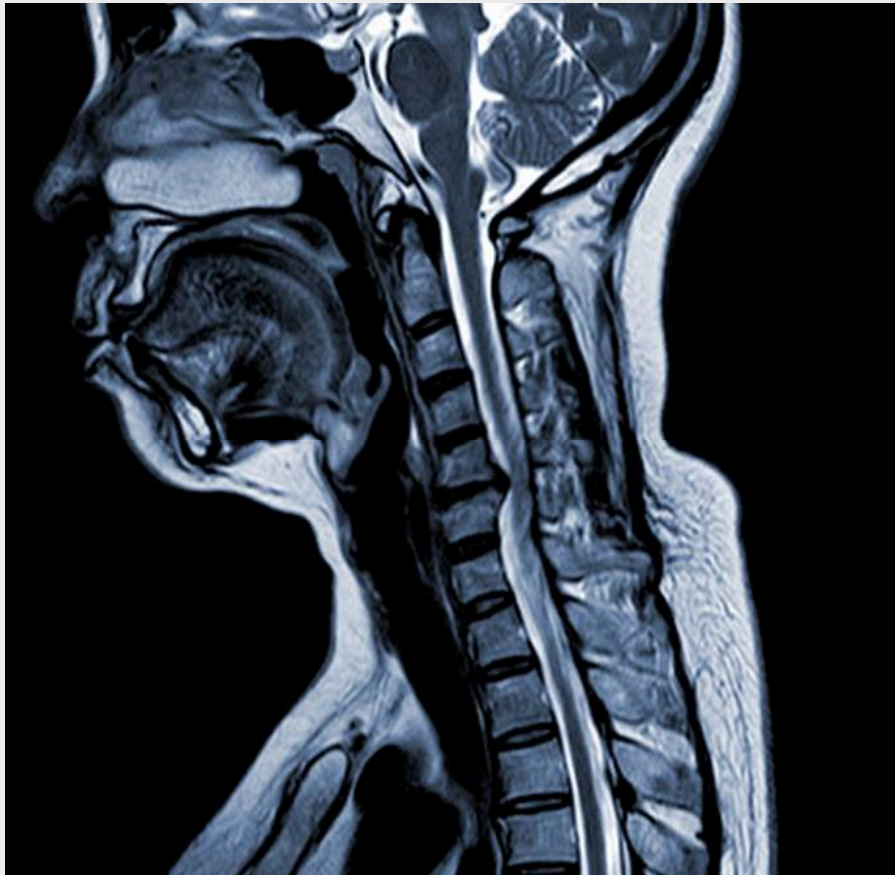
p VES

p DET



VOL
IN

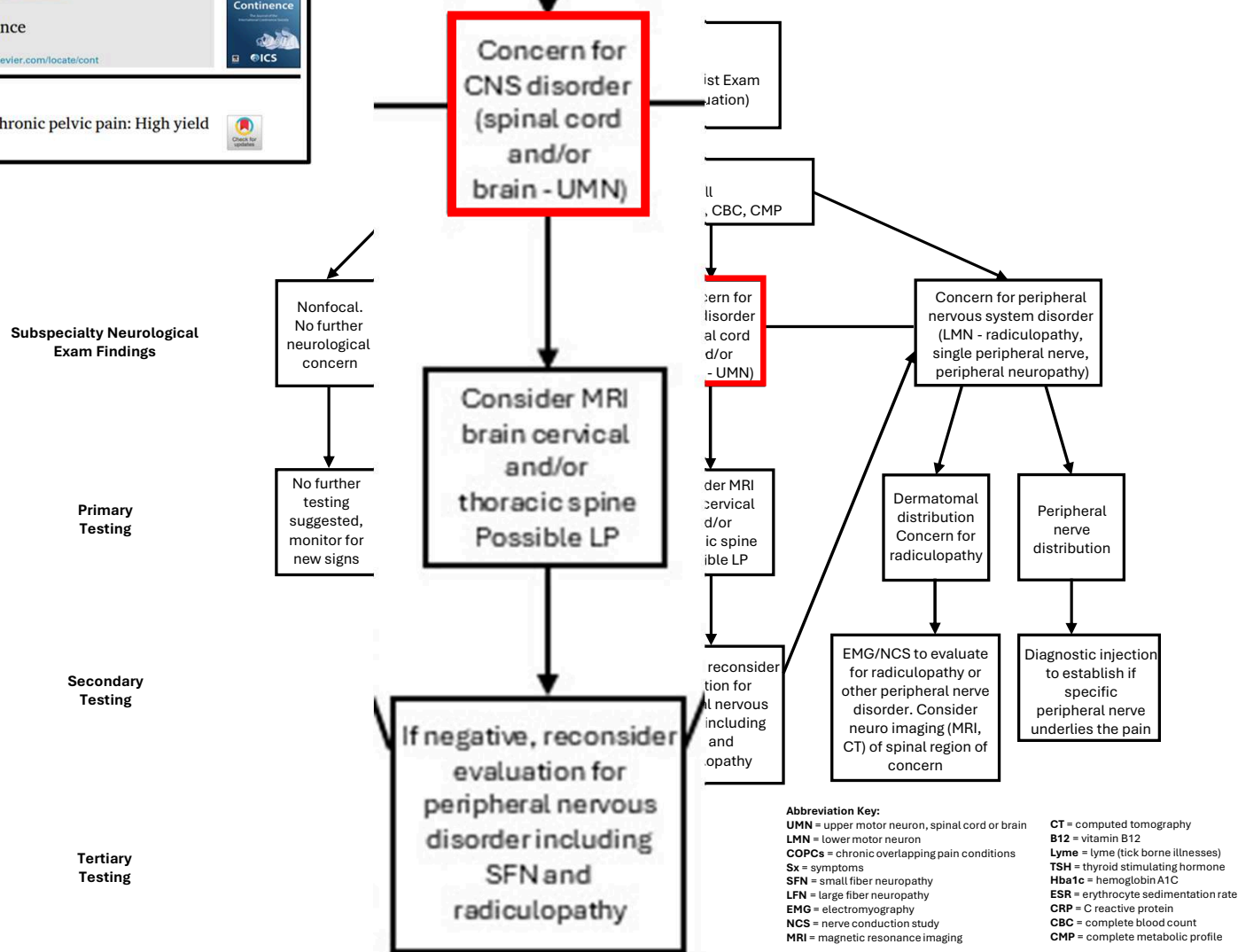
Central Nervous System – Large Fiber Neuropathy – Reflexes



1. Biceps and Brachioradialis C5/C6
2. Triceps C7
3. Patellar L2-L4
4. Ankle S1

Undiagnosed neurologic disease in refractory chronic pelvic pain: High yield in screen-positive patients

Figure 2: Neurologist's Diagnostic Algorithm in people with CPP referred by pelvic health for a positive Neurological Screening.
This is a basic guide, not to replace subspecialty neurological evaluation. Copyright retained by the authors.





 = autonomic symptom

Case: Refractory Pain, Plus EDS, Poor GI Motility

- 32 year old female
 - Headaches
 - GERD
 - No PSH
 - G2P1 Vaginal, 7lbs
 - Urgency, Frequency, Pelvic Pressure, Sensation of Incomplete Emptying, Dyspareunia
- Hesitancy, intermittency, severe dysuria
- PT unsuccessful
- Bladder neck obstruction on UDS
- Alpha blockers lead to severe dizziness
- Botulinum to bladder neck
 - Severe flare
 - Significant benefit
- Still with pelvic pain and systemic symptoms
- EDS/Hypermobility
- 10 yr constipation - up to 8 wks w/o BM
- Infrequent urge
- Low abdominal bloating/pain
- Multiple hospital presentations
- Tinnitus
- Fibromyalgia
- Co-morbidity
 - 2008/2017 Bereavement counselling
 - 2015 Alcohol Dependence
 - 2016 PCOS
 - 2017 IBS –constipation predominant
 - 2019 Colonoscopy NAD
 - 2019 Raynaud's
- Medications
 - Doxycycline
 - Prucalopride
 - Linaclotide
 - Dolcolax

What
triggers
suspicion for
neurological
factors?

Screening criteria for neurological eval in CPP:

- Pain or weakness in a nerve root, peripheral nerve, or CNS pattern
- Combination of bladder, bowel, sexual, pain sx referable to lumbosacral spine
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- Autonomic dysfunction (POTS, IBS, dry eyes, palpitations)
- Chronic Overlapping Pain Conditions (migraines, TMJ, vulvodynia, foot pain)
- Pelvic pain refractory to musculoskeletal and organ-based interventions

Differential
diagnosis-
Widespread
Autonomic
Symptoms and
Pain

Rheumatic

- Arthritis (OA, RA)
- Polymyalgia Rheumatica
- Osteomalacia
- Myopathy
- Spondyloarthropathies
- Systemic Lupus Erythematosus

Endocrine

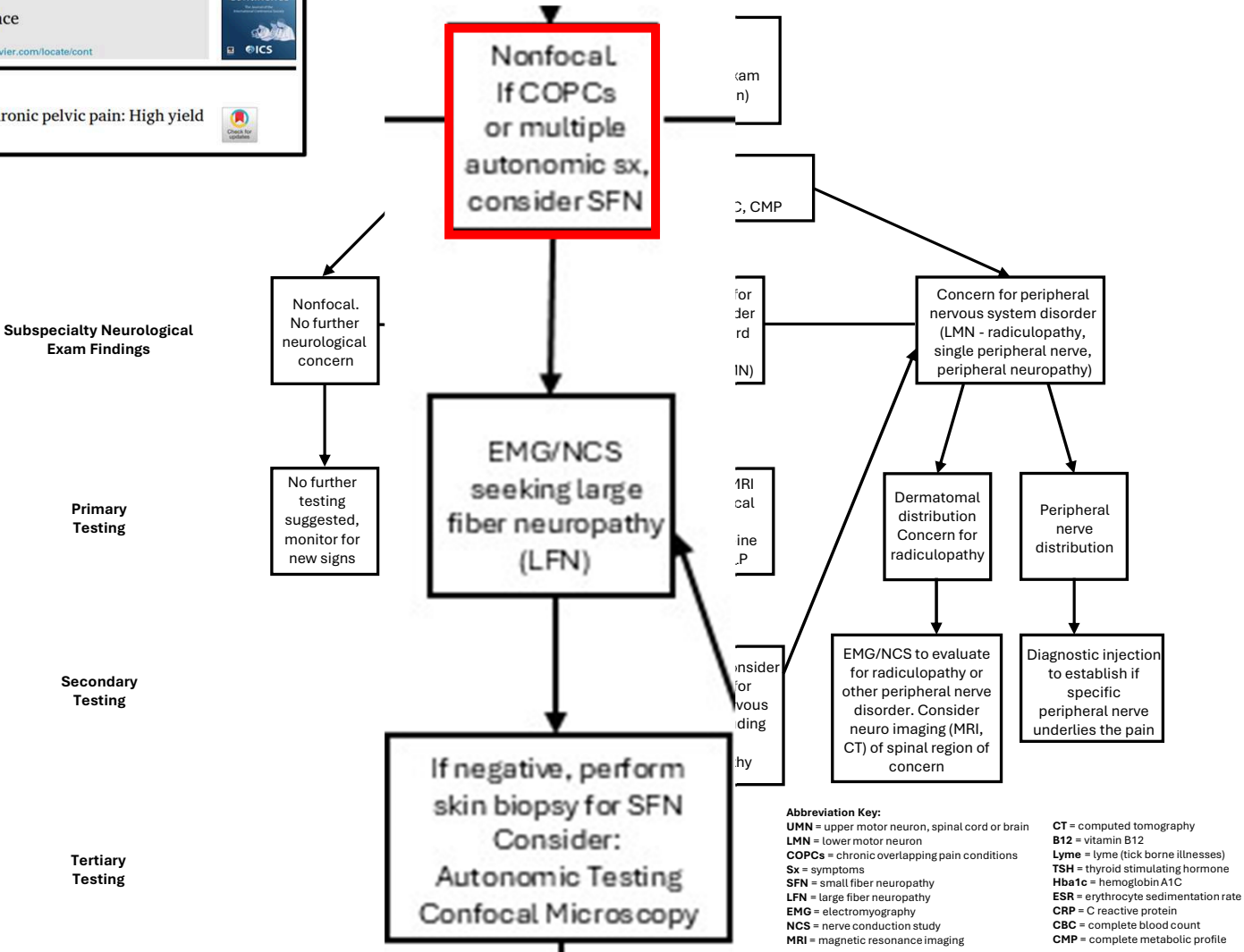
- Hypothyroidism
- Diabetes

Neurologic

- Multiple sclerosis
- Chiari malformation
- Spinal stenosis
- Radiculopathy
- Polyneuropathy
- Fibromyalgia

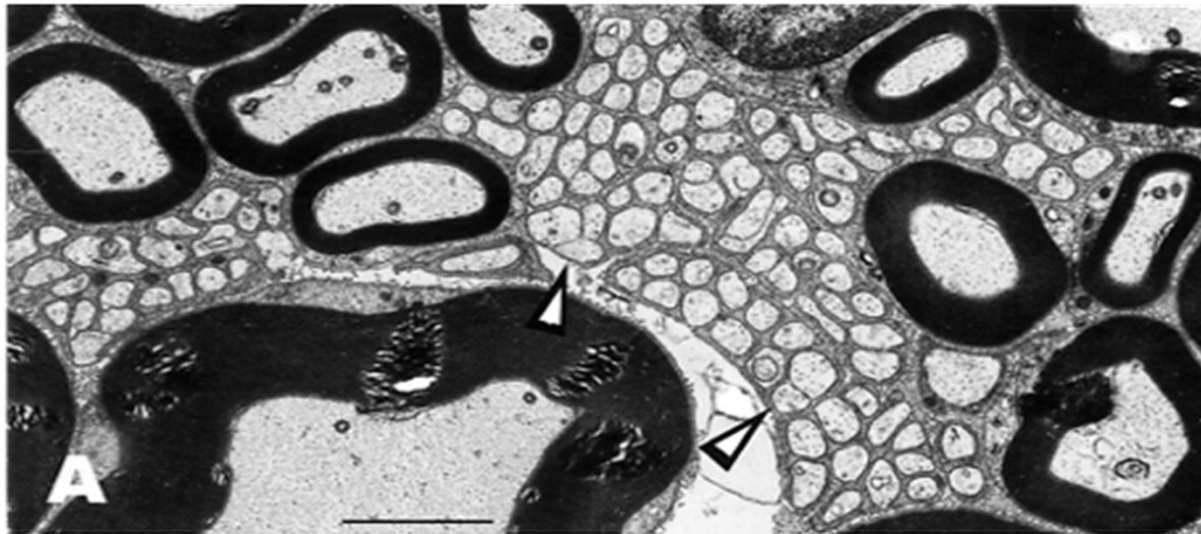
- SMALL FIBER
POLYNEUROPATHY

Figure 2: Neurologist’s Diagnostic Algorithm in people with CPP referred by pelvic health for a positive Neurological Screening.
This is a basic guide, not to replace subspecialty neurological evaluation. Copyright retained by the authors.



Small Fiber Polyneuropathy

Diabetes, Lyme Disease, Gluten Allergy, Sarcoid, Chemotherapeutics, Antibiotics



Journal of Neuropathology and Experimental Neurology Vol. 63, No. 3

Courtesy Khosro Farhad

Sensory Fiber type	Diameter (μm)	Velocity (m/s)	Function
A- δ (Thinly myelinated)	1-5	3-30	Light touch, acute pain and cold temperature
C (Unmyelinated)	<1	<2	Slow pain and heat , post-ganglionic autonomic fibers

Small fiber neuropathy occurs when injury to the peripheral nerves predominantly or entirely affects the small myelinated (A δ) or unmyelinated C fibers

Diffuse Pain Suggests a Systemic Process

Brief Research Report

Small Fiber Polyneuropathy Is Prevalent in Patients Experiencing Complex Chronic Pelvic Pain

Annie Chen, BA,* Elise De, MD,^{1,*} and Charles Argoff, MD¹

Results. Twenty-five of 39 patients (64%) were positive for SFPN. Comorbid conditions noted in our population included gastroesophageal reflux disease.

Pain Medicine 2018 doi:
10.1092/pm/ppy001

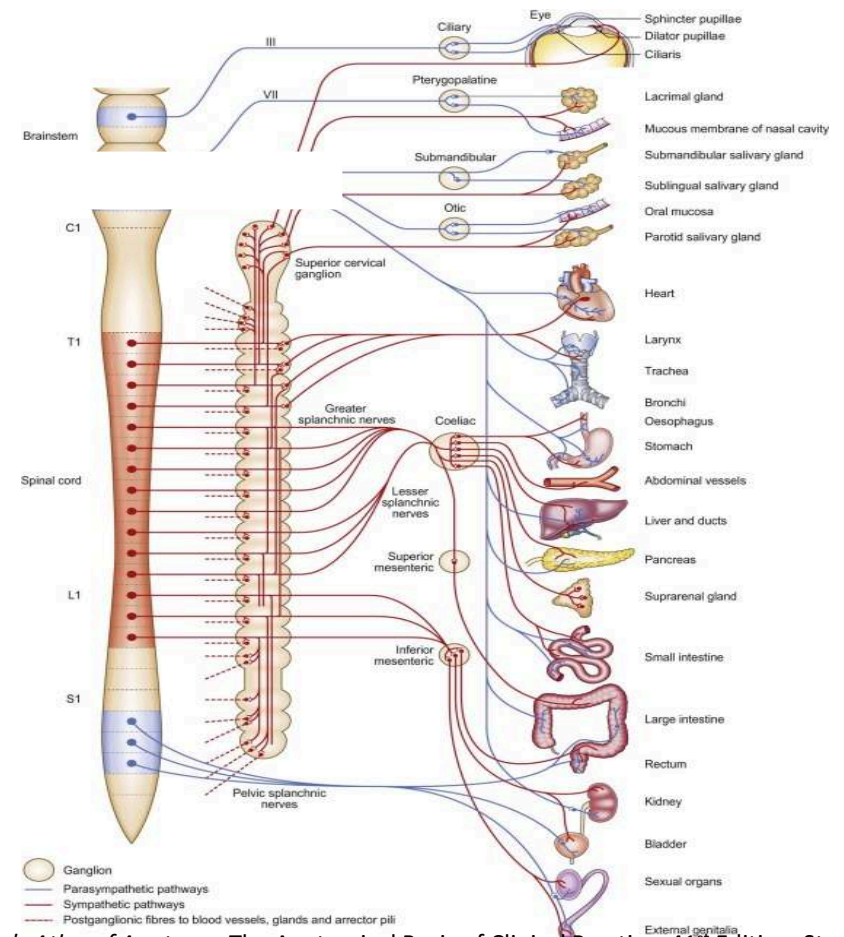
64% (25 of 39) of patients with complex pelvic pain had + biopsy for SFPN

Table 6 Comorbidities in the current population with complex CPP (N = 39) by patient report or chart documentation

Comorbidities

GERD	46%
Migraine	38%
IBS	33%
Lower back pain	33%
FM	28%
Endometriosis	15%
IC	18%
Vulvodynia	5%
Other chronic pain syndromes	36%

CPP = chronic pelvic pain; FM = fibromyalgia; GERD = gastroesophageal reflux disease; IBS = irritable bowel syndrome; IC = interstitial cystitis.



Gray's Atlas of Anatomy. The Anatomical Basis of Clinical Practice. 41st Edition. Standring, Susan MBE, PhD, DSc, FRC, Hon FRCS. Elsevier Limited. Gray's Anatomy. Standring, Susan, MBE, PhD, DSc, FRC, Hon FAS, Hon FRCS. Published January 1, 2016. Pages 225-237.e3. © 2016. Fig. 16.11

Small Fiber Neuropathy Causes

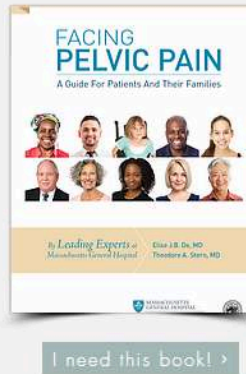
- **Metabolic** : Diabetes, borderline diabetes, thyroid dysfunction (untreated)
- **Autoimmune/inflammatory**: Sjogren's, SLE, RA, sarcoidosis, vasculitis, IBD, others
- **Vitamin/micronutrient related**: B12, B6, B1, E & copper deficiencies / B6 Toxicity
- **Celiac disease and gluten sensitivity, Mast Cell Activation Syndrome**
- **Toxic agents**: Chemotherapeutic agents (Platinum, Taxans, Bortezomib, Vinca Alkaloids), antibiotics (Nitrofurantoin, TMP-SMX, Fluoroquinolones), anti HIV meds, gout meds (Colchicine, Allopurinol), heavy metals (lead, arsenic, mercury, thallium), alcohol
- **Infectious agents**: Lyme, HIV, HSV, VZV, CMV, HCV, HBV, Leprosy
- **Monoclonal gammopathy and paraneoplastic**
- **Amyloidosis**
- **Genetic**: Sodium channel mutations (SCN9A, SCN10A, SCN11A), EDS, other genetic
- **Idiopathic** (30-50%)

Free Multidisciplinary One-Stop Resource
Providers and Patients
www.facingpelvicpain.org



Finding a specialist experienced specifically in pelvic pain can be challenging. But, don't give up! Here are some databases that will help you find the right medical care provider in your area (click the links below):

- [American Urogynecological Society \(AUGS\)](#)
- [American College of Ob-Gyn](#)
- [American Physical Therapy Association](#)
- [Herman Wallace Institute](#)
- [Global Pelvic Health Alliance](#)
- [Endometriosis Association](#)
- [International Foundation for Functional Gastrointestinal Disorders](#)
- [Interstitial Cystitis Network](#)
- [Interstitial Cystitis Association](#)
- [International Pelvic Pain Society](#)
- [Vulvodynia Association](#)
- [Vulvar Pain Foundation](#)
- [Pudendal Neuralgia Association](#)
- [Neuropathy Commons](#)



Tell Me More!

Other Websites Helpful in Pelvic Pain and Pelvic Floor Conditions:

- [World Federation for Incontinence and Pelvic Problems](#)
- [Urology Care Foundation](#)
- [Harvard Medical School Patient Education Center](#)
- [Continence Product Advisor](#)

Elise De, MD

@facingpelvicpain



Cystectomy for Bladder Pain Syndrome:

A Two-Case Clinical Approach

CASE 1

Always Do:
Determine Pelvic Pain is
from Bladder Prior to Cystectomy

CASE 2

Never Miss:
Pyocystis after Cystectomy
With Persistent Pelvic Pain

Brian M. Inouye, MD

Associate Professor of Urology | Albany Medical Center
Reconstructive Urology & GU Cancer Survivorship | @BrianInouyeMD

Disclosures

Laborie: Consultant

Learning Objectives

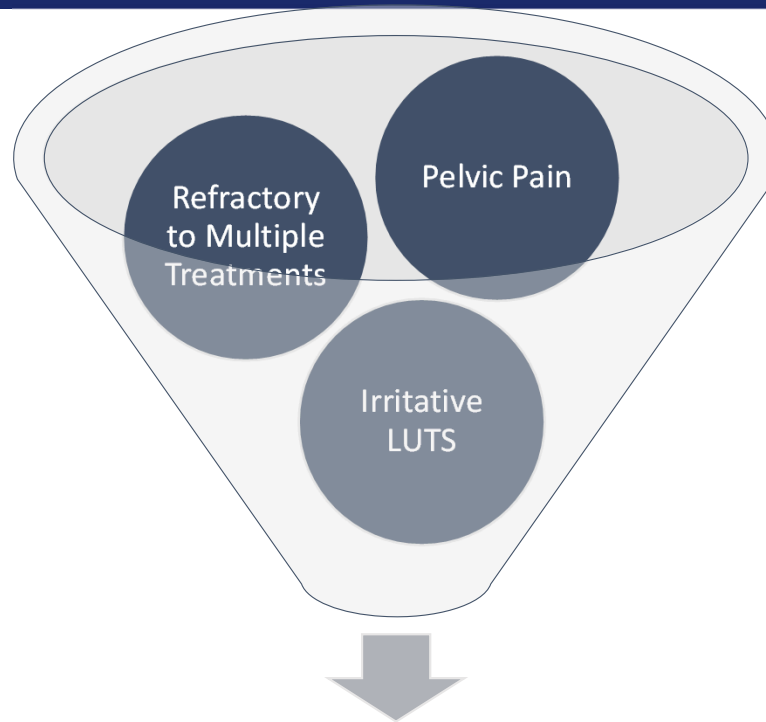
Case 1 — End-Stage IC/BPS

- Recognize critical importance of confirming bladder-origin pain before proceeding to cystectomy
- Apply the preoperative workup framework: PROMs, cystoscopy, urodynamics
- Identify good and poor prognostic factors for pain relief
- Understand my technique for supratrigonal cystectomy + ileal conduit

Case 2 — Persistent Pain After Cystectomy

- Construct a differential and workup for post-cystectomy persistent pelvic pain
- Recognize pyocystis as a diagnosis, its pathogenesis, incidence, and clinical presentation
- Discuss management options including antibiotic therapy, irrigation, and salvage cystectomy

Always Do!



Always Determine Symptoms are from
Bladder Prior to Cystectomy

CASE 1

**End-Stage IC/BPS:
Is the Pain in the
Bladder?**

A 75yo Female with a 3-year history of refractory interstitial cystitis/bladder pain syndrome, having failed medical management, cysto fulguration x3, bladder botox, presents for surgical evaluation due to persistent pain, irritative LUTS, gross hematuria.

In last five years has seen 2 general urologists and 2 URPS-fellowship trained urologists.

Here to discuss cystectomy.

Before We Operate:

**"Is the Pain Truly From the
Bladder?"**

PATIENT SELECTION IS KEY

Workup: History & Risk Stratification

Initial 1-hour consultation

- Co-morbidities requiring perioperative management:
 - Immunosuppression — must optimize prior to surgery
 - Smoking — cessation required
 - Obesity — BMI <34 associated with better outcomes
- Social history — support system for ostomy management
- NSQIP Risk Calculator — give estimate to patient at visit
- Patient completes PROMs

> J Urol. 2023 Jan;209(1):111-120. doi: 10.1097/JU.0000000000002988. Epub 2022 Oct 11.

Obesity and Complication Risk From Radical Cystectomy: Identifying a Body Mass Index Threshold

Louise Catherine McLoughlin^{1 2 3}, Wassim Kassouf⁴, Rodney H Breau⁵, Adrian Fairey⁶, Ramanakumar Agnihotram V⁷, Afsar Salimi⁸, Eric Hyndman⁹, Darrel E Drachenberg¹⁰, Jonathan Izawa¹¹, Bobby Shayegan¹², Jean-Baptiste Lattouf¹³, Michele Lodde¹⁴, Ricardo Rendon¹⁵, D Robert Siemens¹⁶, Claudio Jeldres¹⁷, Peter C Black¹⁸, Girish S Kulkarni¹

ACS NSQIP[®] Surgical Risk Calculator ACS AMERICAN COLLEGE OF SURGEONS

Home About FAQ ACS Website ACS NSQIP Website

Enter Patient and Surgical Information

i Procedure 51590 - Cystectomy, complete, with ureteroileal conduit or sigmoid bladder, including intestine anastomosis; Clear

Build patient rapport!
Minimum 3 in-person visits (one multi-d) before OR

Workup: Localizing the Pain to the Bladder

Patient-Reported Outcomes Measures

- ICSI/ICPI (score 0-20, 0-16, LUTS/QoL)
 - BPS diagnosis threshold: ICSI ≥ 4
 - Surgical consideration: ICSI ≥ 7
- GUPI (score 0-45, assesses pain/LUTS/QoL)
 - No studies to establish threshold for treatment
- SF-12: Physical & Mental Composite Scores

Objective Localization

- Awake vs. asleep cystoscopy
 - Hunner lesions: 28/34 (82%) with lesions had symptom resolution vs. 3/13 (23%) without (Rössberger et al., 2007)
- Urodynamics
 - Pain reproduced on CMG or pressure-flow study confirms bladder origin
- Local anesthetic bladder instillation
 - Temporary relief = favorable prognostic sign

Also obtain: Cross-sectional imaging (hernia, hydronephrosis) | Albumin | Urine culture

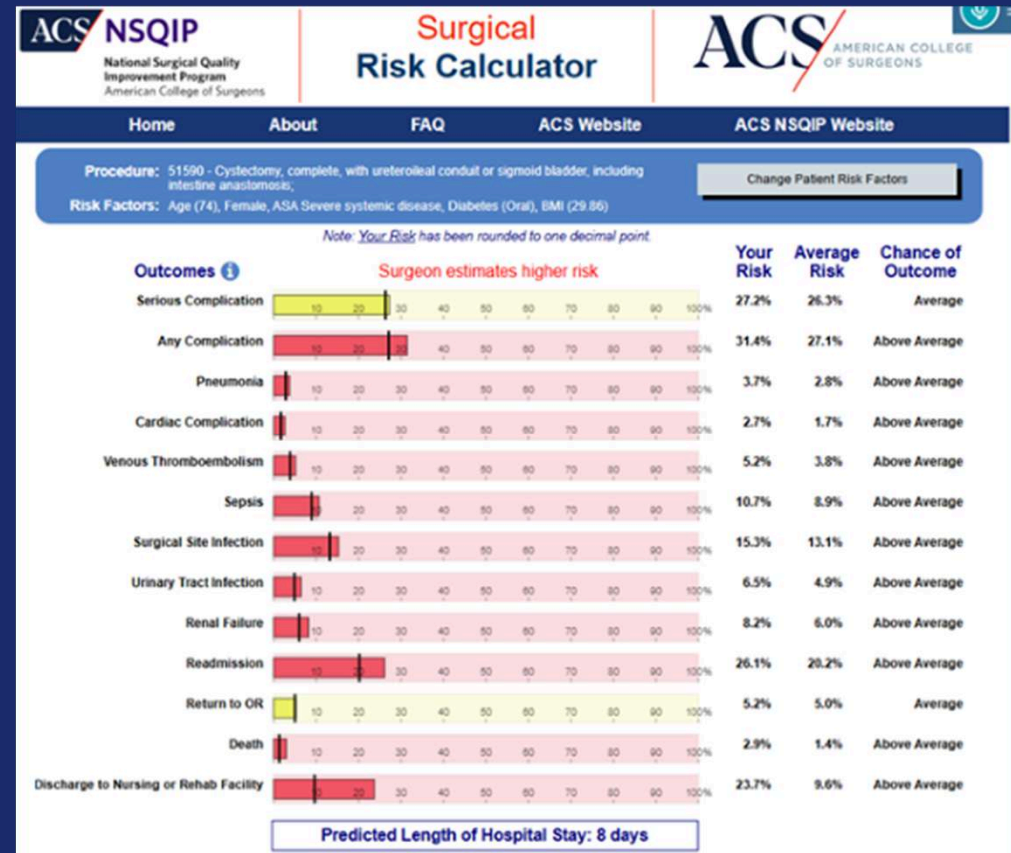
Case 1: Key Findings During Workup

Healthy-ish and Bothered

- Only major co-morbidity: DM
- BMI: 29 | Albumin: 4.1
- ICSI score: 13 (threshold ≥ 7 for surgical consideration)
- SF-12 PCS: 27.7 / MCS: 50.7

Pain Localized to Bladder

- Cystoscopy: Small capacity, pain, +Hunner's lesions
- Bladder capacity under anesthesia: n/a
- Urodynamics: Increased sensation, normal compliance, reduced capacity secondary to pain with bilateral VUR



Prognostic Factors: Who Does Well?

✓ FAVORABLE

- **Must have EXHAUSTED all other treatment options**
- Hunner lesions present
 - 82% vs 23% symptom resolution (Rössberger 2007)
- End-stage fibrotic bladder (small capacity under anesthesia)
 - <200cc under anesthesia: 100% improvement with diversion (Redmond & Flood, 2017)
- Temporary pain relief with local anesthetic instillation

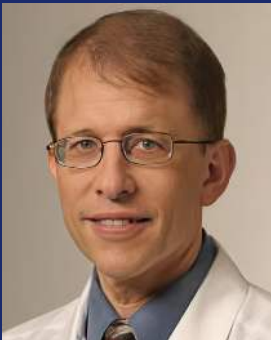
✗ UNFAVORABLE

- No Hunner lesions
- Large bladder capacity under anesthesia
- Long preoperative symptom duration
 - Pain after surgery: 12.1 yrs preop symptoms vs 5.4 yrs in improved patients (p=0.02)
- Unaddressed mental health / central sensitization
- Inadequate preoperative multidisciplinary team engagement

You Need a Team

- Primary Care
- Pain Management
- Neurology
- Psychiatry / Psychology
- Physical Medicine & Rehabilitation
- Pelvic Floor Physical Therapy

- Neuro-Urologist
- Geriatrician
- Wound Ostomy Nursing
- Infectious Disease (as needed)
- Nutrition / Dietetics



Charles Argoff, MD
Neurology



Elise De, MD
Neuro-urology



Andy Coates, MD
Geriatrics



Jody Scardillo, DNP
Wound Ostomy

Before We Operate:

“Which Surgical Option Should We Choose?”



Surgical Options: Comparing Approaches

Supratrigonal Cystectomy + Augmentation

PRO

Orthotopic voiding
No ureteral work

77% combined success
(170 pts, 11 studies)

CON

Metabolic changes
Risk of perforation
Possible CIC
Persistent bladder

Diversion Without Cystectomy

PRO

Fastest procedure

77% combined success
(70 patients, 4 studies)

CON

Persistent bladder
Need for ostomy appliance/cathing
Ureteral work

23% required secondary cystectomy for
pyocystis or pain

Cystectomy + Ileal Conduit (My Preference)

PRO

Bladder removed

81% combined success
(26 pts, 4 studies)

CON

Need for ostomy appliance/cathing
Ureteral work
Longer procedure

Even 34 high-volume BPS surgeons did not agree! (Gershbaum, Moldwin 2001)

My BPS Cystectomy + Ileal Conduit: Preoperative

- Perioperative antibiotics
 - Urine culture-directed, or cefazolin
- DVT prophylaxis: Heparin + SCDs
- Positioning
 - Supine (add frog-leg for urethral catheter in females)
- Tubes: Cap PCNs if present — leave perioperatively
- Skin prep: Chlorhexidine + isopropyl alcohol (ChloraPrep)

How I Do the Cystectomy

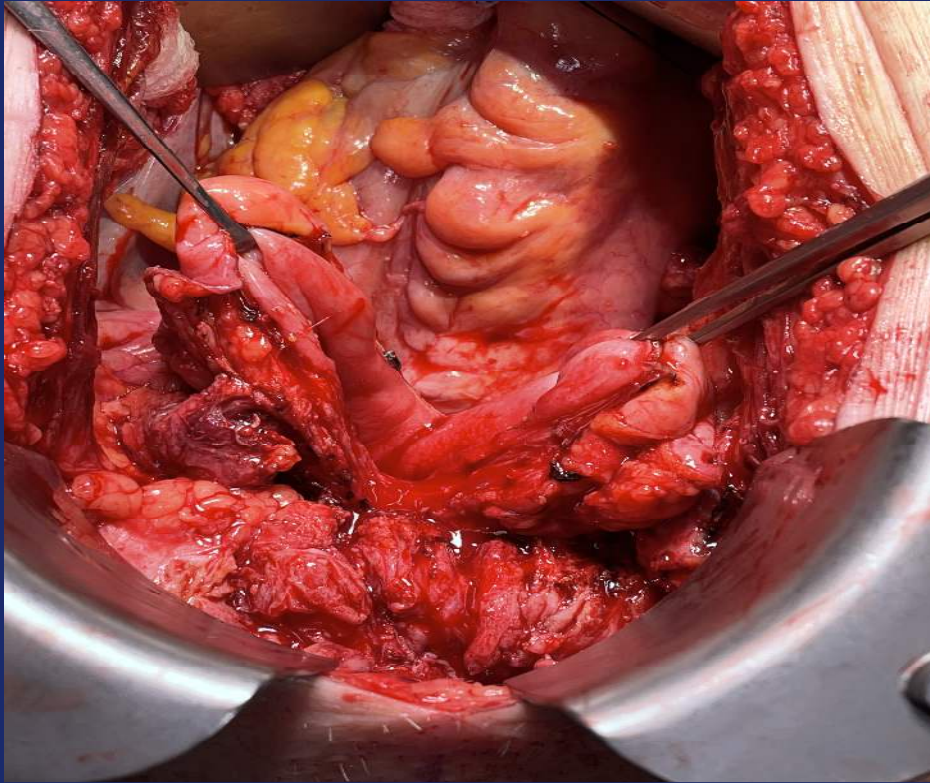
Choice of approach

- Simple cystectomy: if not inflamed and can create retrovesical plane
- Supratrigonal cystectomy: significant inflammation, history of XRT / vaginal / bowel surgery

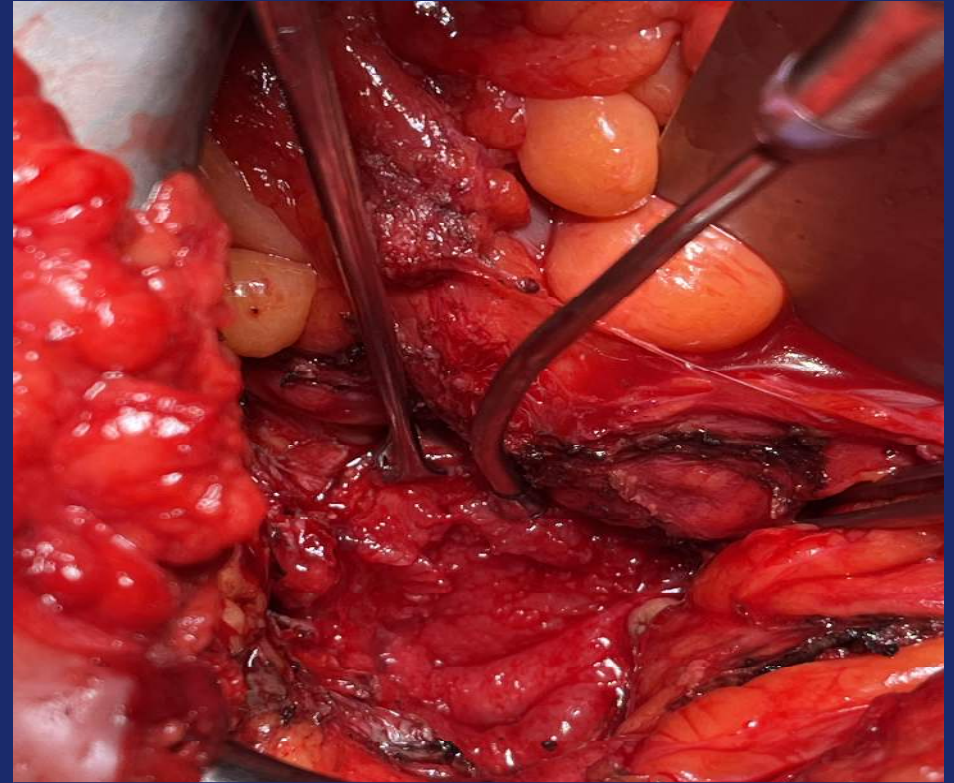
Supratrigonal technique

- Drop bladder, free posterior peritoneum
- Bivalve anterior then posterior bladder wall
- Remove bladder wings and any remaining posterior wall
- Sharply denude OR ablate remaining subtrigonal urothelium
- Close remaining detrusor to prevent postop leakage
- Omental or posterior peritoneal flap to fill pelvic fossa
- Ureters: Diagnostic bilateral ureteroscopy → Wallace anastomosis for ileal conduit

Intraoperative: Dropping the Bladder / Bivalve



Dropping bladder, freeing posterior peritoneum



Bivalve — anterior & posterior bladder walls

Intraoperative: Removing Bladder Wings & Posterior Wall



Removing bladder wings



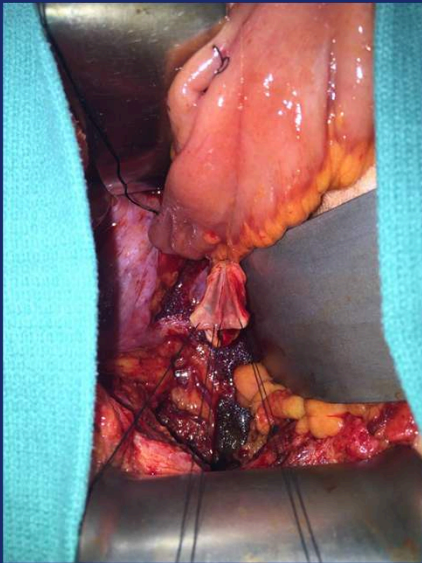
Ablating remaining urothelium

How I Manage Ureters

Step 1: Diagnostic bilateral ureteroscopy

- Evaluate urothelium prior to diversion

Step 2: Wallace anastomosis for ileal conduit



My BPS Cystectomy + Ileal Conduit: Postoperative

- ERAS protocol
- Typical LOS: 5–7 days
- Post-op visit: 2 weeks after discharge
- Remove ureteral stents at 2-week visit
- 1-month follow-up:
 - BMP, B12, Renal US, PROMs

Case 1: Postoperative Course Usually Rocky

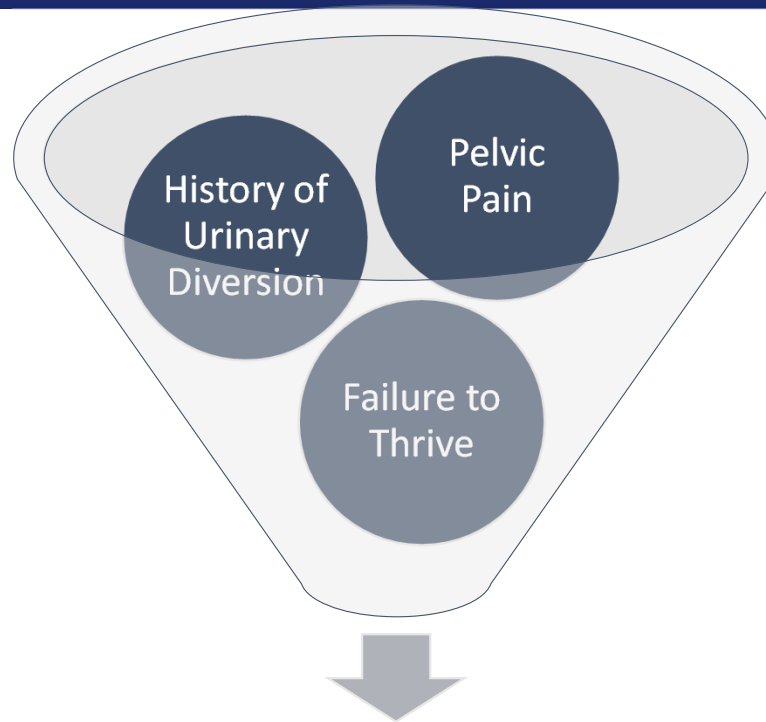
Postoperative course:

- POD 7: Discharged
- POD 28: ED presentation after slipping on bath mat and admitted for broken hip requiring surgery. Discharged to rehab 3 days later.
- POD 84: ED presentation for chills found to have UTI. New hydro with neg Lasix renal scan. Discharged 2 days later.

Teaching point: What made this patient the right candidate?

- Bothered
- Hunner lesions
- Small capacity bladder with reflux

Never Miss!



Rule Out Pyocystis

CASE 2

Persistent Pain After Cystectomy: Workup for Pyocystis

A 70yo Male presents to ED with prior supratrigonal cystectomy + ileal conduit for IC/BPS presents with 3 months of recurrent/persistent pelvic pain, urethral discharge, failure to thrive.

Case 2: What to Do Next?

Differential

- UTI/Pyelo
- Wound infection
- Pelvic hematoma/seroma
- Abscess
- Metabolic acidosis
- Pyocystis
- Osteomyelitis
- Bladder spasms
- Urothelial carcinoma
- Pelvic floor dysfunction

What to Do?

- Physical Exam: Normal
- UA/UCx: Mixed flora
- WBC: 13
- Blood cultures: Negative
- CT:



What Is Pyocystis?

Pyocystis (also: vesical empyema, empyema cystis)

- Infected, pus-filled defunctionalized bladder — a severe form of lower UTI

Pathogenesis

- Without urine flow, shed bladder epithelium accumulates and becomes infected
- Also: retrograde prostatic secretion pooling (men), osmotic water transfer

At-risk populations

- Supravesical urinary diversion with bladder left in situ (IC, neurogenic, radiation, hemorrhagic cystitis)
- End-stage renal disease with anuria
 - Higher risk: dialysis patients, immunosuppressed, prior *Proteus mirabilis*

Pyocystis: Incidence & Why It Matters

24%

Pyocystis incidence after ileal conduit for benign disease

Mankaryous et al. / ICS 2018 (n=81)

38%

Pyocystis incidence in updated cohort

ICS 2021 (n=106 pts, 1998–2019)

95%

of pyocystis cases ultimately required cystectomy

Conservative Tx almost always fails (ICS 2018)

3–67%

Reported incidence range across populations

Up to 67% in previously irradiated bladders

Onset typically at 42 months post-diversion (range 1–408 months) — always consider in late presentations

Pyocystis: Clinical Presentation

Classic symptom triad (ICS 2021 cohort, n=40 pyocystis cases):

- Urethral discharge — malodorous, purulent
 - 92.5% of pyocystis patients in ICS 2021 cohort
- Suprapubic pain with bladder spasms
 - 57.5% of patients (ICS 2021)
- Fevers / systemic sepsis
 - 30% developed acute infection or sepsis — can be fatal

Key clinical pearl:

- Patient or team may be unaware bladder remains in situ — always confirm anatomy before dismissing the bladder as a source in unexplained sepsis after diversion

Workup: Ruling Out Pyocystis

Step 1: Labs	Step 2: Imaging	Step 3: Cystoscopy of Remnant	Step 4: Drain Remnant
CBC (leukocytosis) CRP / ESR Blood cultures BMP / renal function	CT abdomen/pelvis — Thickened bladder wall — Fluid-debris level — Pelvic collection Renal ultrasound	Direct visualization Biopsy to rule out malignancy in defunctionalized bladder	Urethral or SP catheter Drain purulent content and send for: Culture Cytology

Consider malignancy in the defunctionalized bladder — risk increases over time without surveillance

Management of Pyocystis

Conservative (for mild/initial presentation)

- Broad-spectrum IV antibiotics (culture-directed when available)
- Urethral or suprapubic catheter drainage of remnant bladder
- Intermittent bladder irrigation / washout

Definitive (conservative almost always fails)

- Remnant bladder cystectomy — required in 95% of pyocystis cases (ICS 2018)

Case 2: Long-Term Drains Sometimes Work

Course:

- Cysto normal
- Perc drain by IR x4w with abx x6w
- Resolved, no recurrence

Teaching point: Even with history of pelvic pain, think infectious etiology after cystectomy

- Cysto and CT are mainstays of workup

Key Takeaways

CASE 1

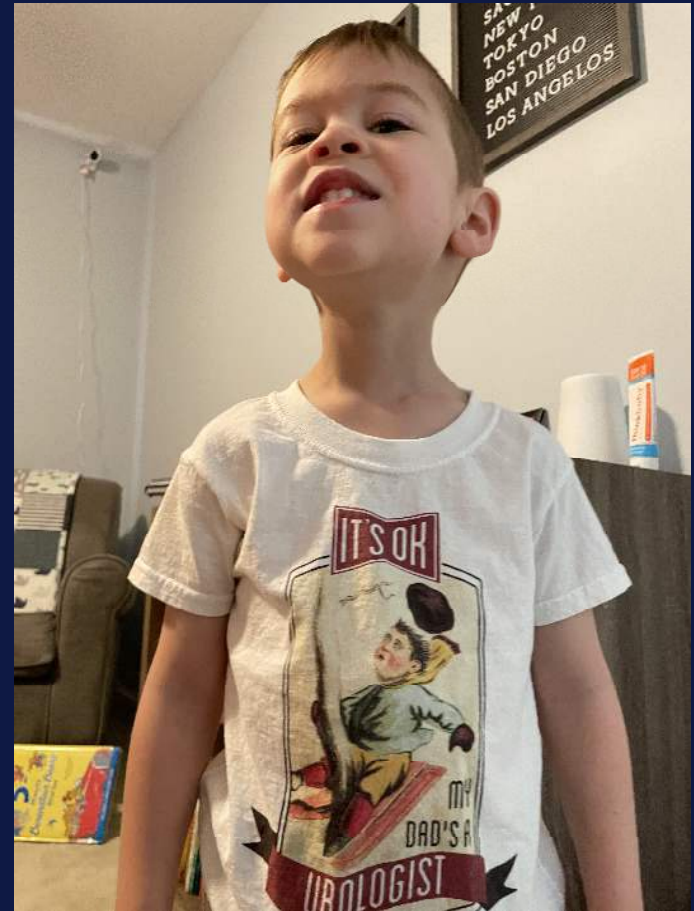
- **Patient selection is KEY**
- Confirm bladder-origin pain before operating
- Hunner lesions: major favorable prognostic factor
- No best surgical technique for BPS
- Get a multidisciplinary team

CASE 2

- **Always confirm bladder anatomy after diversion**
- Diagnosis of pyocystitis: CT, cysto, catheter drainage + culture, cystoscopy
- Treat conservatively but ultimately may require extirpative therapy

Thank You!

Questions?
inouyeb@amc.edu



AUA
2026
Washington, DC

MAY 15-18

**Always do Targeted therapies
for Chronic Scrotal Content Pain**



**Never miss Upper Tract
Pathology**

Sijo Parekattil MD

Avant Concierge Urology

Associate Professor, University of Central Florida

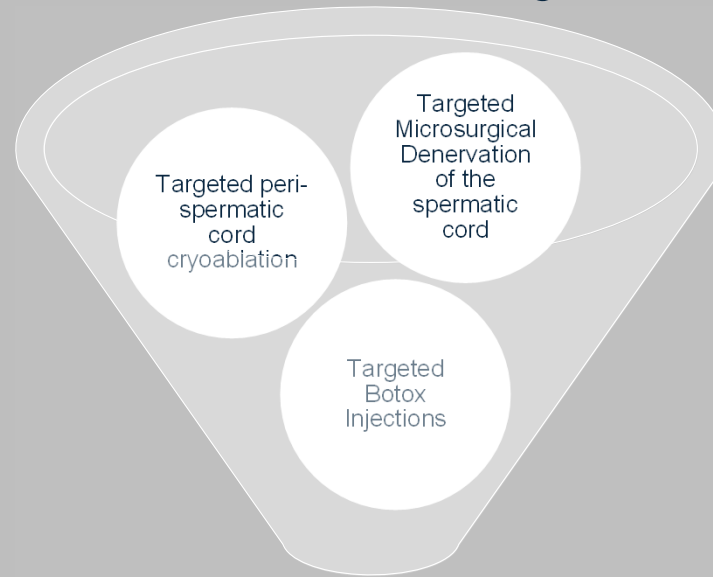
Associate Professor, Orlando College of Osteopathic Medicine

Past President, Florida Urological Society

Disclosures

None

Case – Always Do



Always Perform Targeted Therapies
rather than extirpative surgeries



Case 1: Neuropathic Chronic Orchialgia

- 42 y/o male with chronic right testicular & groin pain since 2001, dull achiness in the testicle, more pronounced in the right epididymis
- Scrotal ultrasound: left varicocele
- CT abdomen/pelvis: negative
- s/p Right spermatic cord block – gave him temporary relief in his pain for a few hours
- COSI score: P15/17 S0/5 Q8/15

Pathophysiology

- Wallerian degeneration in peripheral nerves has been previously identified as a cause of chronic pain in other areas of the body such as the extremities¹
- Thus, the ligation, ablation or neuro-modulation of these nerve fibers may explain the benefit of various targeted therapies in CSP patients
- Oka et al.² have performed an eloquent study illustrating the complex innervation of the spermatic cord - interplay of nerve branches from ilioinguinal, ilio-hypogastric, genitofemoral and inferior hypogastric nerves

¹Ko et al., Int J Mol Sci. 2015

²Oka et al., J Urol. 2016

Pathophysiology

- Parekattil et al.,¹ identified a trifecta nerve complex that may explain the rationale for pain in CSP patients
 - Study compared spermatic cord biopsy specimens of men undergoing MDSC (57 cases) for CSP versus a control group of men without pain undergoing spermatic cord surgery (10 cases: 4 varicocelectomies and 6 radical orchiectomies)
 - **84%** (48/57) of the CSP patients had Wallerian degeneration in at least one or more of these nerves
 - Only **20%** of the control group patients (2/10) had Wallerian degeneration, (**p=0.0008**)

¹Parekattil et al., J Urol. 2013

Pathophysiology

- 3 primary locations (the trifecta nerve complex) for these changes:¹
 - cremasteric muscle fibers
 - peri-vasal tissues and vasal sheath, and
 - posterior cord lipomatous tissues
- 3 human cadaver spermatic cord dissections were performed to confirm localization of the nerve distribution identified on pathology mapping¹
- This is the first study to actually define a significant structural difference in the spermatic cord neuro-anatomy between CSP patients and non-CSP controls¹

¹Parekattil et al., J Urol. 2013

COSI Score

Chronic Orchialgia Symptom Index

Pain Symptoms

1. When you have testicle pain, do you also feel it in your groin (area above testicle)?
No __ (0) Yes __ (1)

2. Would you describe your testicle pain as burning?
No __ (0) Yes __ (1)

3. Does your testicular pain wake you up at night?
Never __ (0), Sometimes __ (1) Always __ (2)

4. In the past week how often did you feel pain in your testicle?
Never __ (0), Occasionally __ (1), Usually __ (2), Always __ (3)

5. What number best describes your MINIMUM (lowest) testicle pain in the past week?
0__ 1__ 2__ 3__ 4__ 5__
None Mild Worst pain imaginable

6. What number best describes your MAXIMUM (highest) testicle pain in the past week?
0__ 1__ 2__ 3__ 4__ 5__
None Mild Worst pain imaginable

Sexual Symptoms

7. In the past week how often have you had difficulty achieving or maintaining an erection?
Never (eg. you have normal erections) __ (0), Sometimes __ (1), Always __ (2)

8. In the past week, has your desire to have sex (libido) been lower than normal for you?
No __ (0), Yes __ (1)

9. In the past week have sexual activities been painful?
No __ (0), Sometimes __ (1), Always __ (2)

Quality of Life

10. In the past week, how much has your testicular pain prevented you from working or doing your normal daytime activities?
0__ 1__ 2__ 3__ 4__ 5__
None A little Sometimes Often Usually Completely

11. In the past week, how much has your testicular pain prevented you from doing leisure activities you enjoy?
0__ 1__ 2__ 3__ 4__ 5__
None A little Sometimes Often Usually Completely

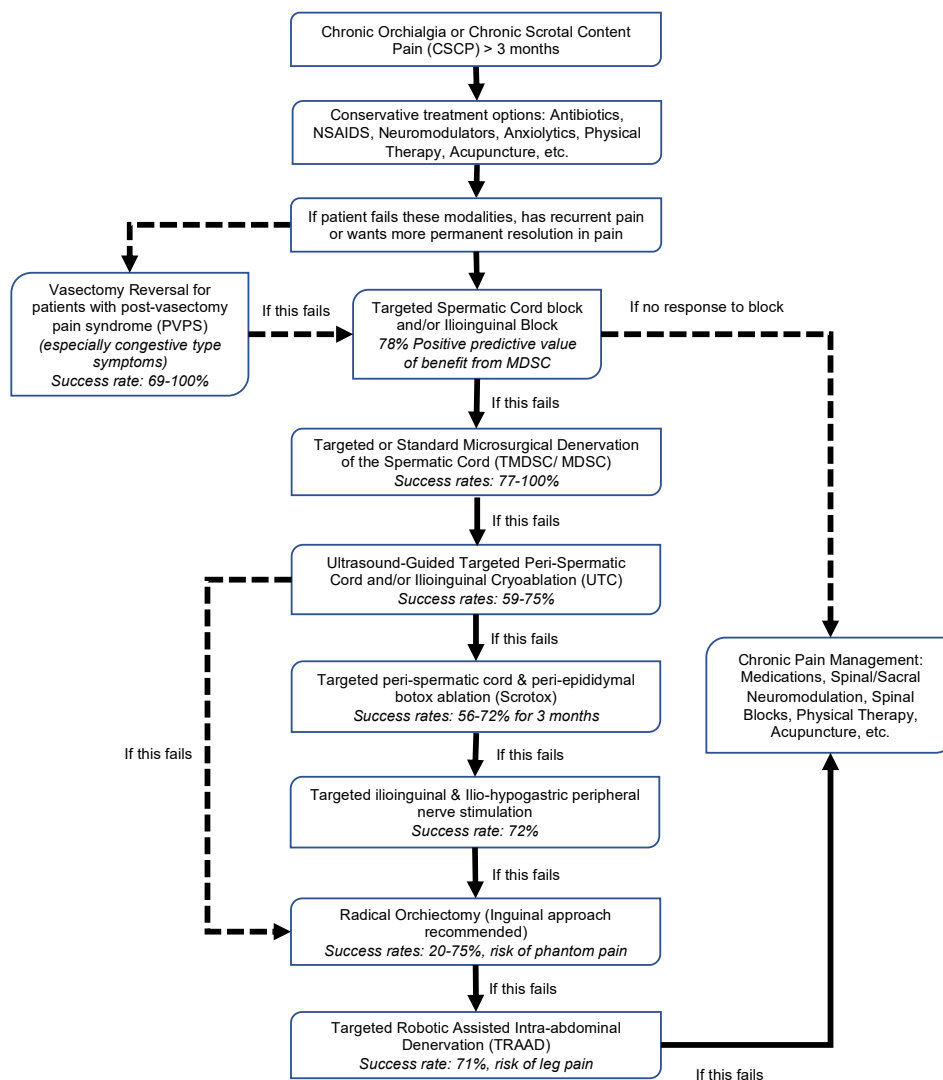
12. If nothing changed and your symptoms remained this way for the rest of your life, how would you feel?
0__ 1__ 2__ 3__ 4__ 5__
Delighted Pleased Mostly Satisfied Mixed Unhappy Miserable

Score: Pain (Q 1-6) __ Sexual (Q 7-9) __ QOL (Q 10-12) __

Shoskes DA et al. **Urology** 2018;119:39–43.
Shoskes DA et al. **J Urol** 2018;199(S4):e1159.
Polackwich et al., *Transl Androl Urol*. 2018

Treatment Algorithm¹

¹Parekattil et al.,
Research and Reports
in Urology 2020



Posterior inferior scrotal denervation

Low intensity shock wave lithotripsy



Office based Targeted Microsurgical Denervation of the spermatic cord

- Retrospectively review:
 - 244 cases who underwent office based targeted microsurgical denervation (OTMDSC) of the spermatic cord from November 2020 to October 2024
 - Median follow-up of 20 months (range 1 to 29)
 - **84%** showed a significant reduction in pain
 - 62% had complete resolution in pain
 - 22% had 50% or > reduction in pain
 - 16% had no change in pain by subjective visual analog scale scoring

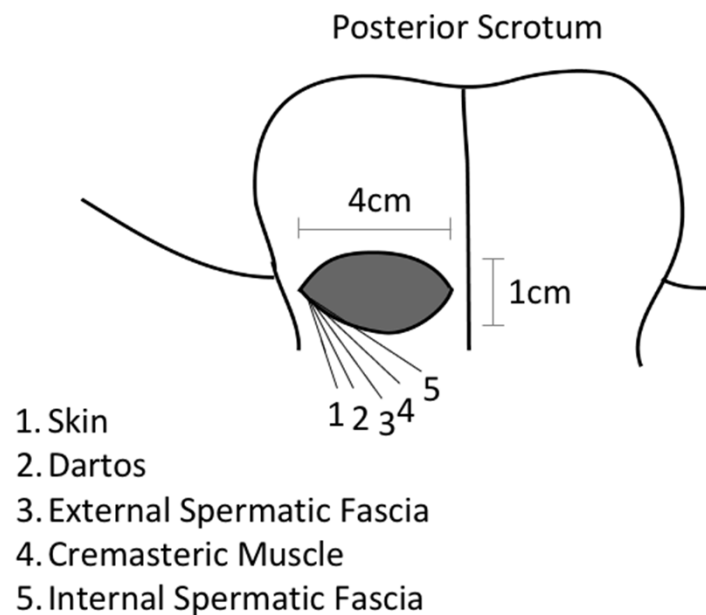
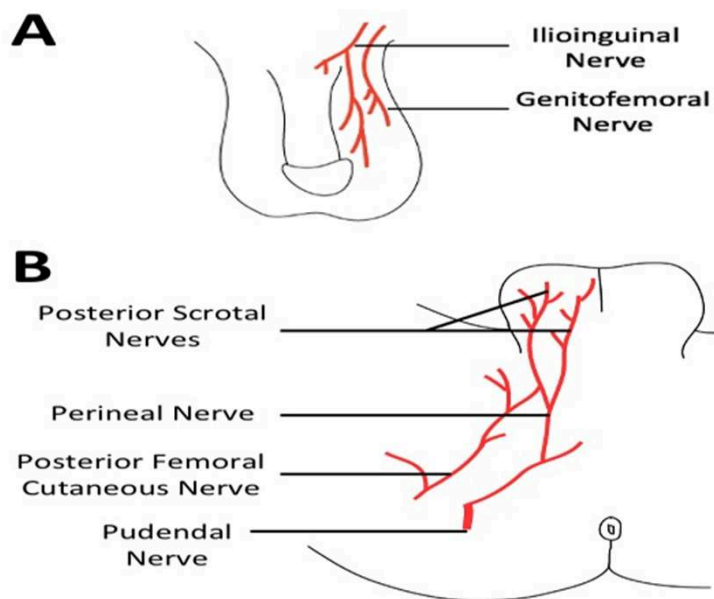


Bilateral Targeted Neurolysis and Varicoselectomy

Sijo J. Parekattil, MD



Posterior-Inferior Scrotal Nerve Block (PISB) & Posterior-Inferior Scrotal Denervation (PISD)¹



¹ Sergey Kravchick et al., 2023

Office-Based Salvage Ultrasound-Guided Peri-Spermatic Cord Cryoablation

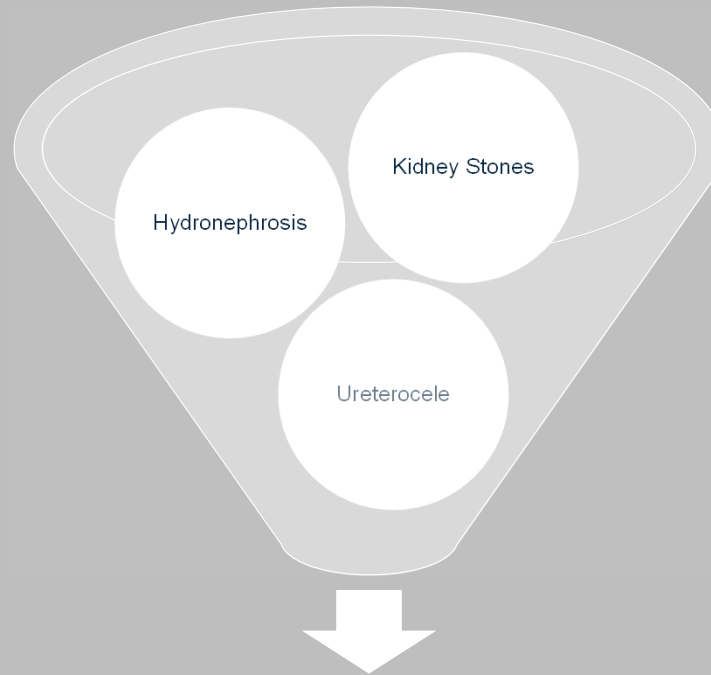
- Prospective cohort study:
 - 106 cases (82 patients): Jan 2021 to Oct 2024
 - Single office-based operating room under IV sedation
 - Single experienced surgeon
 - Pre- and post-op Chronic Orchialgia Symptom Index (COSI) scores were assessed
 - Cooper Surgical Cryo Plus Nitrous Gas System
 - -89 deg F freeze - one freeze/thaw cycle
 - Realtime ultrasound doppler imaging
- Results:
 - Mean follow-up time: 25 months (1 month - 45 months)
 - Mean preoperative COSI Score: 22
 - Mean postoperative COSI Score: 14
 - **76%** all of patients reported significant improvement in pain postop
 - Complications:
 - Localized postoperative wound infection (3 patients, 3.6%)



AVANT
CONCIERGE UROLOGY



Case – Never Miss



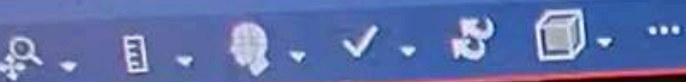
Never Miss Upper Tract Pathology



Case 2: Referred Chronic Orchialgia

- 34 y/o male with Chronic left testicular/groin/pelvic pain, since 2023 after lifting heavy item, constant squeezing pain, worsening w/ physical activity and intercourse
- COSI P8 S4 Q8
- Scrotal ultrasound: left varicocele
- CT abdomen/pelvis: 7mm right mid ureteral stone with minimal hydronephrosis

Gender: F DOB: Mar 14, 1997 (28 Y) 508491464



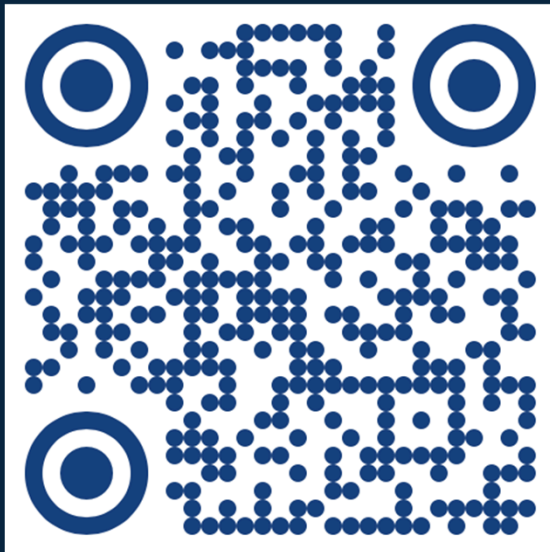
Sijo Parekattil MD

Avant Concierge Urology

Associate Professor, University of Central Florida

Associate Professor, Orlando College of Osteopathic Medicine

Past President, Florida Urological Society



@drparekattil



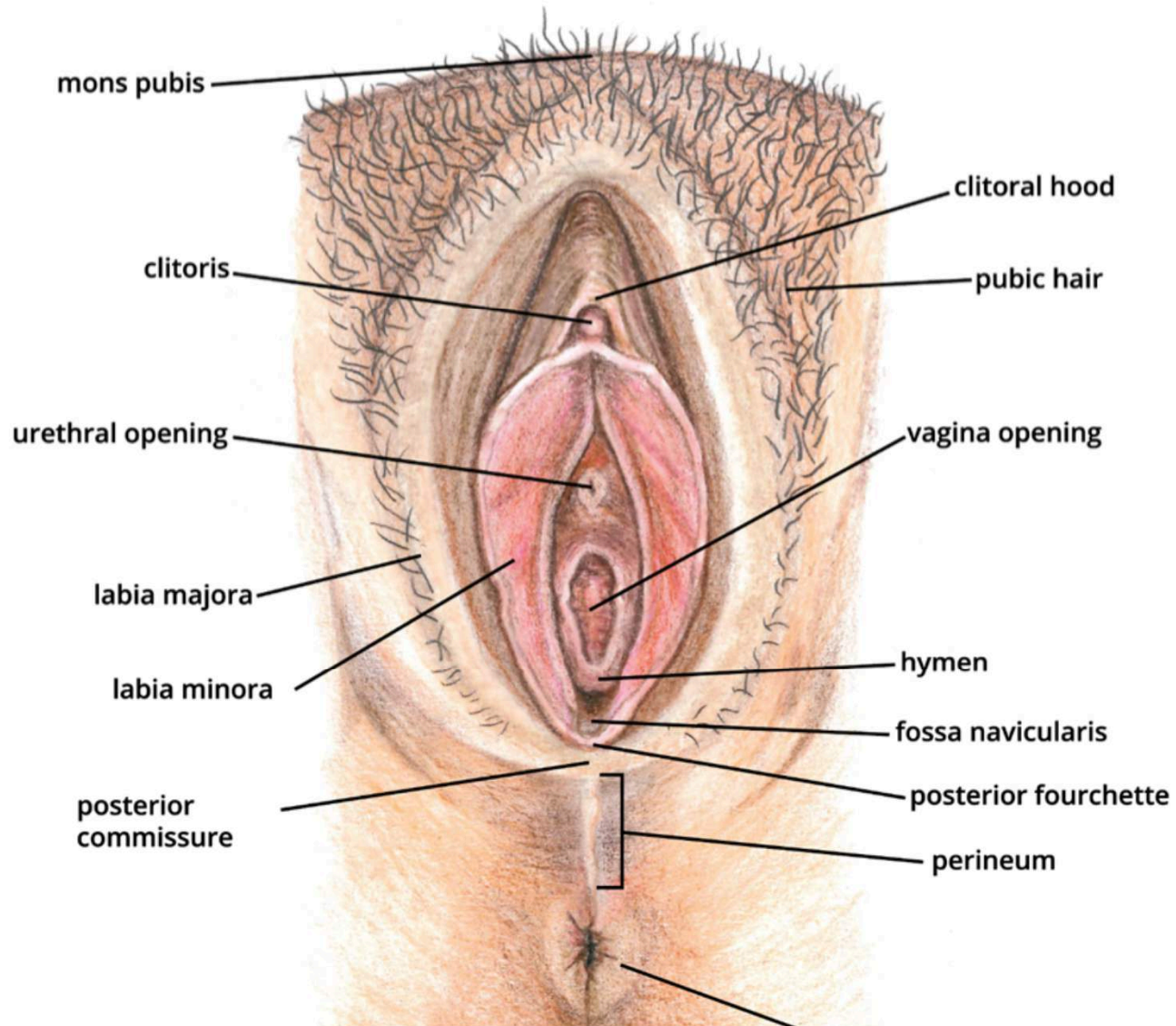
TIPS FROM THE GYNECOLOGIST

Jennifer Pollard, MD, FACOG

*Assistant Professor
Albany Medical College
Department of Obstetrics &
Gynecology*

ALWAYS DO:

Examine the vulva

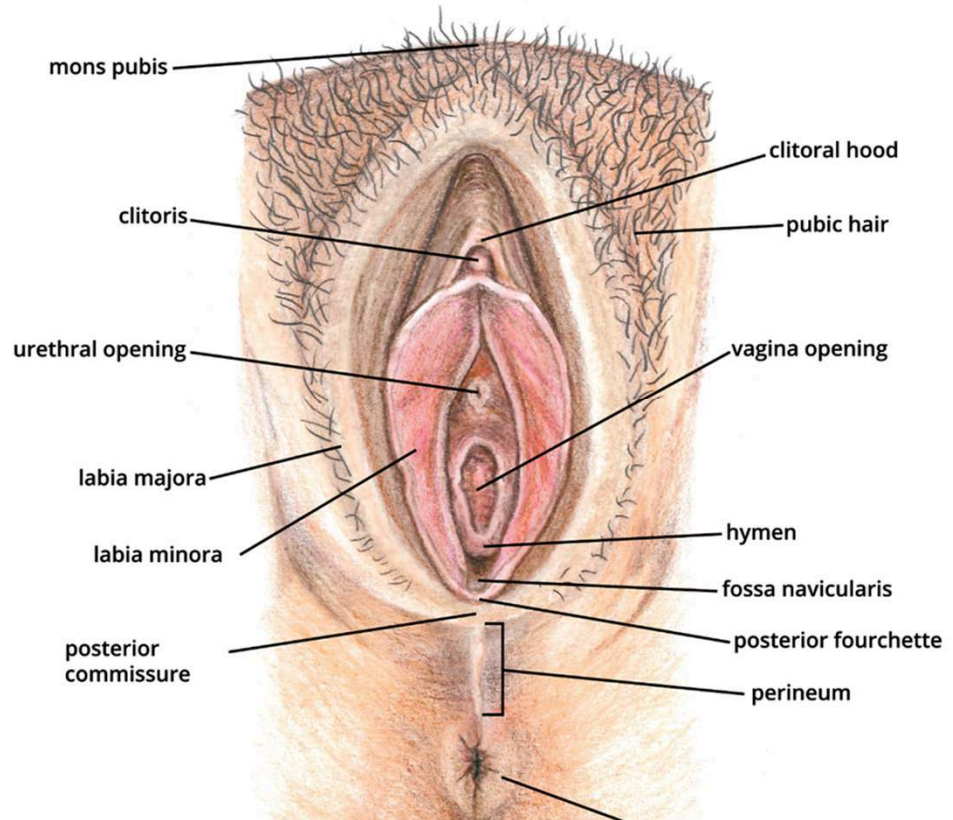


Vulvar Anatomy

*Image from the Texas
Evidence Collection
Protocol –
Texas A&M University*

Most common causes of vulvar pain

- Vulvovaginal candidiasis
- STIs (e.g. herpes virus)
- Contact dermatitis
- Vulvodynia
- Vulvovaginal atrophy
- Vulvar dermatoses



*Image from the Texas Evidence Collection Protocol –
Texas A&M University*

Most common causes of vulvar pain

- Vulvovaginal candidiasis
- STIs (e.g. herpes virus)
- Contact dermatitis
- Vulvodynia → *diagnosis of exclusion*
- Vulvovaginal atrophy
- Vulvar dermatoses

Rule out infectious etiology:

Yeast culture

Herpes virus PCR (from lesion)

Gonorrhea, chlamydia, trichomonas PCR

Review proper vulvar hygiene practices

Thorough vulvar exam

Case: Vulvar Pain

62 yo female presents with dysuria & vulvar/vaginal burning and itching.

VULVAR EXAM FINDINGS

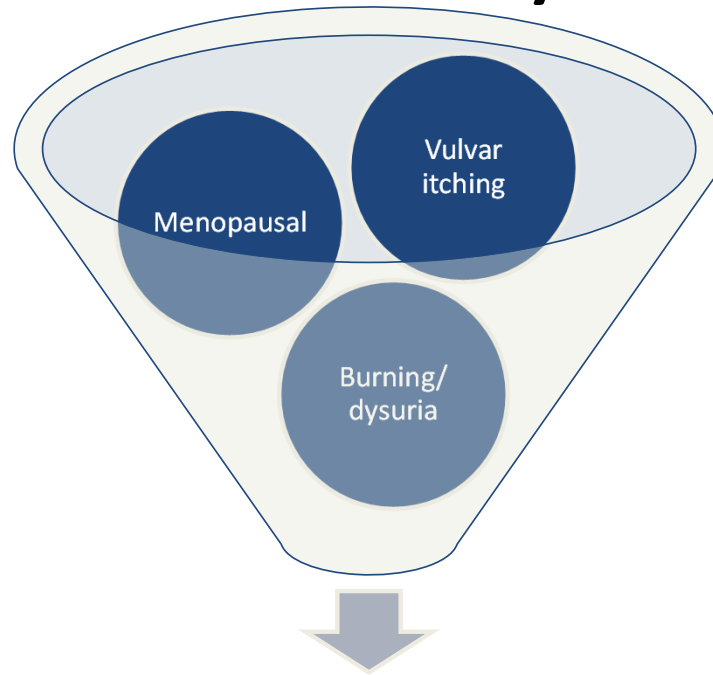
Skin whitening

Erythema

Skin thinning



Case – Always Do



Rule out lichen sclerosus

Lichen Sclerosus

SYMPTOMS

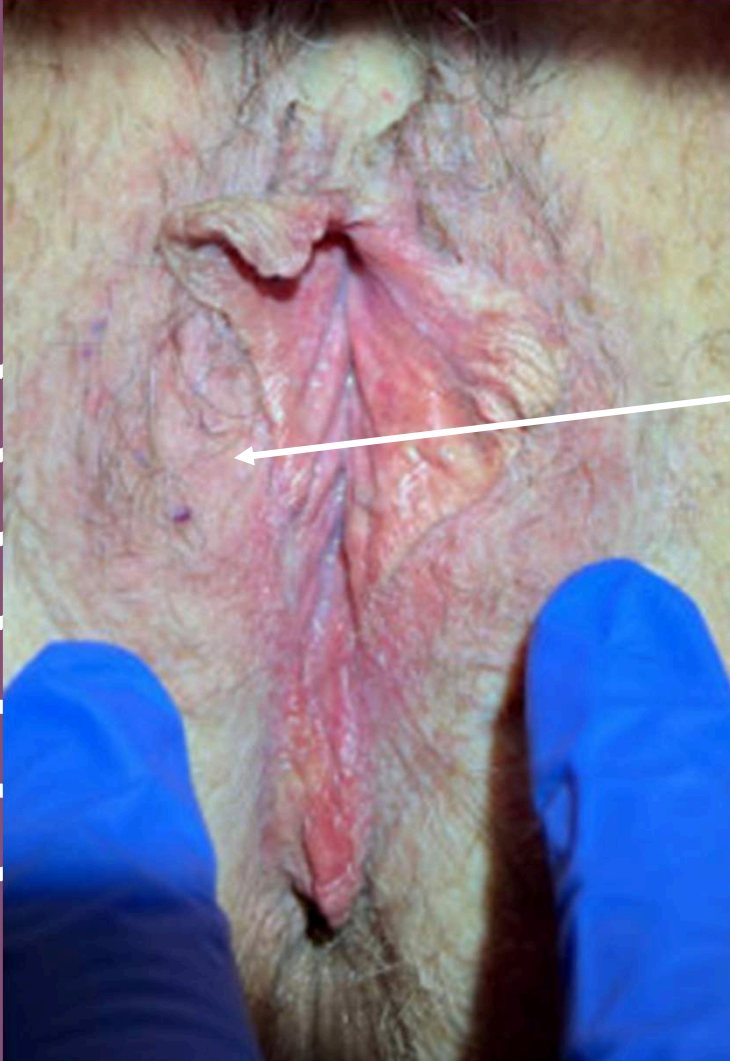
Vulvar, vaginal, and/or perianal
itching (may be intense)
Pain, burning sensation
Anal discomfort
Skin damage, bleeding
Dysuria & dyspareunia



EXAM FINDINGS

Skin whitening
Erythema
Skin thinning
Fusion of labia minora with vulva
Atrophic clitoris
Narrowing of the introitus
Bridging of tissue at posterior
fourchette

Lichen Sclerosus

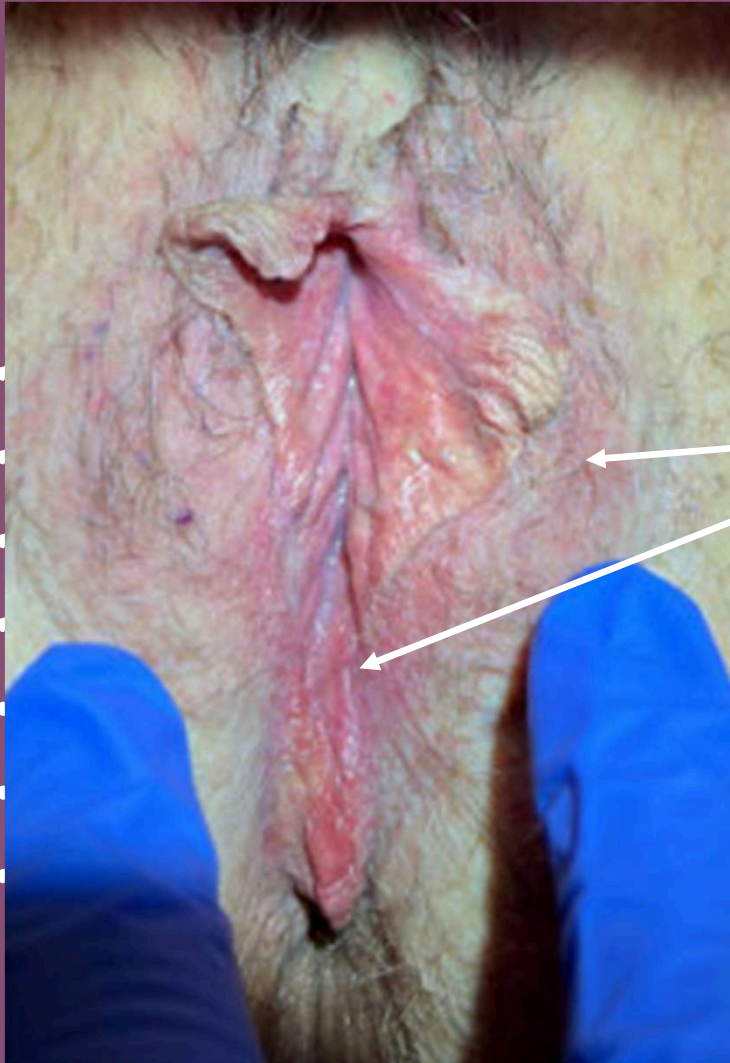


ulva

r

Patient photo used with consent

Lichen Sclerosus

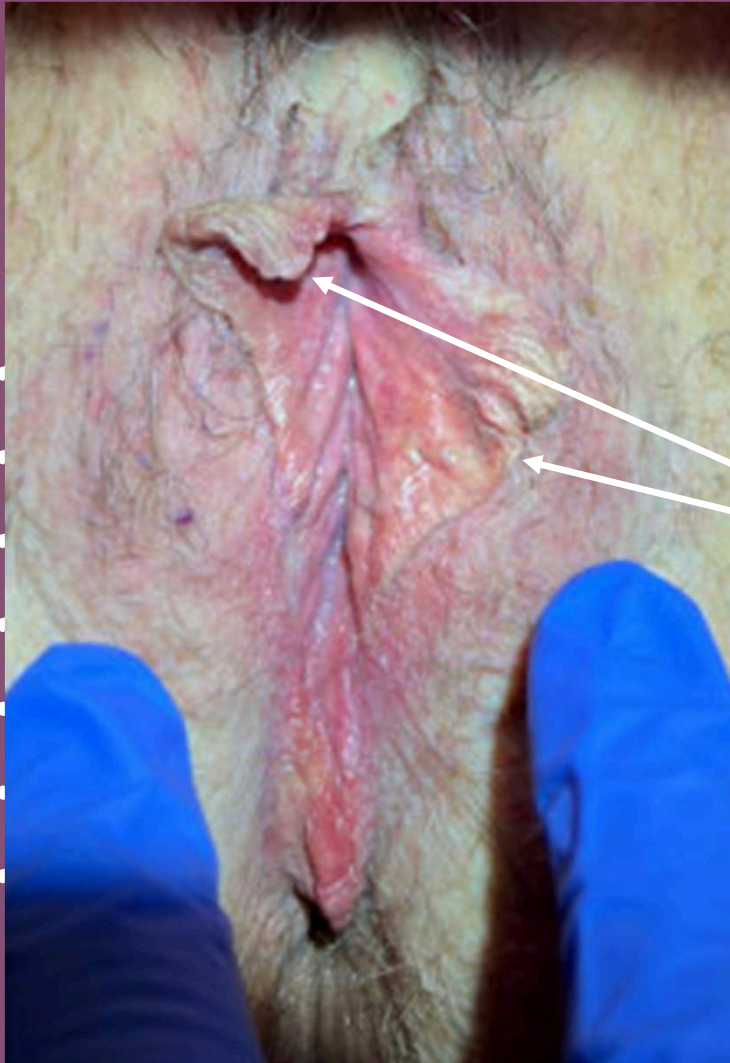


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Patient photo used with consent

Lichen Sclerosus

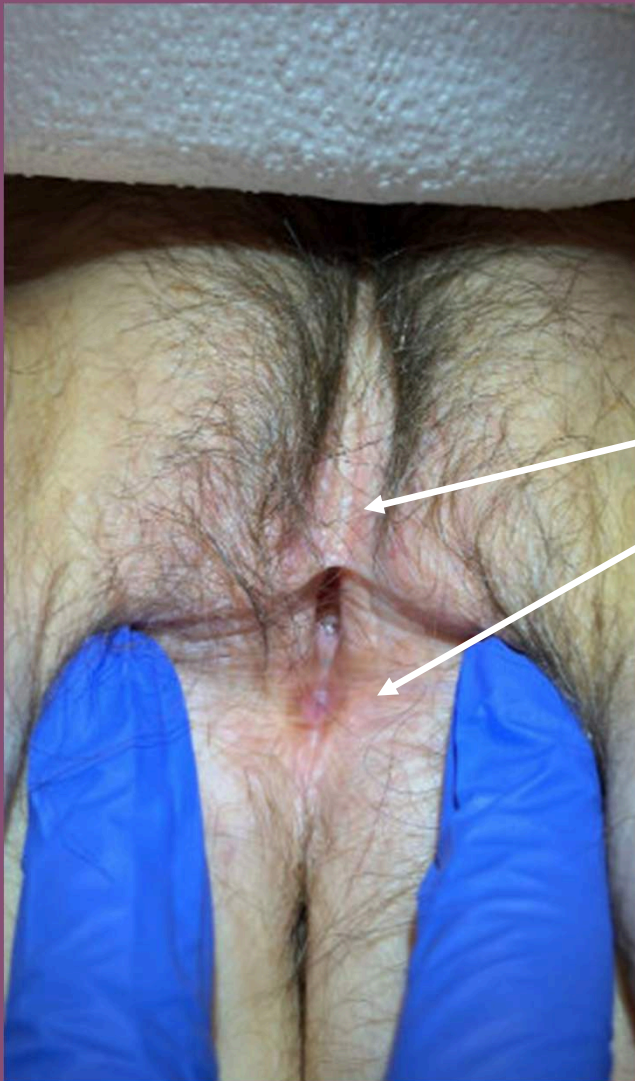


ulva

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Patient photo used with consent

Lichen Sclerosus



with vulva

s
terior

Patient photo used with consent

Lichen Sclerosus



with vulva

s
terior

Patient photo used with consent

Lichen Sclerosus



with vulva

s
terior

Patient photo used with consent

Lichen Sclerosus



with vulva

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Patient photo used with consent

Lichen Sclerosus



with vulva

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Patient photo used with consent



Advanced LS with fusion of the labia majora and bridging of posterior fourchette

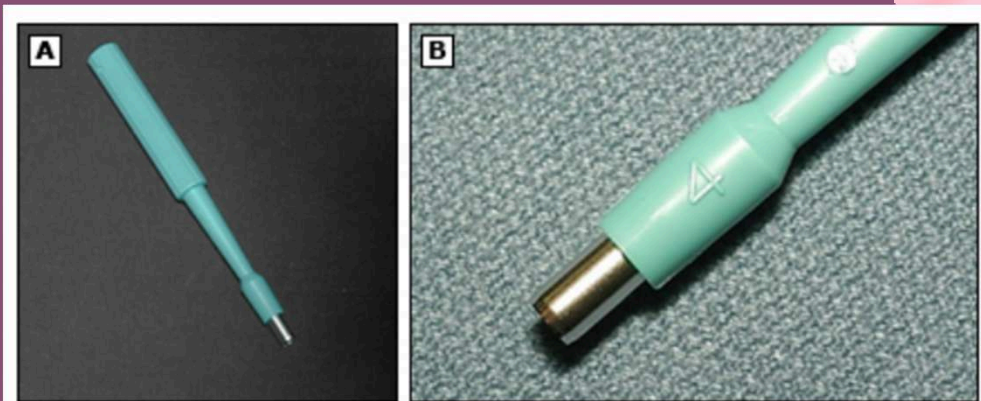


Lichen sclerosus resulting in squamous cell carcinoma

You suspect lichen sclerosus...

Now what?

- Refer to a gynecologist, or dermatologist comfortable with vulvar disorders
- Consider starting topical high potency corticosteroid (e.g. clobetasol propionate ointment 0.05%)
- Topical lidocaine and barrier ointment helpful for comfort
- Consider vulvar biopsy



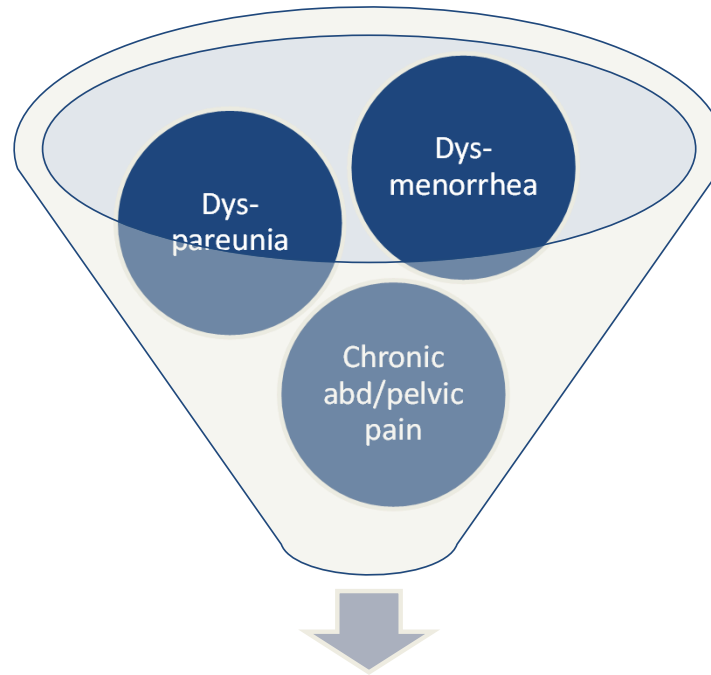
Keyes punch for vulvar biopsy

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NEVER MISS:

Classic signs of endometriosis

Case – Never Miss

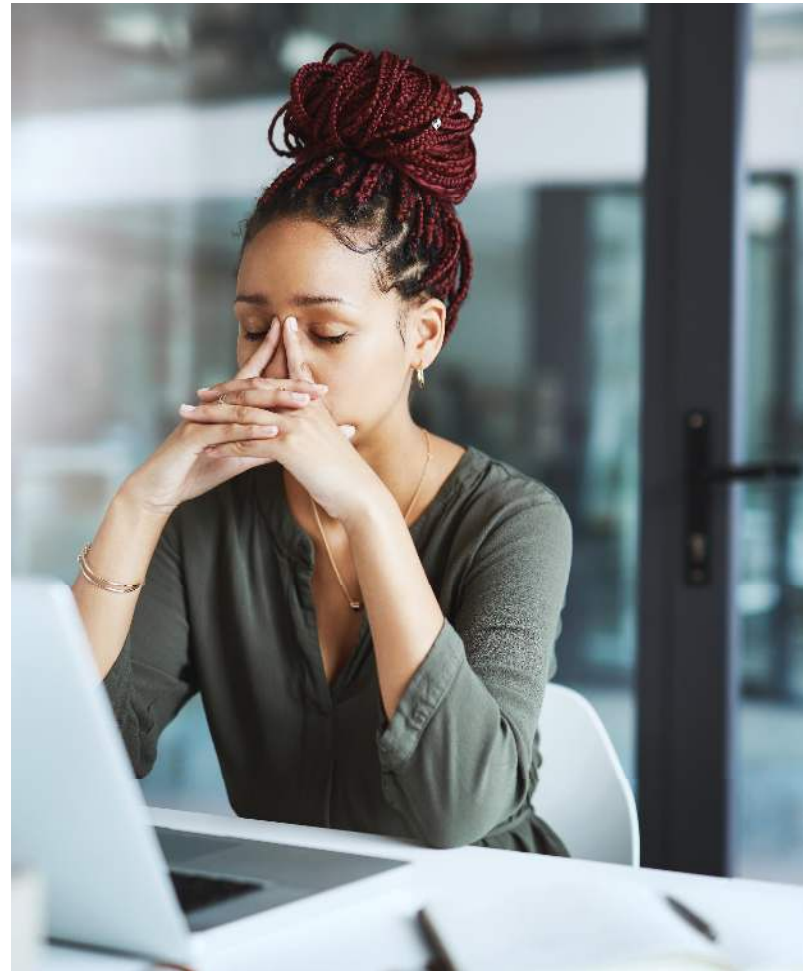


Never miss endometriosis

Case: Cyclic Pain

32 yo female presenting with chronic pelvic pain. Reporting:

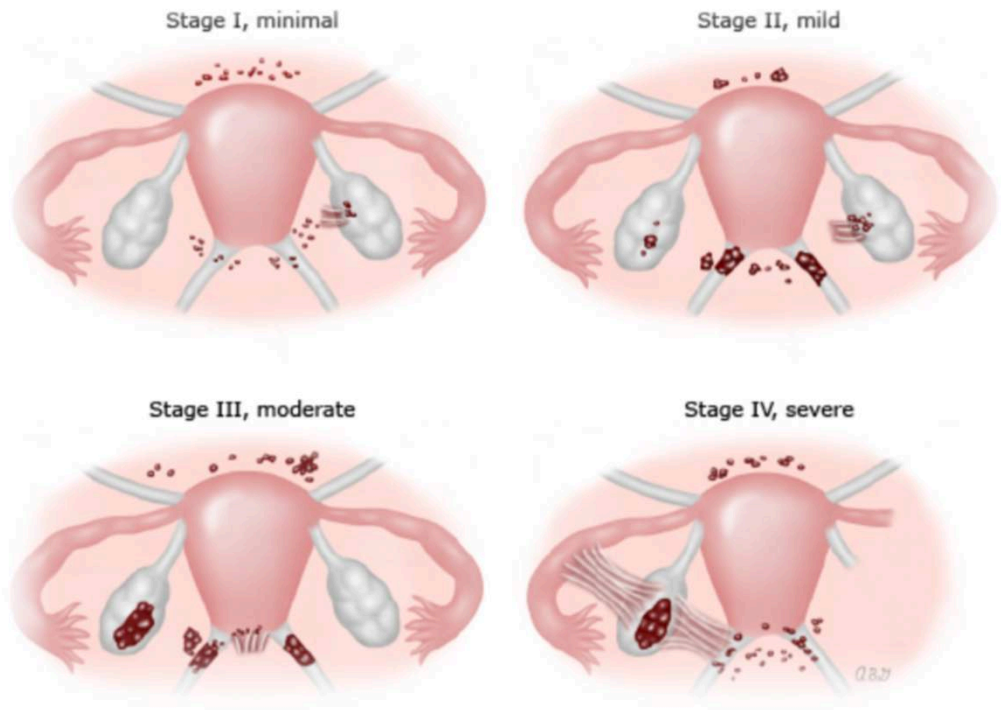
- Urinary urgency
- Urinary frequency
- Pelvic Pressure
- Sensation of Incomplete Emptying (PVR 15)
- Dyspareunia
- Pelvic pain worse with menses



Endometriosis

Characterized by:

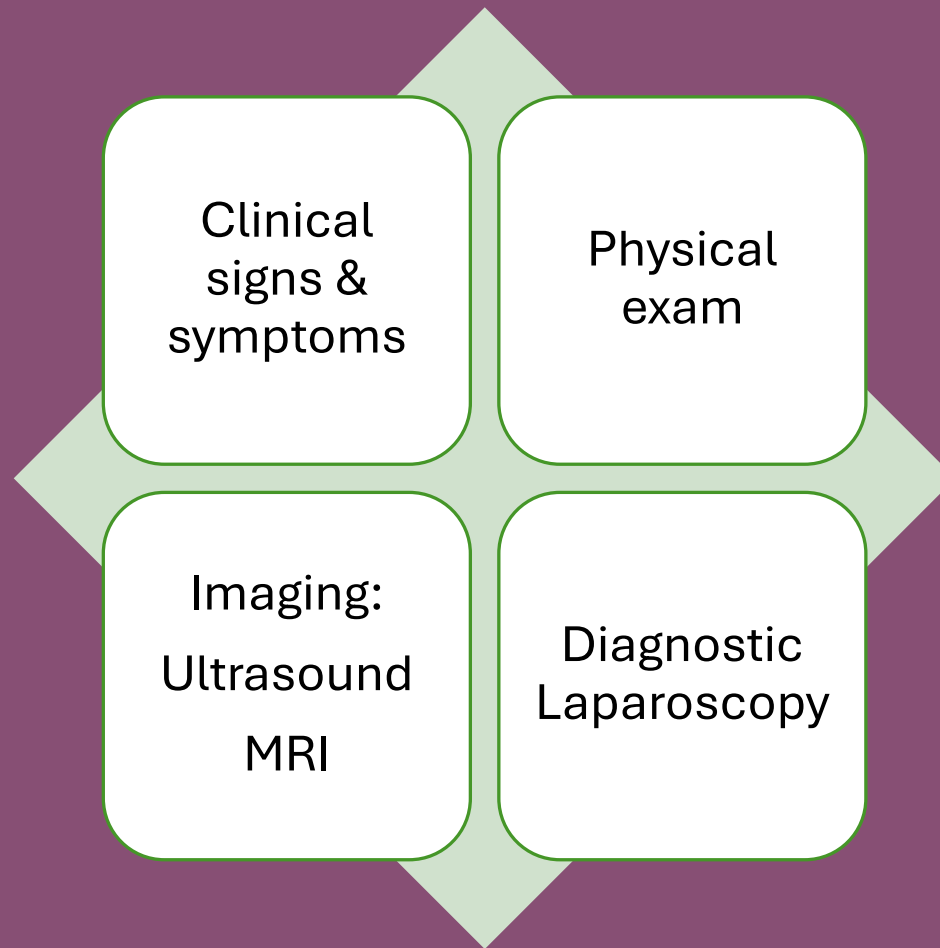
- Painful menses
- Heavy menses
- Progressively worsening chronic pain
- May respond to NSAIDs and/or hormonal medications

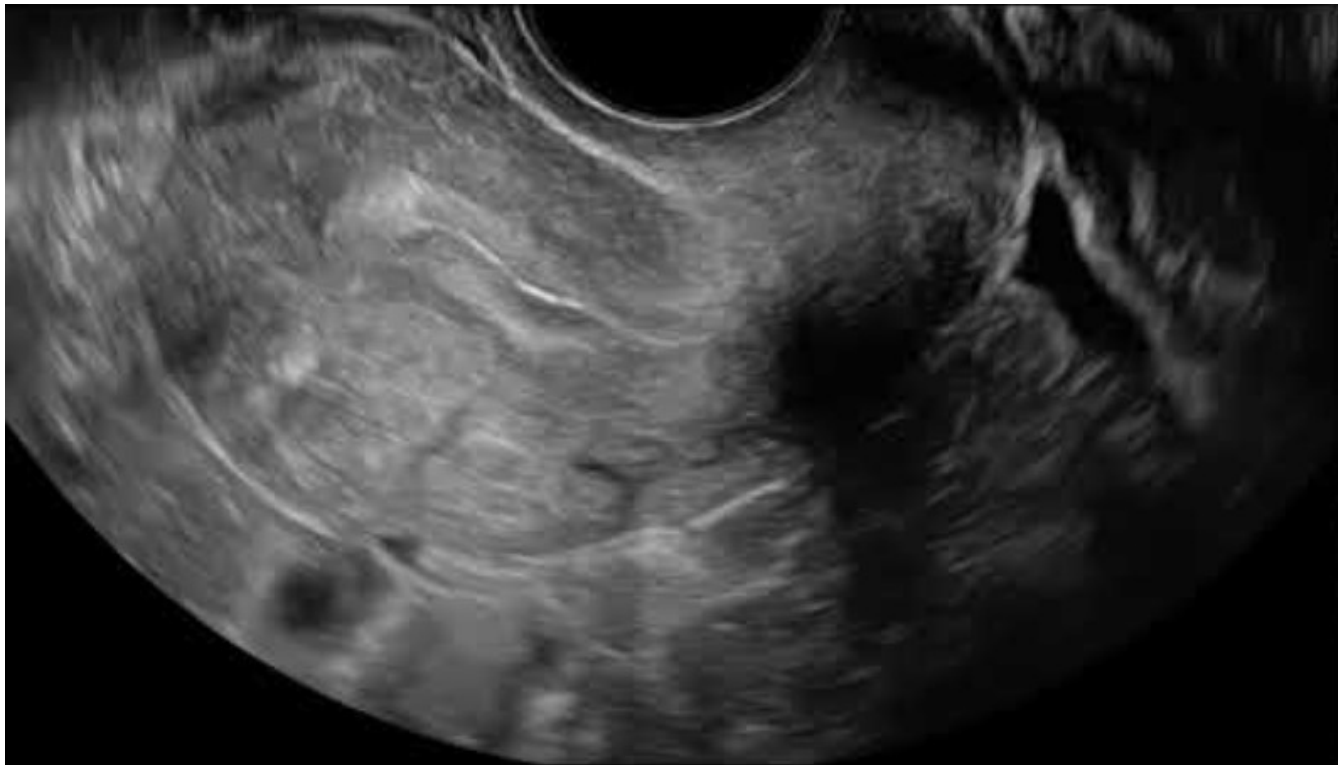


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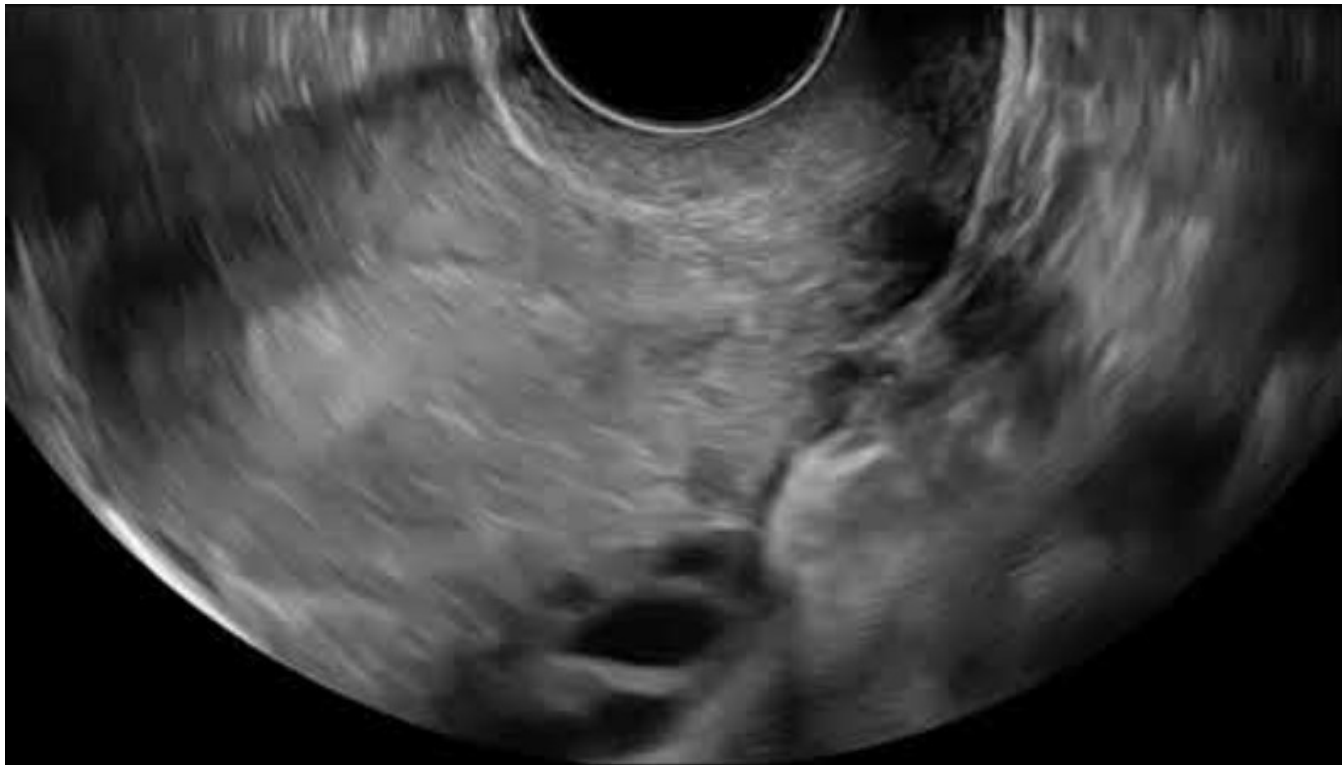
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Diagnosing Endometriosis

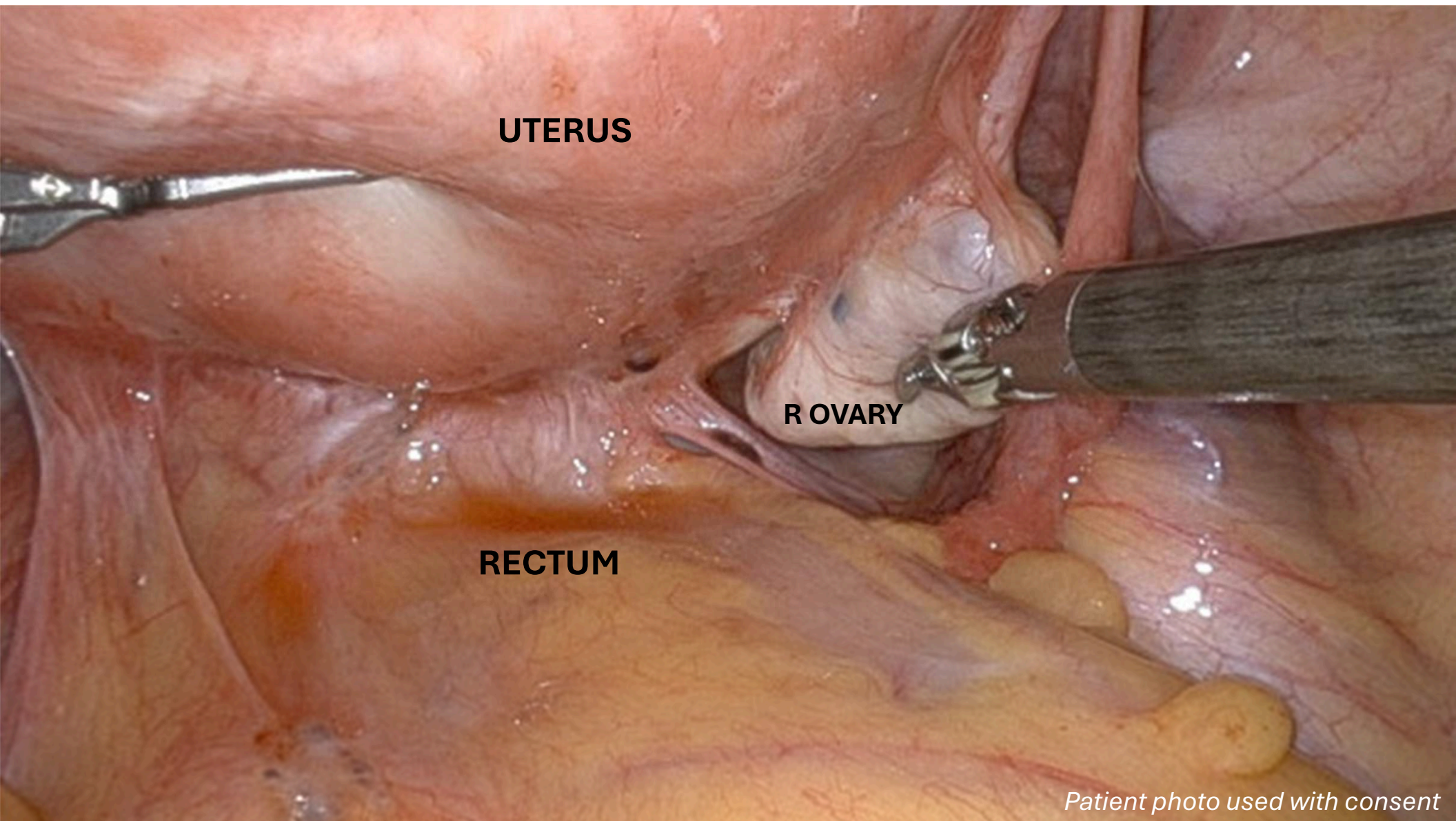




This video is part of a series from the article, 'Noninvasive ultrasound diagnosis of endometriosis,' by Mathew Leonardi, MD, and George Condous, MBBS. <https://www.contemporaryobgyn.net/view/noninvasive-ultrasound-diagnosis-endometriosis>



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UTERUS

R OVARY

RECTUM

Patient photo used with consent

Treating Endometriosis

****Patient-centered approach****

→ Goals of care &

→ Education

→ Hormonal suppression:

- Birth control pill
- Progesterone IUD
- Progesterone implant
- GnRH antagonist/agonist

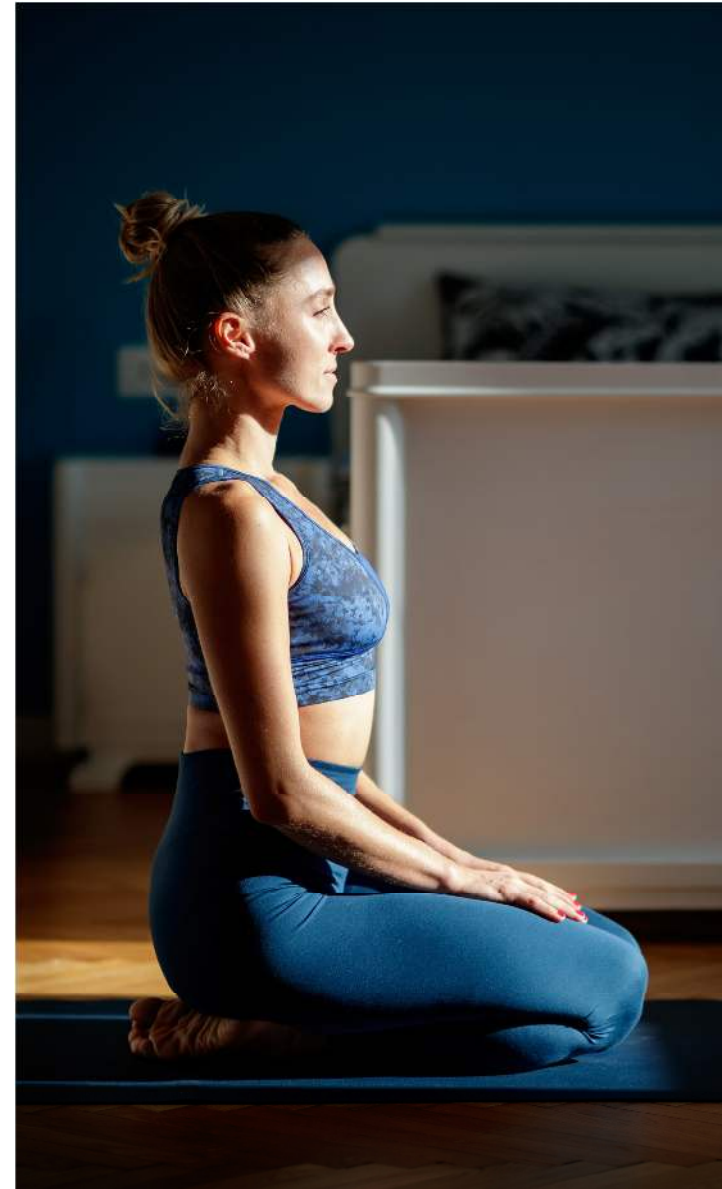
→ Pain control:

- NSAIDs
- Heat/ice
- TENS unit
- Other meds: Tylenol, muscle relaxers, gabapentin

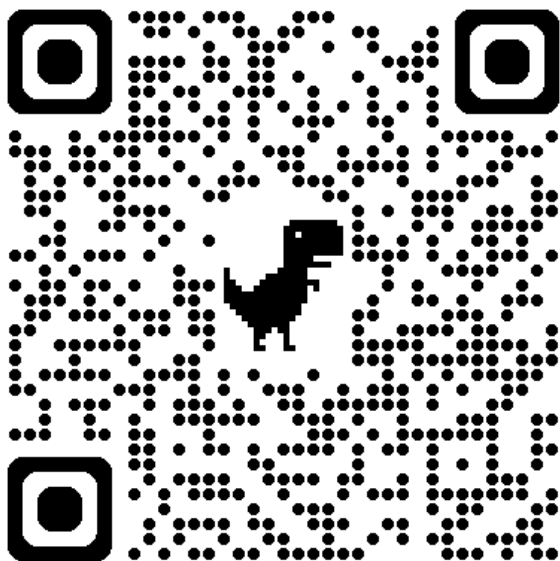
→ Surgery



Tools for Practice
In
CPP



ICS Global Pelvic Pain Exchange Curriculum



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Comprehensive Multidisciplinary Curriculum on Pelvic Pain

This educational series is the first of its kind, providing a full start to finish curriculum on diagnosis and management of pelvic pain. It is designed for the educational and collegial needs of multidisciplinary pelvic health groups (Urologists, Gynecologists, Physiotherapists, Nurses, Radiologists, Neurologists, Interventional Pain Specialists, Physical Medicine and Rehabilitation Physicians, Rheumatologists, Psychologists, Basic Scientists, Colorectal Surgeons and others) serving those with pelvic pain around the world.

[Meet the Curriculum Team](#)
 Discover the Vision Behind the Curriculum.

[Table of Contents](#)
 View the detailed index of sections and videos.

ICS Global Pelvic Pain Exchange Curriculum

12 Sections

"How To": Basic Approaches to Pelvic Pain
10 Episodes

Organ-Based Pelvic Pain
14 Episodes

Focal Neurological Pelvic Pain
5 Episodes

Ultrasound-guided Pudendal Nerve Block
7 Episodes

Pelvic Floor Muscle Tone (PFM): Why it is important and how to ...
5 Episodes

Physiotherapy of Pelvic Pain
5 Episodes

Hip Causes of Pelvic Pain
5 Episodes

Neurodiagnostics for Pelvic Pain
8 Episodes

TENS, Blocks, Stimulation, and Pumps for Pelvic Pain
7 Episodes

Systemic Pain Involving the Pelvis
6 Episodes

Pain Management and Pharmacology for Pelvic Pain
7 Episodes

Psychological and Cognitive Approach to Pain, Patient ...
8 Episodes

INTERNATIONAL CONTINENCE SOCIETY

[Keep me updated](#)

A systematic review of the literature using the MEDLINE® database (search dates 1/1/83-7/22/09) was conducted. Peer-reviewed publications relevant to the diagnosis and treatment of IC/BPS. The review yielded an evidence synthesis of treatment articles after application of inclusion/exclusion criteria. The AUA Update Literature Review process was used to synthesize the evidence. Additional systematic reviews were conducted in 2011 and 2012. These publications were added to the body of the guideline. Additional treatment articles were added to the guideline. See text and algorithm for details.

GUIDELINE

CUA guideline: Diagnosis and treatment of bladder pain syndrome

Consensus panel co-chairs: Ashley Cox, MD, MSc, FRCSC;¹ Genevieve Nadeau, MD, MSc, FRCSC²
Consensus panel members: J. Curtis Nickel, MD, FRCSC;³ Les Jacques Corcos, MD, FRCSC;⁴ Joel Teichman, MD, FRCSC⁵

¹Department of Urology, Dalhousie University, Halifax, NS, Canada; ²Department of Urology, North York General Hospital, Toronto, ON, Canada; ³CHU de Québec, Division of Urology, Québec, QC, Canada; ⁴Queens University, Kingston, ON, Canada; ⁵Department of Surgery, University of Toronto, Toronto, ON, Canada; ⁶McGill University, Montreal, QC, Canada; ⁷University of British Columbia, Vancouver, BC, Canada

Cite as: Can Urol Assoc J 2016;10(5-6):E136-55. <http://dx.doi.org/10.5489/cua.3786>
Published online May 12, 2016.

Methodology

The following guidelines were based on MEDLINE and PUBMED searches of English language literature, in addition to consensus conference proceedings. Levels of evidence and grades of recommendation were assigned for each investigation and treatment, as per the modified Oxford Centre for Evidence-Based Medicine guidelines system. Although

"The acco and infe tracti patie those hydr D. syn (ESS tive ogy, des or d acco tent with bladder pain, in 2010, the International Consultation of Urologists accepted this revised definition. The 2000

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uroweb.org

Deutsche Gesellschaft für Urologie

International Journal of
and Gynaecology



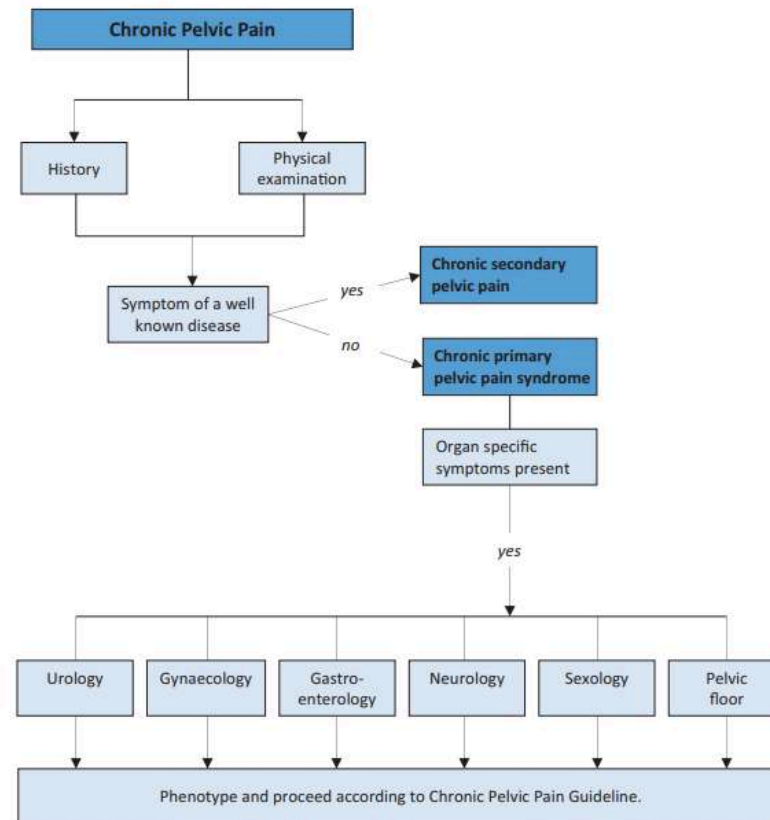
Royal College of
Obstetricians &
Gynaecologists

Bladder Pain Syndrome

December 2016

EAU Guidelines

Figure 1: Diagnosing chronic pelvic pain



Journal of Urology April 17 2025

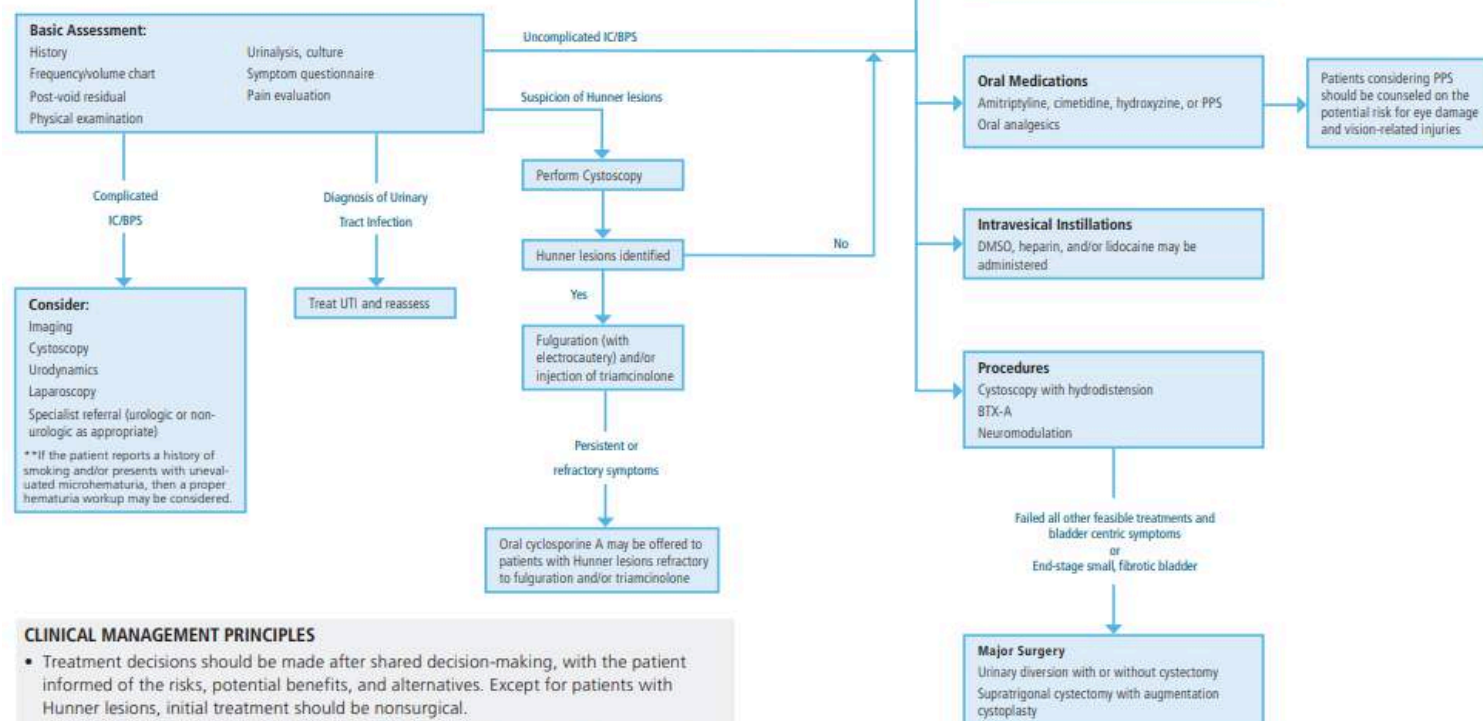
Diagnosis and Management of Male Chronic Pelvic Pain (Chronic Prostatitis/ Chronic Pelvic Pain Syndrome and Chronic Scrotal Content Pain): AUA Guideline: Part I

H. Henry Lai, MD; Michel A. Pontari, MD; Charles E. Argoff, MD; Larissa Bresler, MD, DABMA; Benjamin N. Breyer, MD; Roger Chou, MD; J. Quentin Clemens, MD, FACS, MSCI; Elise JB De, MD; R. Christopher Doiron, MD, MPH; Dane Johnson, MD; Erin Kirkby, MS; Susan M. MacDonald, MD; Jill H. Osborne, MA; Sijo J. Parekattil, MD; Beth Shelly, PT, DPT, WCS, BCB PMD

AUA Guideline IC/BPS

Figure One: IC/BPS Diagnosis and Treatment Algorithm

IC/BPS: An unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of more than six weeks duration, in the absence of infection or other identifiable causes.



CLINICAL MANAGEMENT PRINCIPLES

- Treatment decisions should be made after shared decision-making, with the patient informed of the risks, potential benefits, and alternatives. Except for patients with Hunner lesions, initial treatment should be nonsurgical.
- Initial treatment type and level should depend on symptom severity, clinician judgment, and patient preferences.
- Multiple, simultaneous treatments may be considered if it is in the best interests of the patient.
- Ineffective treatments should be stopped.
- Pain management should be continually assessed for effectiveness.
- The IC/BPS diagnosis should be reconsidered if no improvement occurs after multiple treatment approaches.

BTX-A: Onabotulinumtoxin A; DMSO: Dimethylsulfoxide; IC/BPS: Interstitial cystitis/bladder pain syndrome; PPS: Pentosan polysulfate; UTI: Urinary tract infection

The evidence supporting the use of Neuromodulation, Cyclosporine A and BTX-A for IC/BPS is limited by many factors including study quality, small sample sizes, and lack of durable follow up. None of these three therapies have been approved by the U.S. Food and Drug Administration for this indication. The panel believes that none of these interventions can be recommended for generalized use for this disorder, but rather should be limited to practitioners with experience managing this syndrome and willingness to provide long term care of these patients post intervention.

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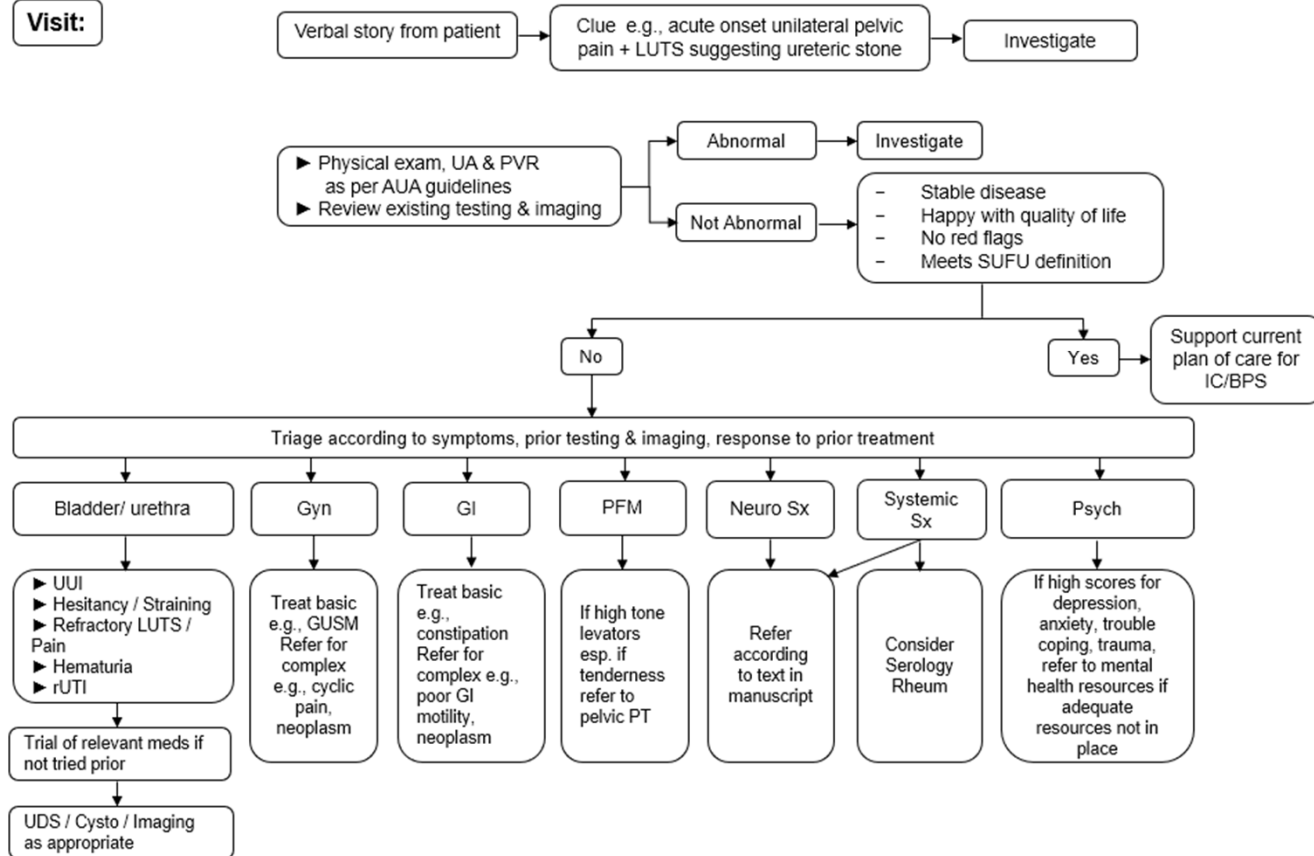
Clemens JQ, Erickson DR, Varela NP, Lai HH. Diagnosis and treatment of interstitial cystitis/bladder pain syndrome. J Urol. 2022;208(1):34-42

Approach to Patients Labelled with IC

Predocumentation:

- Comprehensive intake
 - Multidisciplinary symptom screening & review of symptoms
 - Catalogue of prior testing
 - Catalogue of prior trials of therapy

Visit:



International Pelvic Pain Society

www.pelvicpain.org

Healthcare Provider Assessment Form

INTERNATIONAL PELVIC PAIN SOCIETY HEALTHCARE PROVIDER ASSESSMENT FORM
www.pelvicpain.org

Neurologic (External)

Distribution	Normal	Right	Left
Iliohypogastric	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Ilioinguinal	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Obturator	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Genitofemoral	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Cuneal	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Lateral femoral cutaneous	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Pudendal Branch:	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Anal wink reflex	☐ Normal	☐ Absent	

Fibromyalgia Positive Tender Points AND Body Pain Map

Left Right Right Left

Add comments, including pain severity and radiation patterns:

info@pelvicpain.org www.pelvicpain.org

Last revised 6.3.19

Patient Pelvic Health History Form

INTERNATIONAL PELVIC PAIN SOCIETY PELVIC HEALTH HISTORY FORM
www.pelvicpain.org

10. Pain History, Description and Contributing Factors

When did your pain begin? Month: Year: ☐ Unsure

Please use your own words to describe your pain:

How did your main pain begin, do you recall a specific incident that occurred when your pain first began? (Check one)

☐ Injury at home ☐ Injury at work/school ☐ Injury in other setting ☐ Motor vehicle crash
☐ After surgery ☐ Cancer ☐ Medical condition other than cancer
☐ No obvious cause/ do not know a specific incident ☐ Other:

How did your pain begin? (Check only one) ☐ Suddenly ☐ Gradually

How long has your main pain been present? (Check only one)
☐ Less than 3 months ☐ 3-12 months ☐ 12 months-2 years ☐ 2-5 years ☐ More than 5 years

Since your pain began, is your pain: (Check only one)
☐ No different ☐ Getting better ☐ Getting worse ☐ I don't know

Which statement best describes your pain? (Check only one)
☐ Always present (always the same intensity)
☐ Always present (level of pain varies)
☐ Often present (pain free periods less than 6 hours)
☐ Occasionally present (once to several times per day lasting up to an hour)
☐ Rarely present (pain occurs every few days or weeks)

How would you describe your pain: (Check all that apply)
☐ Sharp, stabbing ☐ Crampy ☐ Heavy feeling in the pelvis ☐ Dull, aching pain
☐ Pulling, tugging pain ☐ Throbbing pain ☐ Burning pain ☐ Falling out sensation
☐ Other:

Does your pain ever wake you up from your sleep? ☐ Yes ☐ No

Does your pain ever radiate or spread to other regions of your body? ☐ Yes ☐ No

What makes your pain **WORSE**? (Check all that apply)
☐ Walking ☐ Climbing stairs ☐ Urination ☐ Heavy lifting ☐ Nothing makes it worse
☐ Full bladder ☐ Stress ☐ Housework ☐ The weather ☐ Getting in/out of the car
☐ Exercise ☐ Menstrual period ☐ Contact with clothing ☐ Intercourse/ Sexual contact
☐ Bowel movements ☐ Other:

What makes your pain **BETTER**? (Check all that apply)
☐ Lying down/rest ☐ Emptying bladder ☐ Ice or Heating pad ☐ Nothing makes it better
☐ Meditation ☐ Laxatives/enema ☐ It goes away by itself ☐ When I feel supported
☐ Hot bath ☐ Massage ☐ Bowel movements ☐ When my stress is low
☐ Exercise ☐ Ibuprofen or Tylenol ☐ Prescription pain medications
☐ Being distracted, when I am busy doing other things ☐ Other:

Last revised 6.19.2019
 All information, contents and material on this form is for informational purposes only and is not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare professional.

info@pelvicpain.org www.pelvicpain.org

www.ics.org/standards
www.ics.org/institute

- Definition – noncyclic CPP > 3 months
- Pain Characteristics – location, perception, modality
- Site specific versus central sensitization
- Identify inciting event – surgery, trauma, hormonal manipulation, major change in physical activity
- Comorbid conditions (e.g. autoimmune disease, XRT)
- Identify each pain generator and treat concurrently
- Domains of CPP – which organ systems are involved
 - Lower Urinary Tract Pain
 - Female Genital Pain
 - Male Genital Pain
 - Gastrointestinal Pain
 - Musculoskeletal Pain
 - Neuropathic Pain
 - Overlays:
 - Psychological
 - Sexual Aspects
 - Comorbidities



Neurourology and Urodynamics

NeuroUrol. Urodynam., 2016 36: 984–1008.

A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report From the Chronic Pelvic Pain Working Group of the International Continence Society

Regula Doggweiler,¹ Kristene E. Whitmore,^{2*} Jane M. Meijlink,³ Marcus J. Drake,⁴ Helena Frawley,⁵ Jørgen Nordling,⁶ Philip Hanno,⁷ Matthew O. Fraser,⁸ Yukio Homma,⁹ Gustavo Garrido,¹⁰ Mario J. Gomes,¹¹ Sohier Elneil,¹² Joop P. van de Merwe,¹³ Alex T.L. Lin,¹⁴ and Hikaru Tomoe¹⁵

The screenshot shows the ICS Institute website. At the top is the ICS Institute logo and navigation links. Below is the 'SCHOOL OF PELVIC PAIN' section, which includes a video player featuring Kristene Whitmore. Below the video is a 'Working Group' section with portraits and names of group members: Neha Rana, Hikaru Tomoe, Matthew Fraser, Dick A.W. Jansen, Karolynn Echols, Jane Meijlink, and Rhonda Kotarinos. At the bottom are sections for 'ICS Live Videos' and 'Workshop Videos' with thumbnails for various events.

Received: 16 February 2021

Accepted: 17 February 2021

DOI: 10.1002/nau.24658

SOUNDING BOARD



An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment

Helena Frawley¹ | **Beth Shelly^{2,3}** | **Melanie Morin⁴** |
Stéphanie Bernard⁵ | **Kari Bø^{6,7}** | **Giuseppe Alessandro Digesu⁸** |
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Mohammad S. Rahnema'i^{12,13} | **Alexis Schizas¹⁴** |
Marijke Slieker-ten Hove^{15,16} | **Satoru Takahashi¹⁷** | **Jenniffer Voelkl Guevara¹⁸**

<https://www.ics.org/standards>

New Standardization Document

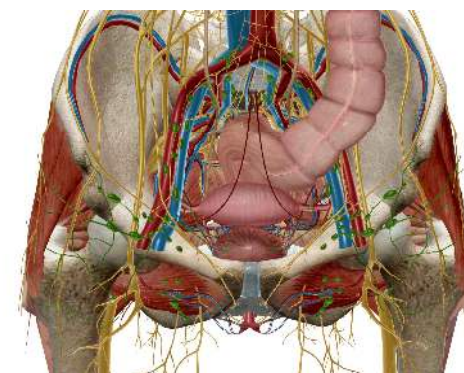
Treatment of Pelvic Pain depends on the:

Causes of Pain in Pelvis and Reasons for Pelvic Pain

LOCATION of PELVIC PAIN SYMPTOMS	POSSIBLE EXPLANATIONS of CHRONIC PELVIC PAIN SYNDROME
Vulvar pain Vulva and pelvic burning, burning in pelvic area	Infection Exposures (irritants) Vulvar atrophy (low estrogen) Low testosterone (can be caused by external hormones) Dermatologic conditions (e.g., lichen sclerosis) Neuropathy
Introital pain Entrance to vagina	Low testosterone Friction from sexual activity or clothing
Urethral pain Pain urinating	Vulvovaginal atrophy Urethral caruncle Friction Tight external sphincter muscle or stricture (turbulence) Skene's gland Stone at ureterovesical junction or urethra diverticulum Tumor Infection (<u>ureaplasma</u> /mycoplasma) or sexually transmitted infection Recurrent urinary tract infections
Pelvic floor muscles Heavy feeling in pelvic area, pelvis ache, pelvic pain from sitting, pelvic headache	Dysfunctional voiding Overactivity of muscles from pelvic strain, pelvic exercises or the <u>kegel</u> exercise
Gynecological pain Causes of pelvic pain in women, pain in pelvis female, symptoms of pelvic infection, sore pelvic area, pelvic discomfort, sore pelvis	Endometriosis symptoms (cramps in pelvis, pain in pelvis before period, pain in pelvis after period, extreme pelvic pain) Endometritis Adhesions in pelvis Uterine fibroids Ovarian venous abnormality Ovarian cysts, torsion, or other growths Ectopic pregnancy Sexually transmitted infection, inflammation in pelvis
Male organ pain	Prostatitis symptoms or epididymitis Testis mass, torsion, or nerve pain

Prostate pain, testis pain, groin pain, scrotum pain, pelvis pain men, pain in pelvis male	Ejaculatory duct or vas deferens obstruction <u>Psychogenic</u> Disease Sexually transmitted infection (STI, STD) Pelvic floor muscles, especially when prostatitis treatment has not been successful
Bladder pain	Interstitial cystitis Dietary triggers Bladder outlet obstruction
Gastrointestinal Pain Painful bowel movement, stomach cramps, blood in stool, cramps, bloating	Pelvic floor muscles: <u>levator</u> ani syndrome Proctalgia fugax / chronic proctalgia Unspecified functional anorectal pain Constipation –right pelvic pain, lower left side pelvic pain Anal Fissure Hemorrhoids Pruritis ani Anal cancer Paget's disease Warts Pelvic tumor Diverticulitis Appendicitis Adhesions in pelvis Hernia – pelvic pain sneezing Inflammatory bowel disease Irritable bowel syndrome – gas pain in pelvis
Vascular pain in lower pelvis Pelvis pain worse with standing	Pelvic venous disorder, pelvic venous congestion syndrome
Bone pain, Joint Pain Pelvic girdle pain, fractured pelvis symptoms, pelvic bone pain, pubic symphysis pain, pain in hips, pain in the pubic area, pelvic pain running	Back, knee, foot, or hip problem Injury to nerves, bones, ligaments, or tendons Inflammation of bone (osteitis or osteomyelitis) Muscle deficit (myopathy)
Nerve pain Burning pain in pelvis, burning sensation in pelvic area, pain that radiates down one leg, sharp pains in pelvic area	Upper motor neuron syndrome (upper spine/brain nerves) Spinal stenosis Herniated disc Multiple sclerosis Stroke Cerebral palsy

	Lower motor neuron syndromes (lower spinal cord) Cauda equina syndrome Tethered cord syndrome <u>Tarlov</u> Cyst Sacral plexus Peripheral nerve problem Pudendal neuropathy, pudendal neuralgia, or other nerve entrapment Peripheral neuropathy or neuroinflammation
Psychological	Loss of health Depression Anxiety History of sexual abuse/assault, PTSD Poor emotional coping/communication Personality disorders Couple distress
All-over pain Pain all over the body, pain everywhere, constant pain	Fibromyalgia Small fiber polyneuropathy Diabetic neuropathy Central sensitization Neuroinflammatory disease (e.g. Lyme disease) Rheumatologic disease Vasculitis



Differential Diagnosis of Pelvic Pain

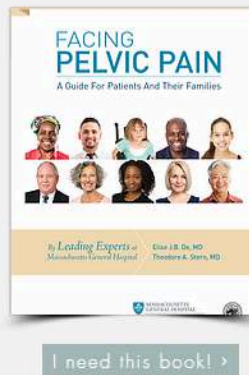
www.facingpelvicpain.org

Free Multidisciplinary One-Stop Resource Providers and Patients www.facingpelvicpain.org



Finding a specialist experienced specifically in pelvic pain can be challenging. But, don't give up! Here are some databases that will help you find the right medical care provider in your area (click the links below):

- [American Urogynecological Society \(AUGS\)](#)
- [American College of Ob-Gyn](#)
- [American Physical Therapy Association](#)
- [Herman Wallace Institute](#)
- [Global Pelvic Health Alliance](#)
- [Endometriosis Association](#)
- [International Foundation for Functional Gastrointestinal Disorders](#)
- [Interstitial Cystitis Network](#)
- [Interstitial Cystitis Association](#)
- [International Pelvic Pain Society](#)
- [Vulvodynia Association](#)
- [Vulvar Pain Foundation](#)
- [Pudendal Neuralgia Association](#)
- [Neuropathy Commons](#)



Tell Me More!

Other Websites Helpful in Pelvic Pain and Pelvic Floor Conditions:

- [World Federation for Incontinence and Pelvic Problems](#)
- [Urology Care Foundation](#)
- [Harvard Medical School Patient Education Center](#)
- [Continence Product Advisor](#)



Video - Nerve Blocks for Pelvic Pain

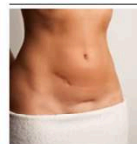
← Pain Specialists Alexandra Adler MD and Antje Barneveld MD, Explain the Roles of Diagnostic and Therapeutic Injections for Pelvic Pain
10 Minute [Video](#)

Images: iStock and <http://www.elsevier.com>



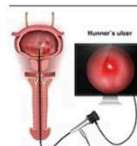
Video - Pelvic Floor Muscle PT in Men Explained

← Dr. Beth Shelly Explains What Happens in Pelvic PT for Men
6 Minute [Video](#)
Read the [transcript](#)



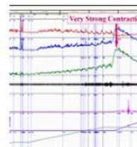
Video - Pelvic Floor Muscle PT in Women Explained

← Dr. Beth Shelly Explains What Happens in Pelvic PT for Women
6 Minute [Video](#)
Read the [transcript](#)



Video - Cystoscopy Explained

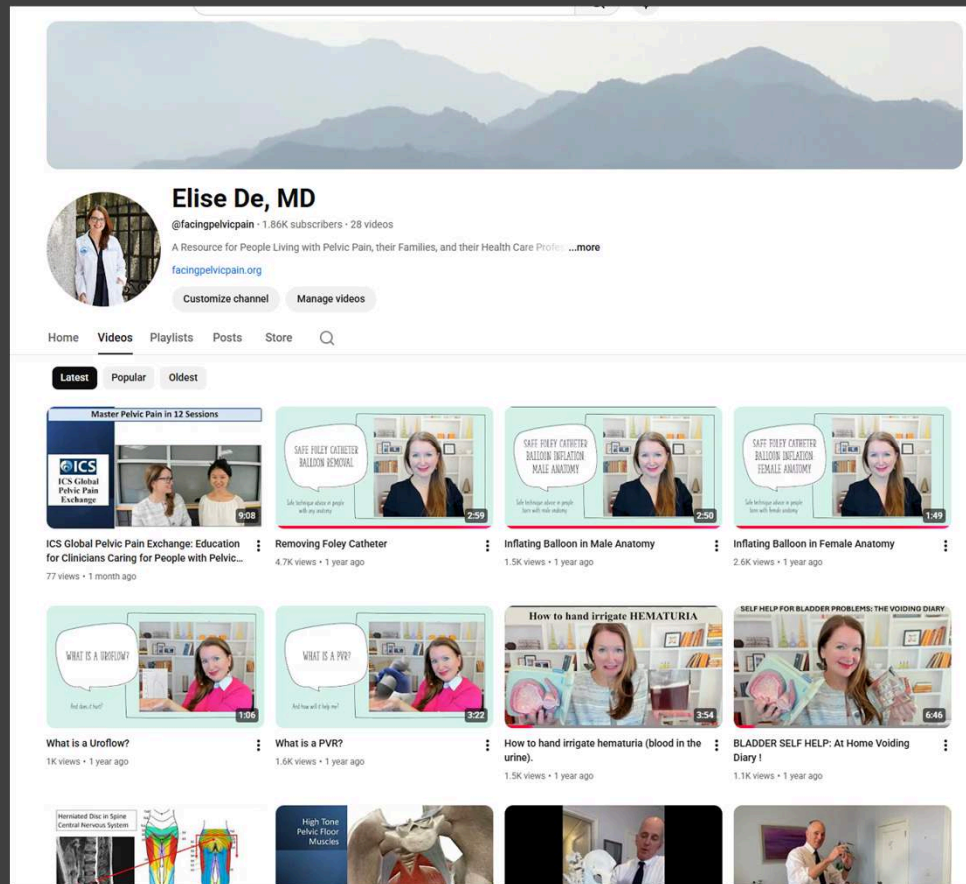
← Video Explaining "What is Cystoscopy?" (Office Camera Test of Bladder)
6 Minute [Video](#)
Read the [transcript](#)



Video - Urodynamic Testing Explained

← Video Explaining "What are Urodynamics?" (Pressure Test of Bladder)
6 Minute [Video](#)
Read the [transcript](#)

<http://www.youtube.com/@facingpelvicpain>



The image shows the YouTube channel page for Elise De, MD. The header features a landscape background image. Below the header is the channel name "Elise De, MD" and the handle "@facingpelvicpain". The channel description reads: "A Resource for People Living with Pelvic Pain, their Families, and their Health Care Professionals...more". The channel has 1.86K subscribers and 28 videos. Below the description are links to "Customize channel" and "Manage videos". The navigation bar includes "Home", "Videos", "Playlists", "Posts", and "Store". The video grid shows several videos, including "Master Pelvic Pain in 12 Sessions", "Removing Foley Catheter", "Inflating Balloon in Male Anatomy", "Inflating Balloon in Female Anatomy", "What is a Uroflow?", "What is a PVR?", "How to hand irrigate HEMATURIA", and "BLADDER SELF HELP: At Home Voiding Diary!".

Elise De, MD
@facingpelvicpain
1.86K subscribers · 28 videos
A Resource for People Living with Pelvic Pain, their Families, and their Health Care Professionals...more
facingpelvicpain.org
Customize channel Manage videos

Home Videos Playlists Posts Store

Latest Popular Oldest

Master Pelvic Pain in 12 Sessions
ICS Global Pelvic Pain Exchange: Education for Clinicians Caring for People with Pelvic...
77 views · 1 month ago

Removing Foley Catheter
SAFE FOLEY CATHETER BALLOON REMOVAL
4.7K views · 1 year ago

Inflating Balloon in Male Anatomy
SAFE FOLEY CATHETER BALLOON INFLATION MALE ANATOMY
1.5K views · 1 year ago

Inflating Balloon in Female Anatomy
SAFE FOLEY CATHETER BALLOON INFLATION FEMALE ANATOMY
2.6K views · 1 year ago

What is a Uroflow?
1K views · 1 year ago

What is a PVR?
1.6K views · 1 year ago

How to hand irrigate HEMATURIA
How to hand irrigate hematuria (blood in the urine).
1.5K views · 1 year ago

BLADDER SELF HELP: At Home Voiding Diary!
1.1K views · 1 year ago

Elise De, MD

@facingpelvicpain

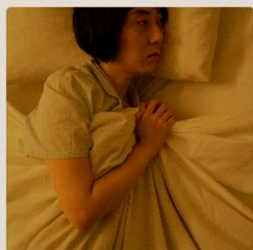


Vulvar / Vaginal Treatments	Tried?	Relief?	Still Using?
Avoidance of Irritants (select toilet paper, soap)			

www.facingpelvicpain.org

The Treatment Map

☐ Steroid (clobetasol, hydrocortisone)			
☐ Diazepam (Valium®) vaginal Suppositories			
☐ Baclofen (Lioresel®)			
☐ Lidocaine			
☐ Gabapentin (Neurontin®)			
☐ Amitriptyline (Elavil®)			
☐ Tacrolimus (Prograf®)			
☐ Naltrexone - low dose (Vivitrol®)			
☐ Douches			
☐ Other Inserts			
☐ Wipes			
Hormonal Medications	Tried?	Relief?	Still Using?
Vaginal estrogen cream, tablet or ring			
Estrogen / progesterone pills or patches			
Hormone-secreting intrauterine device (Mirena®, Liletta®)			



SEXUAL DESIRE

Selective Serotonin Reuptake Inhibitors & Sexual Dysfunction

EMILY BARKER, MD MPH, MD, MPH
EMILYANN KEY, MPH, MPH

Selective serotonin reuptake inhibitors (SSRIs) are medications effective in treating a variety of...

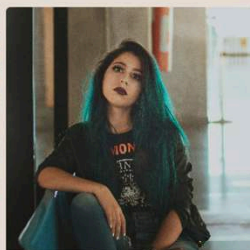


PAINFUL SEX

Sexual Dysfunction in Systemic Lupus Erythematosus

JAMES A. SIMON, MD, CCD, MSCP

SLE is an autoimmune disorder that not only affects joints, skin, and organs but can impact intimacy....



PAINFUL SEX

Vulvar Aphthae

JENNA J. LULLO, MD

Vulvar aphthae are painful ulcers on the skin of the vulva. They can significantly impact sexuality and...

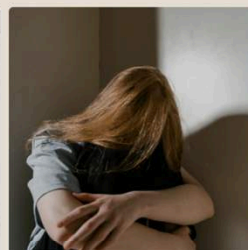


PAINFUL SEX

Polycystic Ovary Syndrome (PCOS) & Your Sexual Health

JAMES A. SIMON, MD, CCD, MSCP

Polycystic ovarian syndrome (PCOS) is a common hormonal disorder affecting women of reproductive...



PAINFUL SEX

Hidradenitis Suppurativa

JENNA J. LULLO, MD

Hidradenitis suppurativa is a chronic, and often debilitating, skin condition in which painful, inflamed lesions...



TREATMENT

Vaginal Estrogen For The Prevention Of Recurrent Urinary Tract Infections

CARLOS ZAPATA-CABALLERO, MD

Recurrent urinary tract infections (rUTIs) are a significant concern for many women, particularly after...



SEXUAL DESIRE

How Menopause Affects Sexuality

GRETCHEN FREY, MD, FACOG

For anyone with ovaries, the stage of life known as menopause will come along sometime between the late...



PAINFUL SEX

Clitoral Adhesions

ANDREA MARTIN, DNP, CRNP, WHNP

An estimated 23-33% of vulvar owners have clitoral adhesions.



PAINFUL SEX

Vaginismus

COREY R. BABB, DO, NCMP, IF, FACOG



SEXUAL DESIRE

Hypoactive Sexual Desire Disorder

DIANA BITNER, MD

Hypoactive Sexual Desire Disorder (HSDD) is a state of decreased sexual desire that has occurred as a chang...



PAINFUL SEX

Pelvic Floor Muscle Dysfunction

HEATHER QUAIL, DNP, WHNP-BC, CSC, SANE, IF

Pelvic floor muscles are thin layers of muscle that form a basket to support pelvic organs and their dysfunction...



Sex After Cancer

LAILA S. AGRAWAL, MD, IF

Sexual health concerns are very common after a cancer diagnosis - and often treatable.



Let's talk about sleep...(and sex)

JEWEL M. KLING, MD, MPH, NCMP, FACP

It's easy to forget how important sleep is, but time and again, studies show sleep is critical to many aspec...



PAINFUL SEX

Hormonally Mediated Vestibulodynia

RACHEL RUBIN, MD, IF, NCMP

Vestibulodynia is a general term used to describe pain in the vestibule. The vestibule is the tissu...

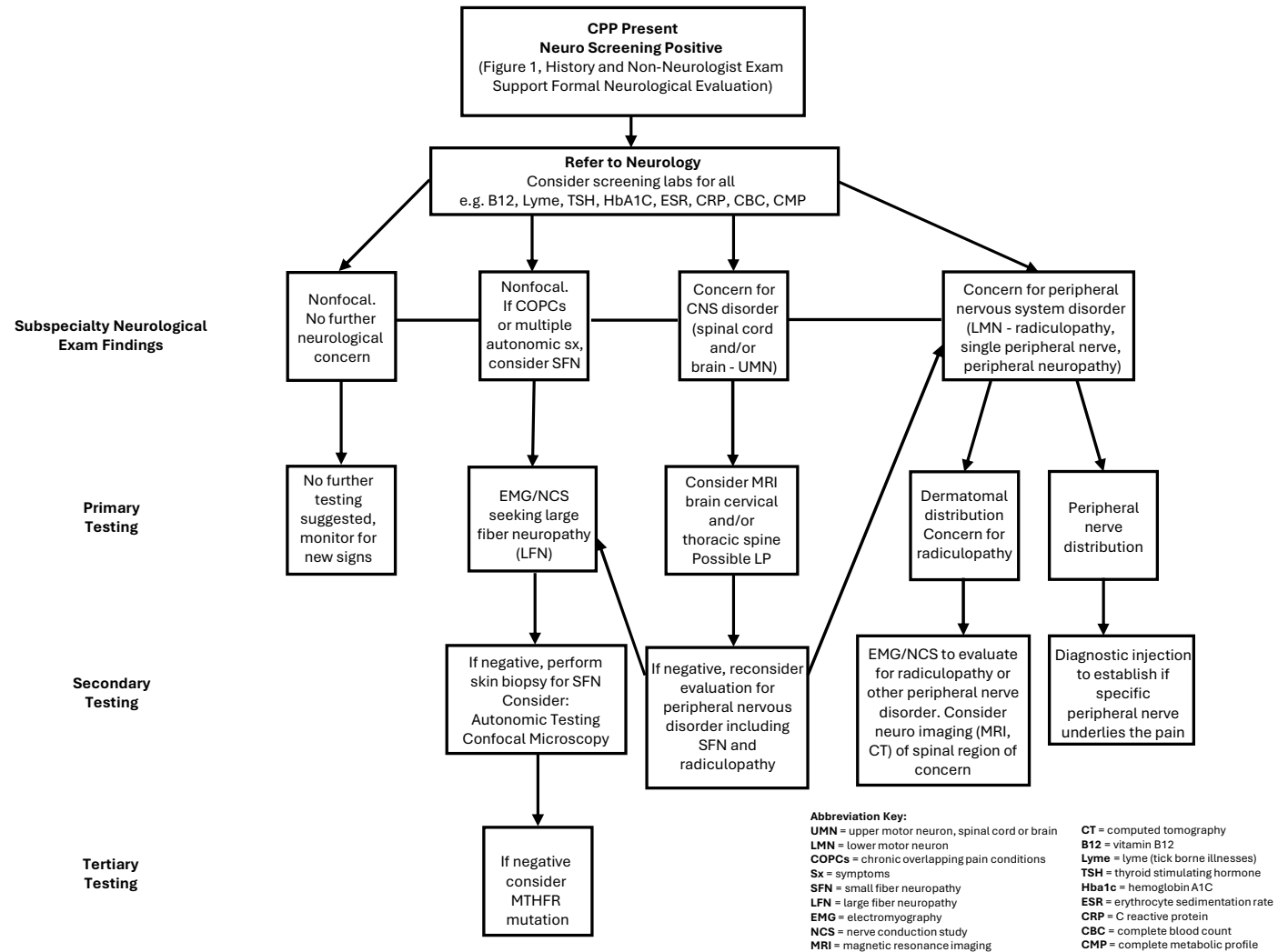
Figure 1: Screening criteria used to trigger referral of patients with CPP for neurological evaluation.

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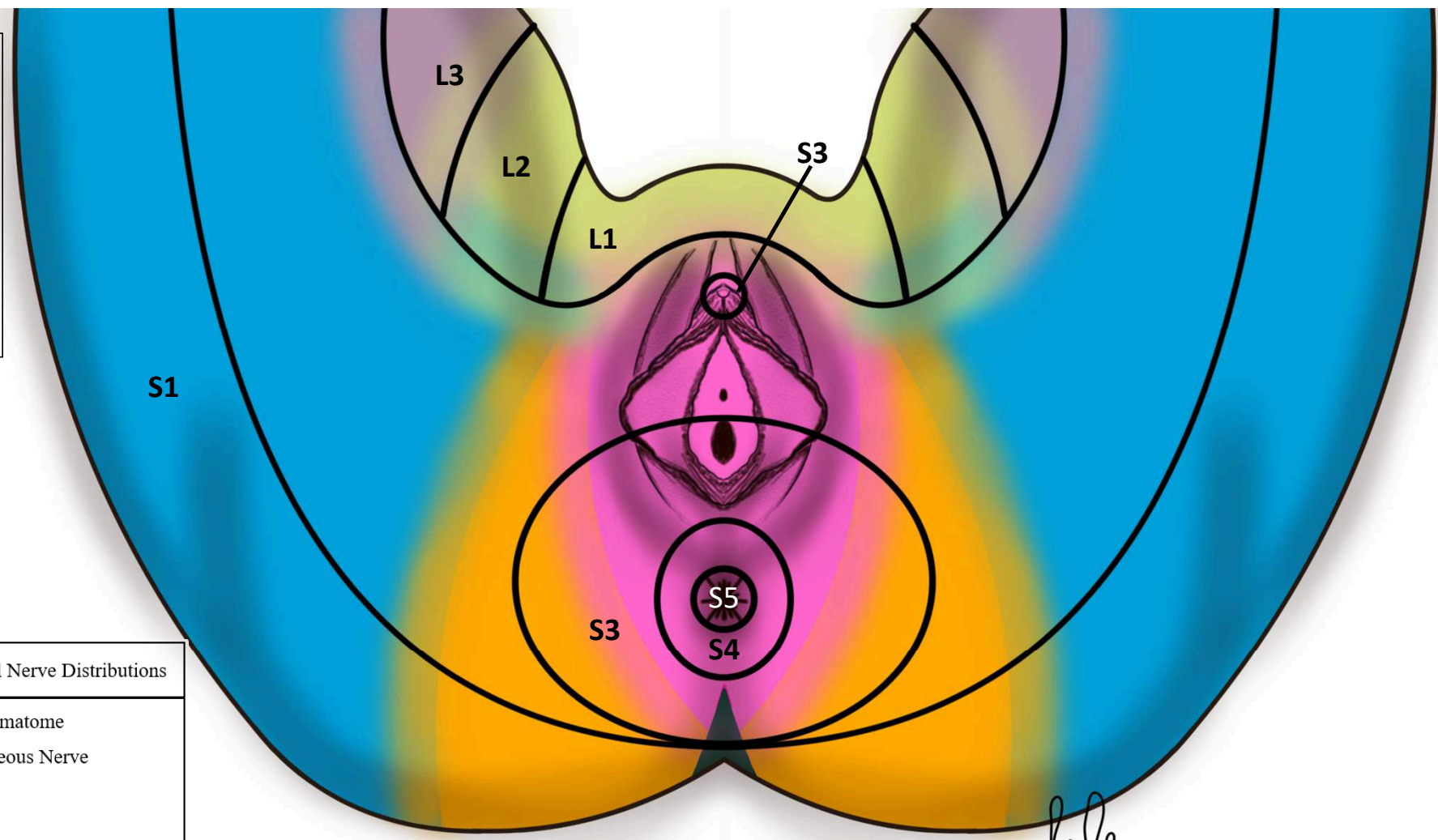
- Pain, sensory disturbance, or weakness referable to:
 - a specific nerve root
 - peripheral nerve distribution
 - a pattern consistent with a central nervous system etiology
- Combination bladder, bowel, sexual, or pain symptoms referable to lumbosacral spine pathology
- Balance or gait alteration
- Abnormal reflexes, sensation, or weakness on cursory neurological examination
- Upper motor neuron findings or unexplained hypotonia on urodynamics
- Evidence of autonomic dysfunction (including interstitial cystitis, irritable bowel syndrome, erectile dysfunction, persistent genital arousal disorder, arrhythmia, postural orthostatic tachycardia syndrome), and/or chronic overlapping pain syndromes (COPCs, including pelvic pain, migraine, endometriosis, temporomandibular joint pain, sensitive feet, fibromyalgia)
- Pelvic pain refractory to musculoskeletal and organ-based interventions

Neurologist's Diagnostic Algorithm in people with CPP referred by pelvic health for a positive Neurological Screening.

This is a basic guide, not to replace subspecialty neurological evaluation. Copyright retained by the authors.



Peripheral nerve distributions (color) and spinal nerve root dermatomes (black lines) can indicate which nerves are causing pain.



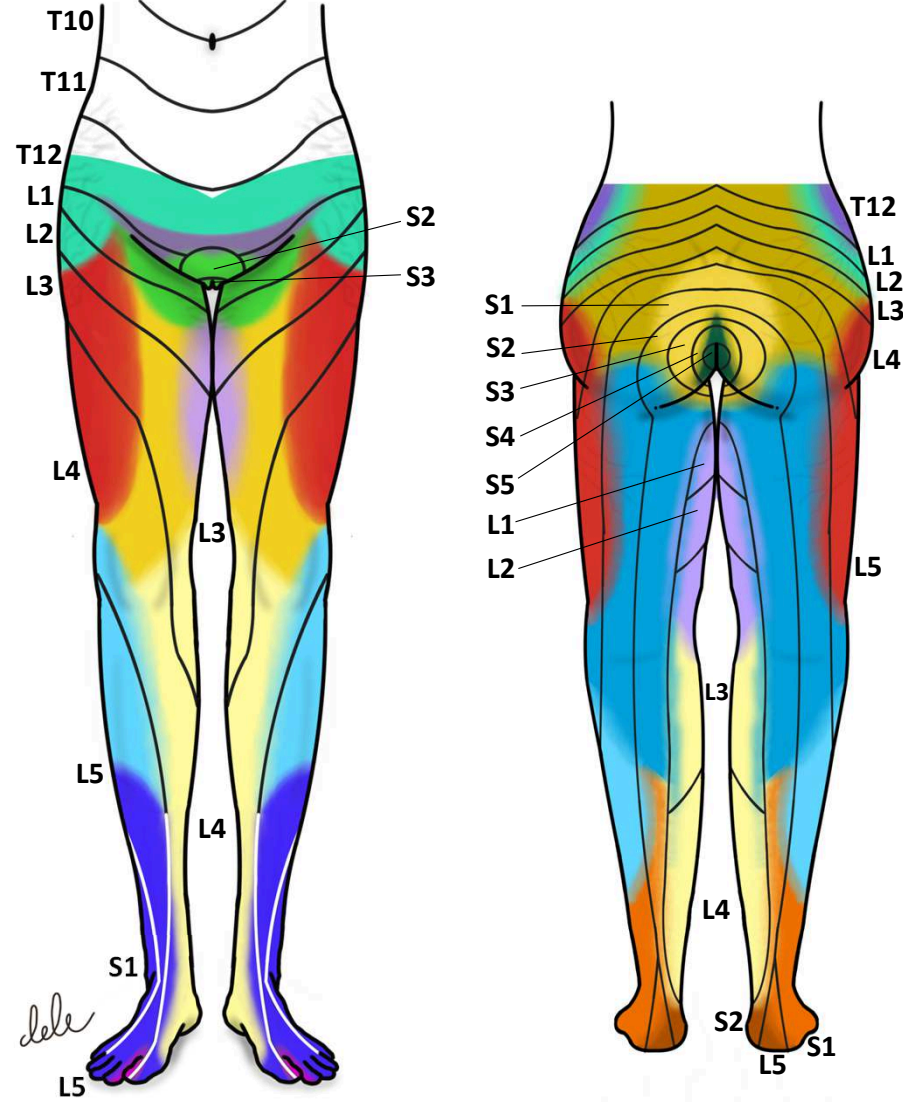
Dermatomes and Peripheral Nerve Distributions

- Spinal Nerve Root Dermatome
- Posterior Femurocutaneous Nerve
- Inferior cluneal Nerve
- Pudendal Nerve
- Genitofemoral Nerve
- Obturator Nerve
- Coccygeal plexus

dele

Nucelio Lemos, MD, PhD and Diba De, BS
Requests for permission: Linked In 333233184

Key of Spinal Nerve Root Dermatomes and Peripheral Nerve Distributions	
—	Spinal Nerve Root Dermatome
	Iliohypogastric Nerve
	Ilioinguinal Nerve
	Genitofemoral Nerve
	Lateral Femoral Cutaneous Nerve
	Femoral Nerve
	Obturator Nerve
	Posterior Femorocutaneous Nerves
	Femoral Nerve (Saphenous Branch)
	Common Fibular Nerve (superficial)
	Common Fibular Nerve (deep)
	Posterior Femorocutaneous Nerves
	Superior Cluneal Nerve
	Middle Cluneal Nerve
	Tibial Nerve (Sural)
	Tibial Nerve
	Coccygeal Plexus



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Implant Video
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Sacral Tarlov perineurial cysts: a systematic review of treatment options

Jan Alberto Paredes Mogica, MD,¹ Frank Feigenbaum, MD,² Julie G. Pilitsis, MD, PhD, MBA,³ Rudolph J. Schrot, MD, MAS,⁴ Anne Louise Oaklander, MD, PhD,⁵ and Elise J. B. De, MD⁶

INCLUDE WHEN CITING Published online December 15, 2023; DOI: 10.3171/2023.9.SPINE23559.

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J Neurosurg Spine December 15, 2023

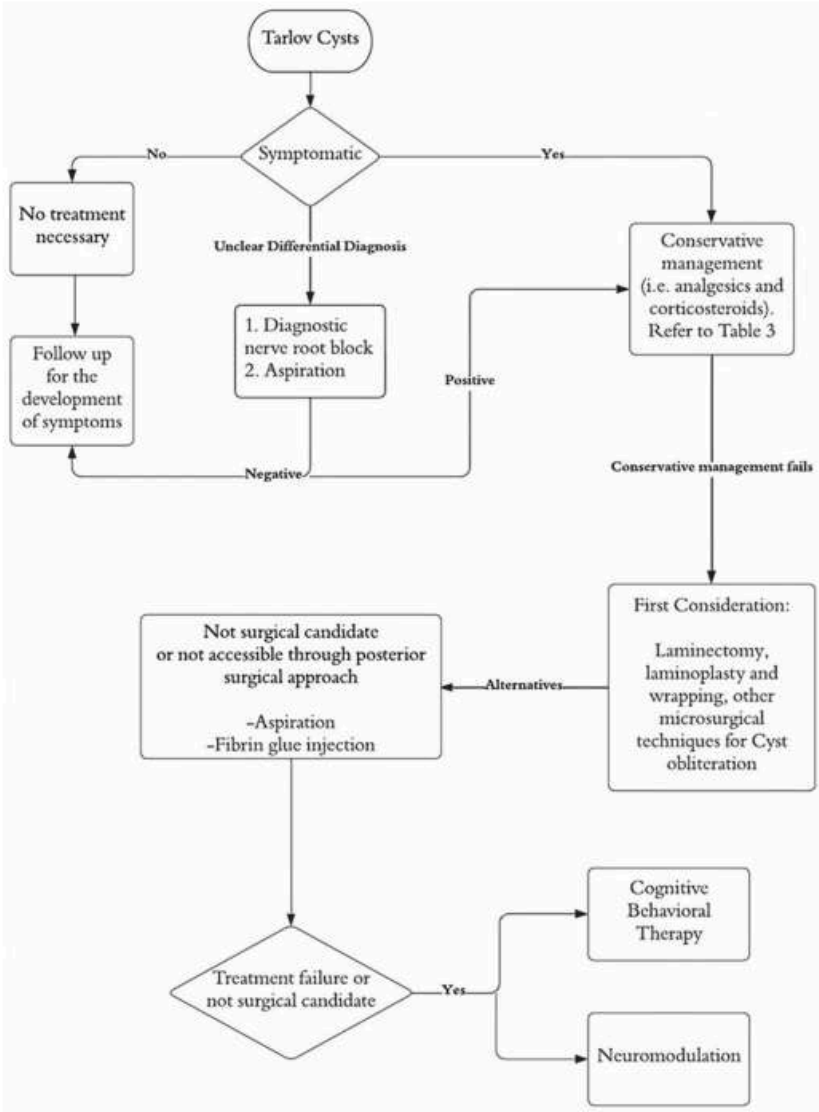


FIG. 4. Proposed algorithm for the management of TCs.

https://www.youtube.com/channel/UC-f3TIJ_cS_QGId9MVIB6sg
http://www.youtube.com/@AvantUrology



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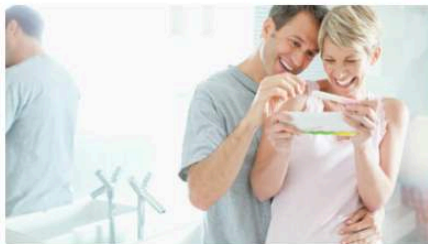
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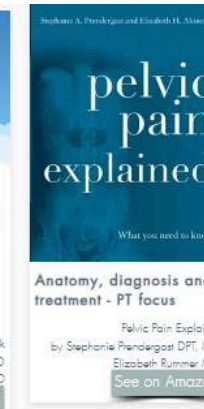
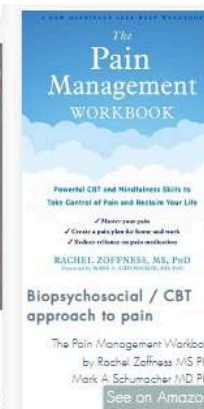
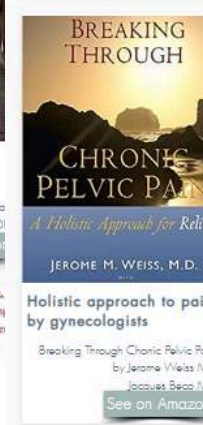
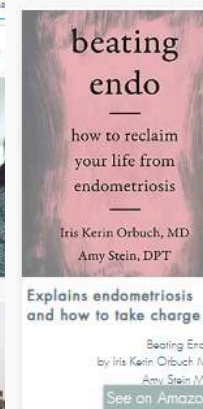
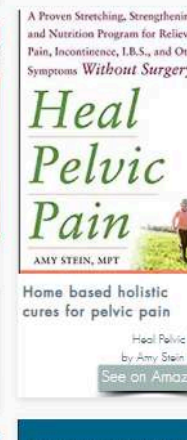
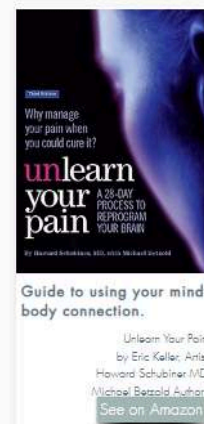
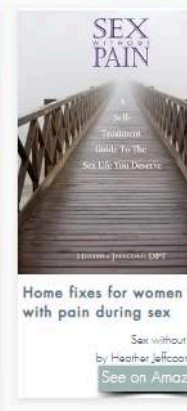
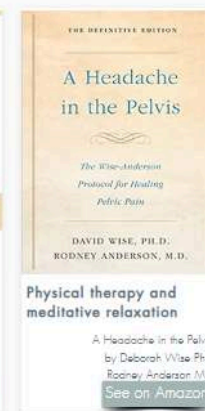
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This hand-picked list of books is recommended by many of our authors to their patients. Use these resources to learn more ...and improve quality of life.



Websites

- American Urogynecological Society (AUGS): <https://www.voicesforpfd.org/>
- American College of Ob-Gyn: <https://www.acog.org/>
- American Physical Therapy Association: <https://www.apta.org/>
- Herman Wallace Institute: <https://pelvicrehab.com/>
- Beth Shelly DPT: <https://www.bethshelly.com/new-patients/pelvic-pain-and-spasms/>
- Global Pelvic Health Alliance: <https://pelvicguru.com/>
- Endometriosis Association: <https://endometriosisassn.org/>
- National Health Service (NHS.UK):
 - <https://www.nhs.uk/conditions/endometriosis/>
 - <https://www.nhs.uk/conditions/fibroids/>
 - <https://www.nhs.uk/conditions/vulvodynia/>
 - <https://www.nhs.uk/conditions/pelvic-inflammatory-disease-pid/>
 - <https://www.nhs.uk/conditions/pelvic-pain/>
 - <https://www.nhs.uk/conditions/pudendal-neuralgia/>
- International Foundation for Functional Gastrointestinal Disorders: <https://iffgd.org/>
- Interstitial Cystitis Network: <https://www.ic-network.com/>
- Interstitial Cystitis Association: <https://www.ichelp.org/>
- International Pelvic Pain Society: <https://www.pelvicpain.org/>
 - <https://www.pelvicpain.org/public/resources/educational-resources/informational-handouts>
 - <https://app.v1.statusplus.net/membership/provider/index?society=ipps&t=public>
- Facing Pelvic Pain: Video and Written Resources on all Causes of Pelvic Pain:
 - <https://www.facingpelvicpain.org/pain-in-pelvis-patient-education>
- Toronto Academic Pain Medicine Institute:
 - <https://tapmipain.ca/patient/managing-my-pain/>
- World Federation for Incontinence and Pelvic Problems: <https://wfipp.org/>
- Vulvodynia Association: <https://www.nva.org/>
- Vulvar Pain Foundation: <https://www.thevpfoundation.org/>
- Pudendal Neuralgia Association: <https://www.pudendalassociation.org/>
- Pudendal HOPE: <http://www.pudendalhope.info/>
- Neuropathy Commons: <https://neuropathycommons.org/>

AUA Course 013IC - 10 Must-Knows for Pelvic Pain - To Always Do and Never Miss

Friday May 15, 2026 1:30 PM – 3:30 PM

Five experts impart what they want learners to ALWAYS CATCH and NEVER MISS in the approach to pelvic pain. These must-knows will be presented in clear, highly visual image and video-rich case vignettes, bringing medical and surgical pearls alive through real life case examples. The course is ideal for APPs and MDs to attend together for practice building, or for trainees to optimize efficiency in approach to pelvic pain. This year's course builds on the foundation of our 2025 course, carrying many of the same themes (differential diagnosis, multispecialty care, surgical versus medical management).

Objectives:

- Recognize 5 essential oft-missed situations with pelvic pain and address like an expert
- Manage 5 foundational causes of pelvic pain we know you can master
- Offer patients with pelvic pain relevant surgeries and procedures, diagnostics and medications.
- Triage multidisciplinary needs that fall outside of Urology according to guidelines.

Course Schedule – 2 Hours		
10 min	1 - Introduction of Speakers - Stated assumptions of audience knowledge	Elise De
15 min	2 - Always Do – Identify HTPFD Never Miss – Pudendal neuralgia	Ken Peters
15 min	3 - Always Do – Look beyond IC Never Miss – Sacral pathology	Elise De
15 min	4 - Always Do – ID bladder centric pain pre- cystectomy Never Miss – Pyocystis	Brian Inouye
15 min	Discussion, Q and A, Audience Cases	Audience and Faculty
10 min	5 - Always do – Use targeted therapies prior to excision Never miss - Upper tract cause of scrotal content pain	Sijo Parekattil
15 min	6 - Always Do – Examine the vulva Never Miss – Endometriosis	Jennifer Pollard
20 min	Facilitated Discussion, Q and A, Audience Cases	Audience and Faculty
5 min	7 - Tools for Practice	Elise De

Elise JB De, MD (she/her/hers)
Professor Urology, Ob Gyn, Neurology- Medical Director, MultiD Pelvic Health
Albany Medical Center, Albany New York
Instructional Course Director

Kenneth Peters, MD (he/him/his)
Professor and Chair of Urology
Oakland University William Beaumont School of Medicine

Brian Inouye MD (he/him/his)
Assistant Professor of Urology
Albany Medical Center, Albany New York

Sijo Parekattil, MD (he/him/his)
Avant Concierge Urology

Jennifer Pollard, MD (she/her/hers)
Assistant Professor of Obstetrics and Gynecology
Albany Medical Center, Albany New York

QR CODES to Link to online Videos of Pudendal Nerve Implant Procedures

Ishio-rectal Pudendal
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ICS Global Pelvic Pain Exchange Curriculum: QR Codes

Main page

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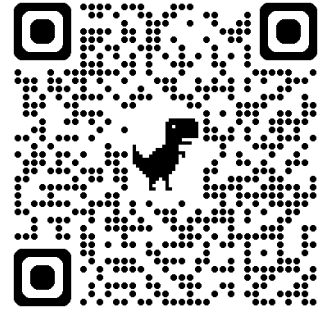
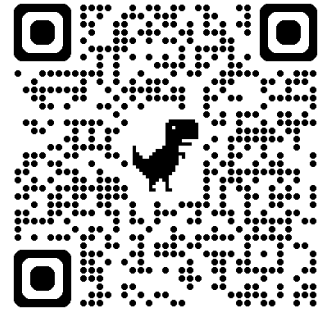
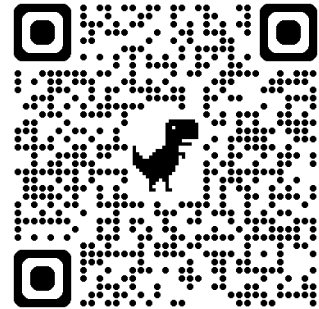


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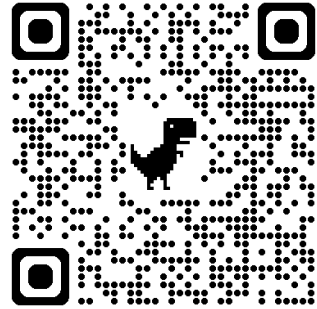


Meet the Curriculum Team

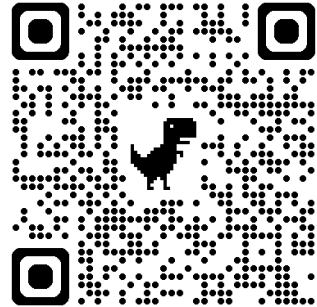


“HOW TO”: BASIC APPROACHES TO PELVIC PAIN

Link to entire section



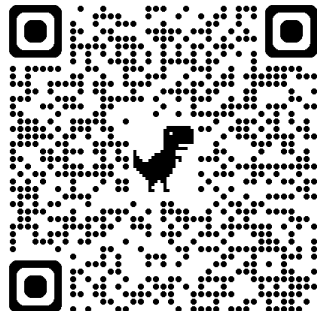
1. Introduction to Basic Approaches to Pelvic Pain (1:27)
Miklos Romics, MD, PhD, FEBU



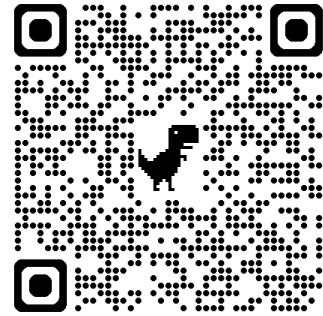
2. The Right Attitude for the Assessment of Pelvic Pain:
Patient Perspective (13:06)
Jill Osborne, MA



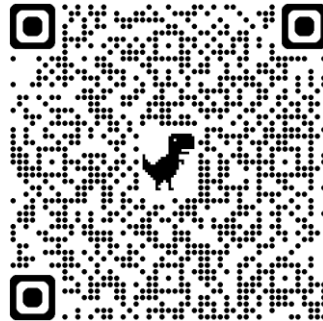
3. Differential Diagnosis in Pelvic Pain (21:42)
Elise De, MD



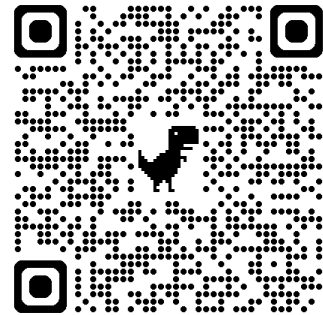
4. Questions and Comments – Basic Approaches – Part 1 (3:07)



5. Basic Physical Exam Findings: Uro, Gyn, Colorectal, Ortho, and Neuro (19:38)
Elise De, MD; Jennifer Pollard, MD; Peter Onody, MD;
Andrew Dubin, MS, MD



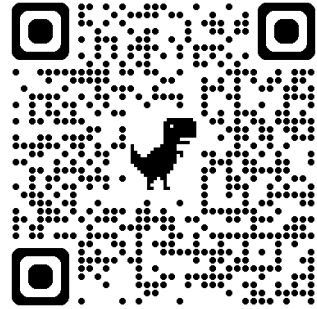
6. General Approach to Imaging Pelvic Pain (11:01)
Mukesh Harisinghani, MBBS



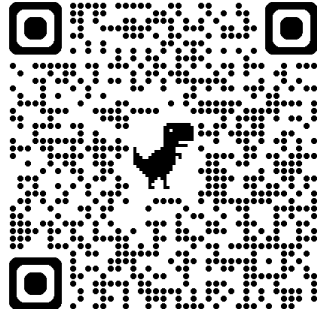
7. Multidisciplinary Care Team: Building Tools and Basic Approaches (5:00)
Miklos Romics, MD, PhD, FEBU



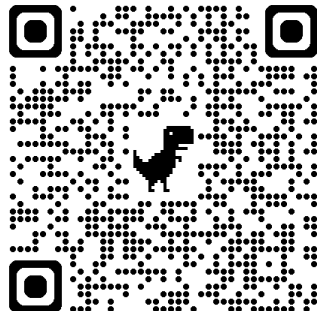
8. Trauma Informed Care (10:05)
Nelly Faghani, PT



9. Questions and Comments - Basic Approaches – Part 2

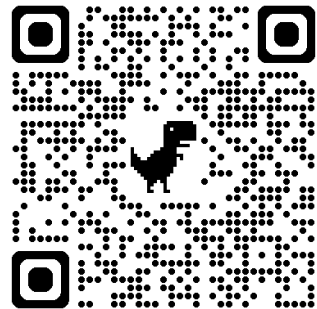


10. Closing and Resources for Pelvic Pain (1:20)
Elise De, MD

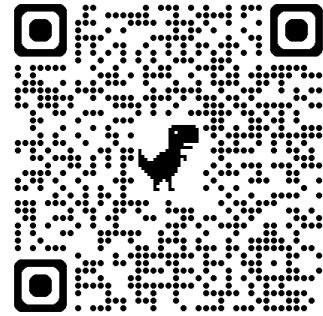


ORGAN-BASED PELVIC PAIN

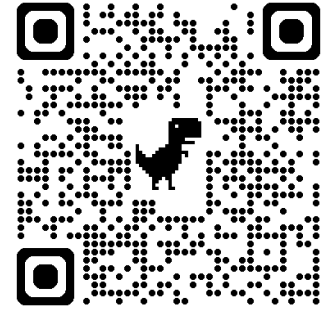
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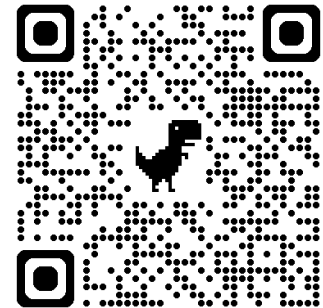
1. Introduction to Organ-Based Pain (2:08)
Elise De, MD



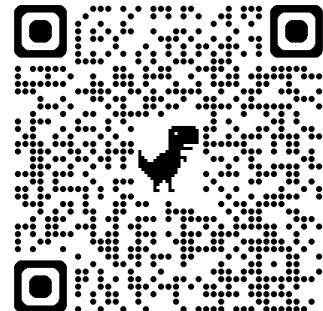
2. Gynecology: Internal Causes for Pain
Augusta Morgado Ribeiro, MD



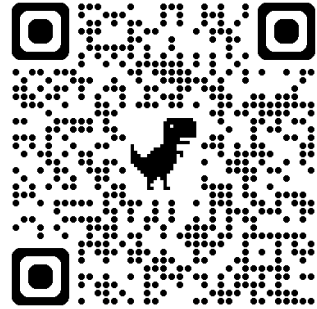
3. Gynecology: External Causes for Pain
Rachel Rubin, MD



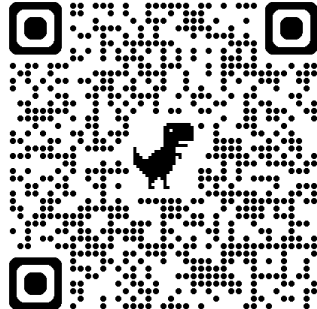
4. Questions and Comments – Organ-Based Pain – Part 1
(10:28)



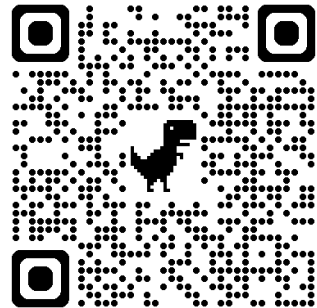
5. Urological Causes for Pelvic Pain (12:23)
Miklos Romics, MD, PhD, FEBU



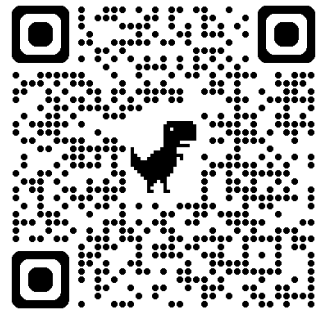
6. Scrotal Pain: Contemporary Management for Chronic Orchialgia (11:04)
Sijo Parakattil, MD



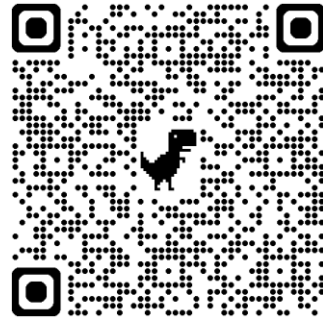
7. Intro to Colorectal Pain (2:24)
Miklos Romics, MD, PhD, FEBU



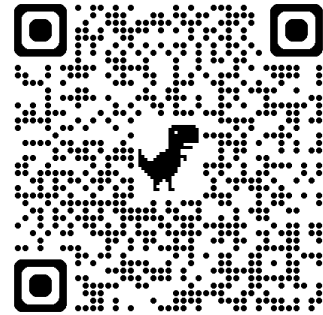
8. Anorectal Pain (13:12)
Peter Onody, MD



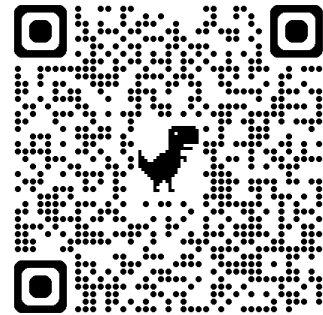
9. Case Presentation: Difficult Case Involving Cystocele and Prolapse (21:57)
Peter Onody, MD



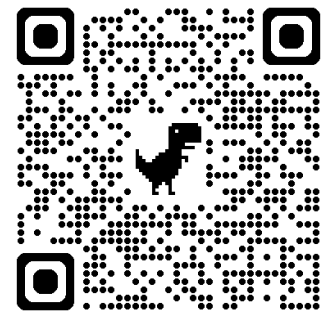
10. Multidisciplinary Diagnoses of Pelvic/Rectal Pain (23:31)
Guillaume Meurette, MD, PhD



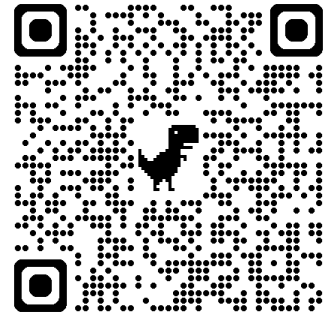
11. Anorectal Pain: GI/Neurogastroenterology Perspective (17:08)
Barbara Nath, MD



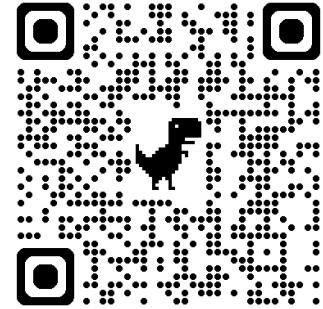
12. Imaging for Organ-Based Pelvic Pain (11:06)
Mukesh Harisinghani, MBBS



13. Questions and Comments – Organ-Based Pain – Part 2
(8:28)

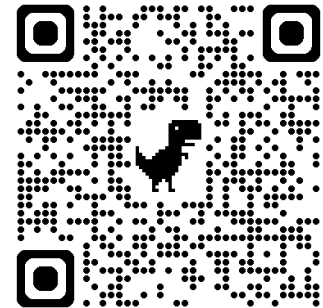


14. Closing and Spontaneous Case (5:56)
Philip Bearn, MD

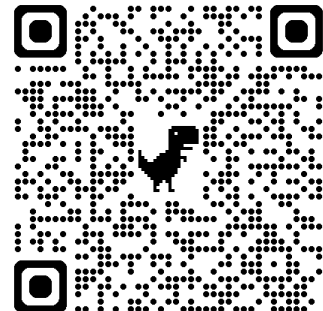


FOCAL NEUROLOGICAL PELVIC PAIN

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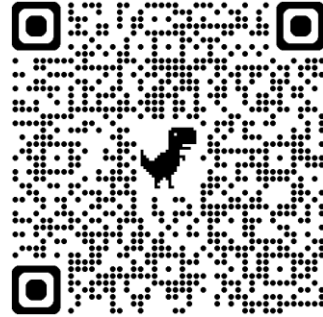
1. Basic Neurological Exam for Pelvic Pain (5:34)
Daniel Milanovich, MD



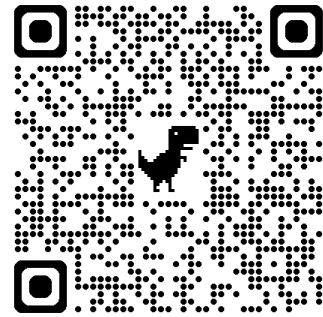
2. Neuropelveology Approach to Pelvic Pain: Intrapelvic Nerve Entrapments (16:13)
Nucelio Lemos, MD, PhD



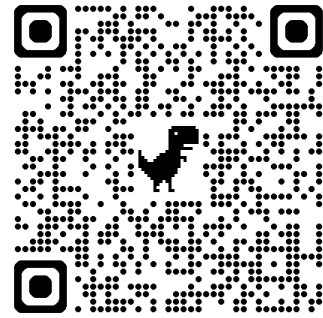
3. Role of Spinal Radiculopathy with a Focus on Tarlov Cysts (21:16)
Rudolph Schrot, MD, MAS, FAANS



4. Complex Pelvic Pain: A Neurologic Perspective (15:00)
Charles Argoff, MD

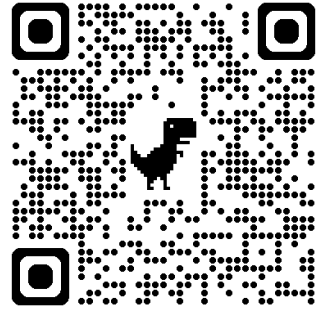


5. Questions and Comments – Focal Neurological Pain (20:42)

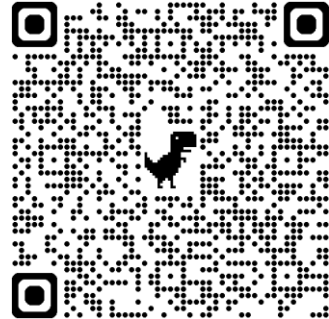


PUDENDAL NEUROPATHY AND PELVIC NERVE ENTRAPMENT

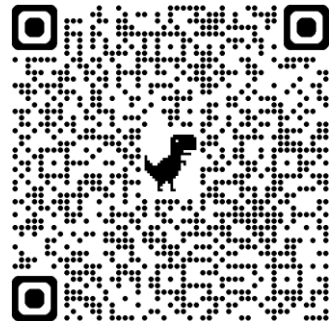
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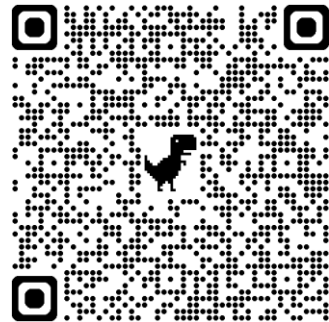
1. Introduction to Pudendal Neuropathy and Pelvic Nerve Entrapment (1:47)
Elise De, MD



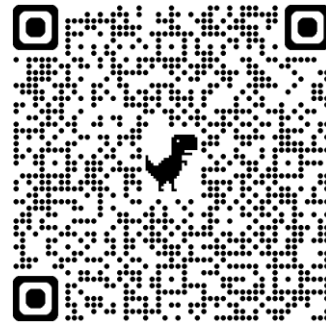
2. Case Presentation: Difficult Case Involving Pudendal Neuropathy (4:18)
Miklos Romics, MD, PhD, FEBU



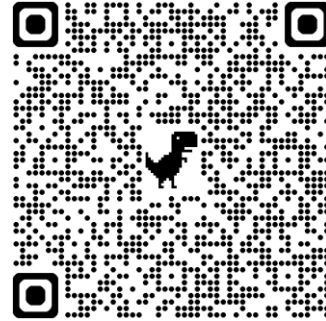
3. Interventional Options for Pudendal and Other Neuropathy (14:26)
Antje Barreveld, MD, PhD



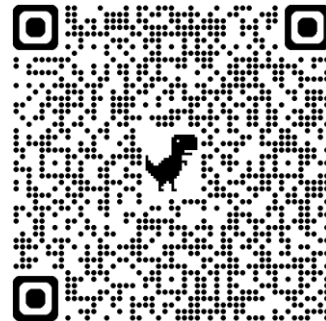
4. Neuropelveology Approach to Pelvic Pain: Focus on Pudendal Nerve (23:53)
Nucelio Lemos, MD, PhD



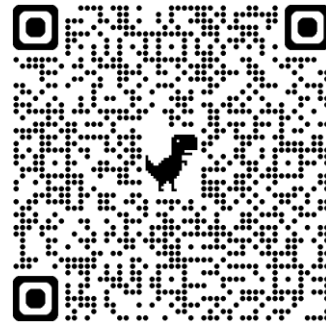
5. Clues, Physical Exam, and Electrodiagnostics in Pudendal Neuropathy (18:38)
Andrew Dubin, MD, MS



6. Case Presentation: Penile Frostbite – A Case We Solved with Complex Pharm (13:16)
Andrew Dubin, MD, MS

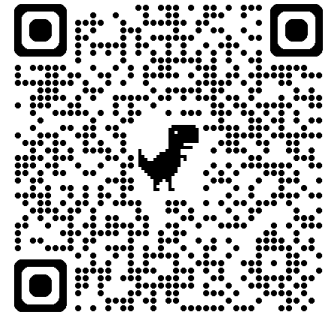


7. Questions and Comments – Pudendal Neuropathy and Pelvic Nerve Entrapment (8:27)



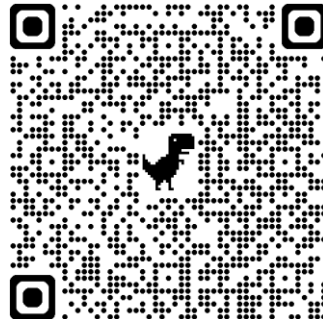
**PELVIC FLOOR MUSCLE TONE (PFM): WHY IS IT IMPORTANT
AND HOW TO CHANGE IT**

[Link to entire section](#)



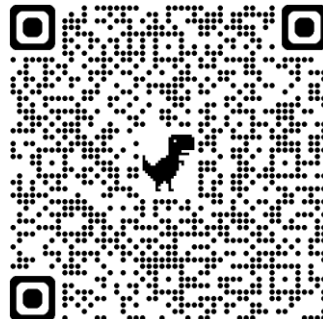
1. Intro and the Big Picture: PFM Dysfunction and Myalgia (5:32)

Beth Shelly, PT, DPT

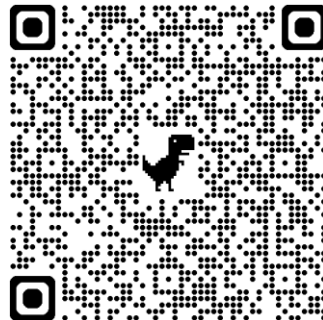


2. Disorders of Skeletal Muscle Tone and Treatments (15:22)

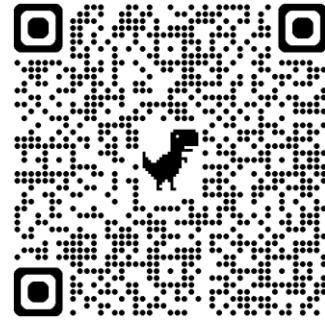
Andrew Dubin, MD, MS



3. PFM Tone Assessment: Role in Pelvic Pain and Conservative Treatments (30:09)



4. Questions and Comments – PFM Tone (7:40)

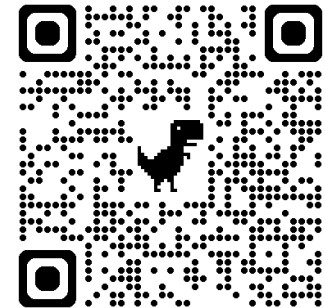


5. Case Presentation: Successful Case Involving Proctalgia, Tension Myalgia after Mesh Rectopexy (9:24)
Sarina Niurkina, PT

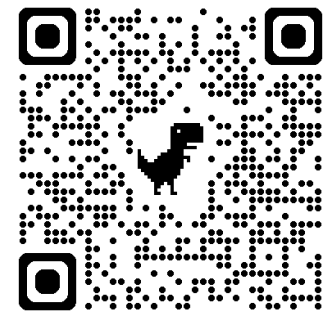


PHYSIOTHERAPY OF PELVIC PAIN

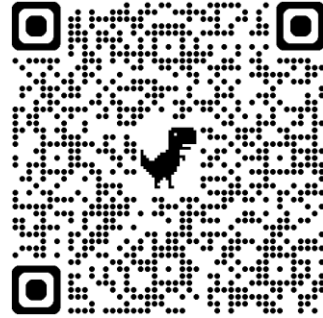
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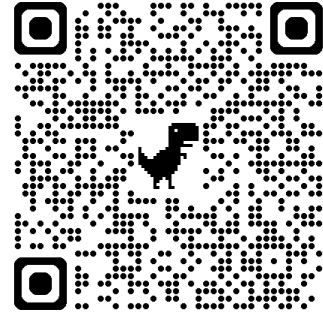
1. Whom I Send for Pelvic PT (5:25)
Andrew Dubin, MD, MS



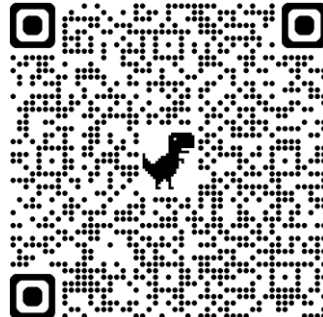
2. Case Presentation: Chronic Testicular/Penile Pain
Refractory to PT (12:19)
Liz O'Shaughnessy, PT, DPT



3. Beginner Pelvic PT for Chronic Pelvic Pain (20:48)
Beth Shelly, PT, DPT



4. Case Presentation: Successful Case Involving
Hypertonic Pelvic Floor in Multiple Sclerosis (12:56)
Carin Cappadocia, PT, DPT

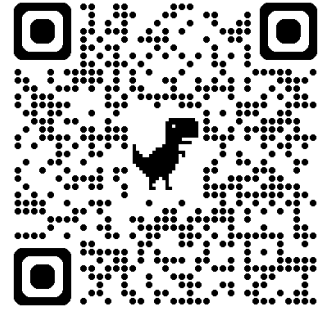


5. Pelvic Floor PT: Regional Difficulties and Opportunities
(17:35)
Marina Osokina, PT

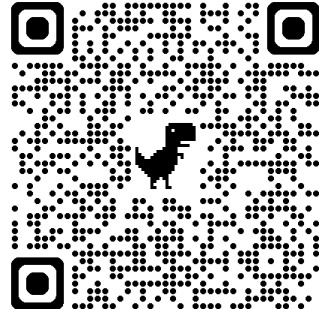


HIP CAUSES OF PELVIC PAIN

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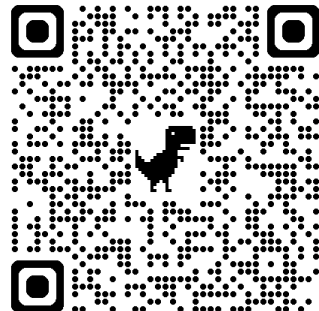
1. Introduction: When to Suspect the Hip (7:31)
Elise De, MD



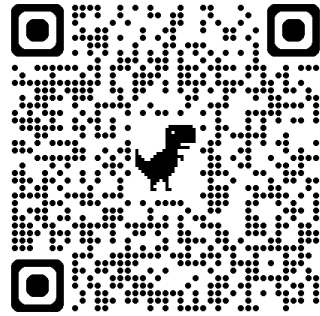
2. Case Presentation: Difficult Case Involving Dyskinesia
Puborectalis (10:37)
Benedetto Giardulli, MSc, PhD



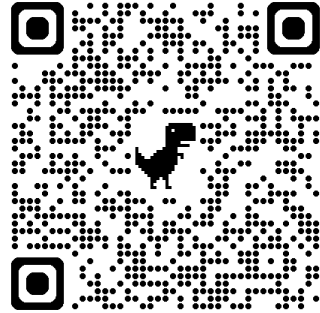
3. Hip Without Prior Injury: Deep Gluteal Syndrome (18:43)
Hal David Martin, DO, FAAOS



4. Case Presentation: Successful Case Involving Broken Coccyx (9:28)
Tatiana Shmakova, MD

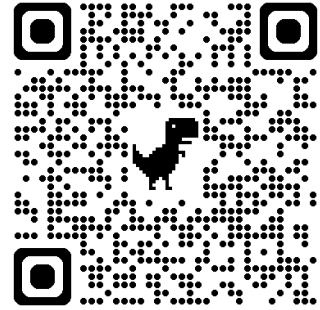


5. Hip/Pelvic Pain in Setting of Prior Injury (9:28)
Andrew Dubin, MD, MS

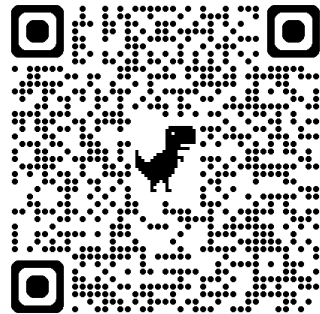


NEURODIAGNOSTICS FOR PELVIC PAIN

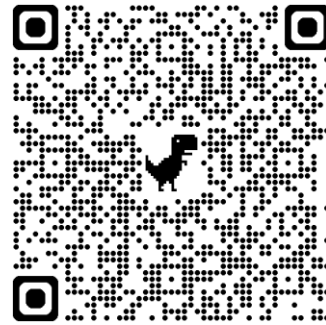
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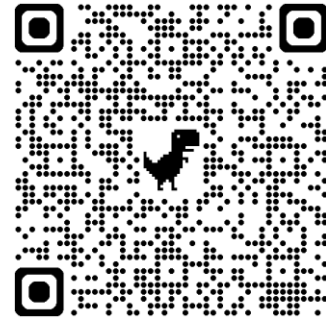
1. Introduction to Neurodiagnostics for Pelvic Pain (1:13)
Elise De, MD



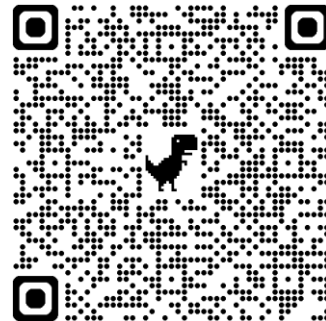
2. Case Presentation: Difficult Case Involving
Endometriosis and S3 Nerve (6:19)
Suzan Goldman, MD, PhD



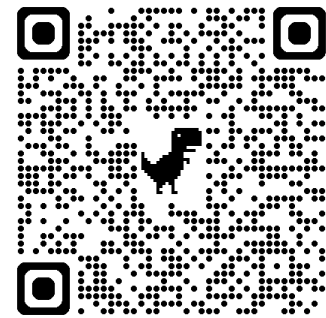
3. Indications for Neurodiagnostics in Chronic Pelvic Pain
(14:22)
Daniel Milanovich, MD



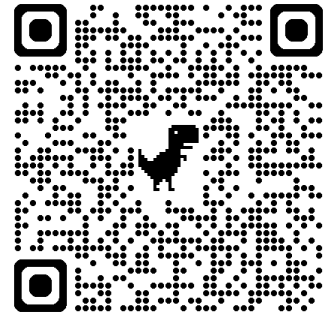
4. Case Presentation: Successful Case Involving Prostatitis,
Bladder Outlet Obstruction, and Hernioplasty (8:41)
Miklos Romics, MD, PhD, FEBU



5. Electrodiagnostics and Clinical Considerations (34:22)
Andrew Dubin, MD, MS

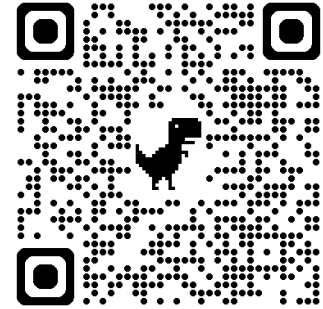


6. MRI Tractography on Pelvic Neuropathies (17:01)
Suzan Goldman, MD, PhD

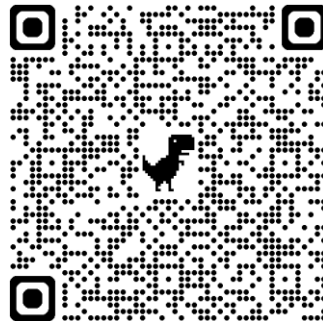


TENS, BLOCKS, STIMULATION, AND PUMPS FOR PELVIC PAIN

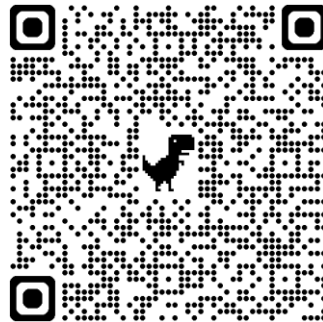
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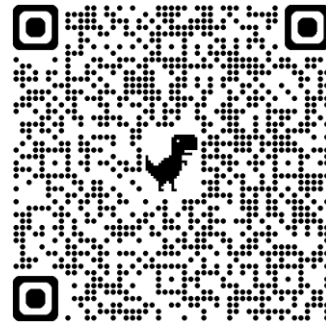
1. Case Presentation: Difficult Case Involving Sjogren's Syndrome, Failed Interstim, and Botox (5:31)
Elise De, MD



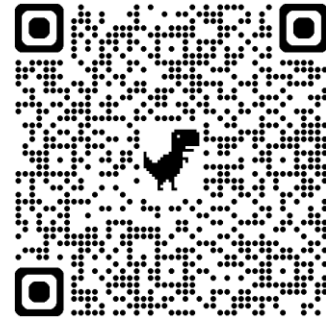
2. Noninvasive Stimulation: TENS in the Treatment of Chronic Pelvic Pain (7:32)
Beth Shelly, PT, DPT



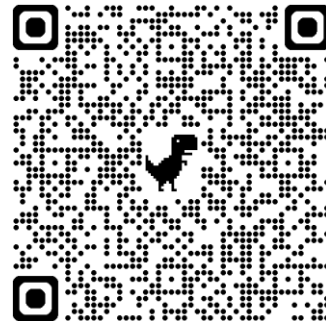
3. Percutaneous Neuromodulation: Peripheral Nerve Blocks “101” (11:37)
Antje Barreveld, MD, PhD



4. Peripheral Neuromodulation for Chronic Pelvic Pain (11:12)
Jason Gilleran, MD



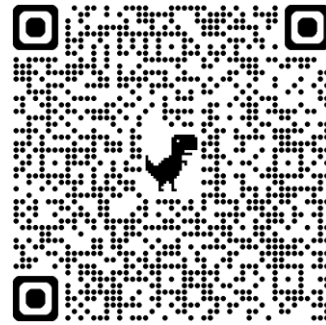
5. Intraspinal Stimulation for Pelvic Pain: Info for Referring Providers (22:42)
Kevin Mansfield, MD, FAANS



6. Infusion Pumps: The 5 W's of INtrathecal Drug Delivery for Severe Chronic Pain (13:44)
Charles Argoff, MD

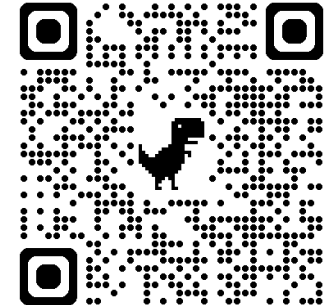


7. Case Presentation: Successful Case Involving TENS Treatment (8:35)
Marton Weidl, PhD



SYSTEMIC PAIN INVOLVING THE PELVIS

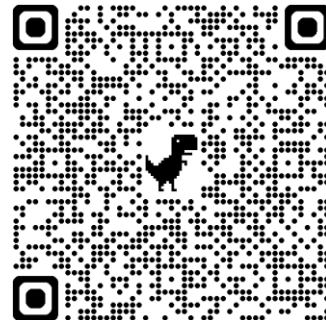
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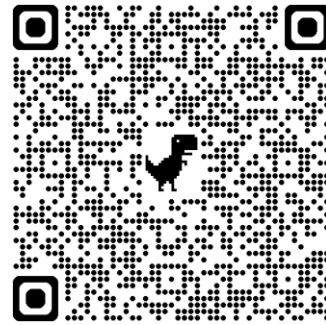
1. Introduction to Systemic Pain Involving the Pelvis (1:43)
Miklos Romics, MD, PhD, FEBU



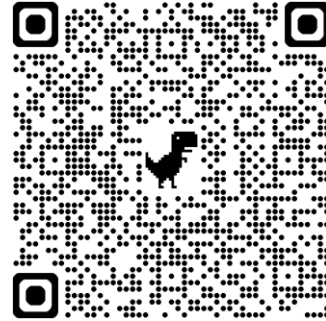
2. Case Presentation: Difficult Case Involving Spinal Stenosis Herniated Discs (11:35)
Elise De, MD



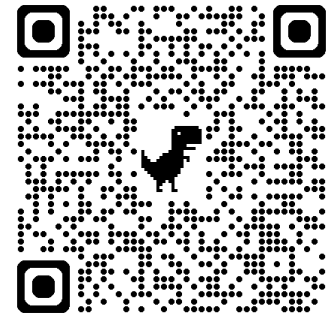
3. When is Chronic Pelvic Pain Associated with a Neurological or Systemic Disorder (15:16)
Charles Argoff, MD



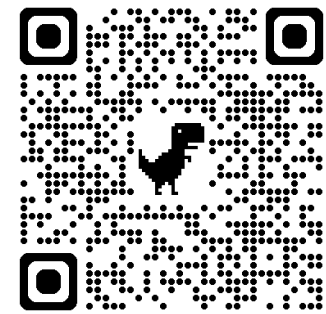
4. Case Presentation: Successful Case Involving Pelvic Dys-synergia and Stress-Induced Pelvic Pain (10:25)
Beth Shelly, PT, DPT



5. Rheumatologic Perspective to Chronic Pelvic Pain (20:01)
Richard Bryan, MD

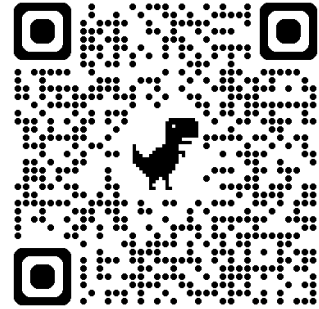


6. Managing Pelvic Pain (24:55)
Tania Di Renna, MD

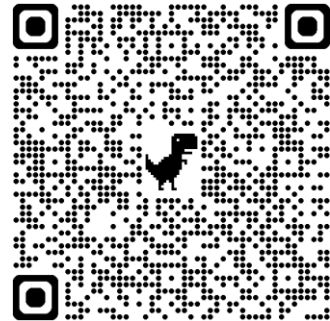


PAIN MANAGEMENT AND PHARMACOLOGY FOR PELVIC PAIN

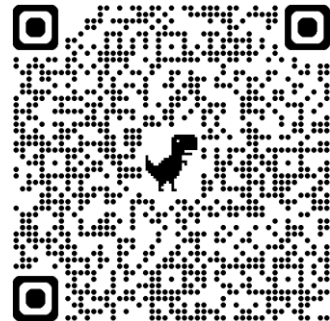
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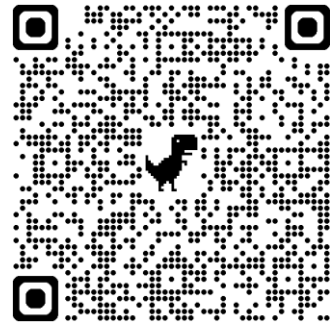
1. Introduction to Pain Management and Pharmacology for Pelvic Pain (2:02)
Elise De, MD



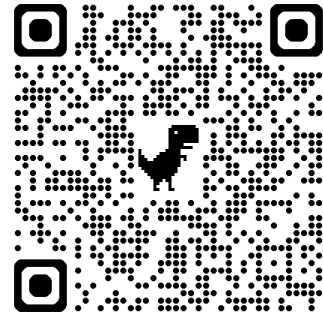
2. Pain Pathophysiology & Difficult Case Involving Hysterectomy and Adenomyosis (23:00)
Tania Di Renna, MD



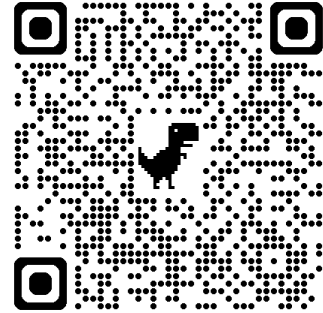
3. Case Presentation: Difficult Case Involving Medical Management (7:19)
Balazs Laskoi, MD, FIPP



4. Pharmacotherapy in Pain Management (17:18)
Charles Argoff, MD



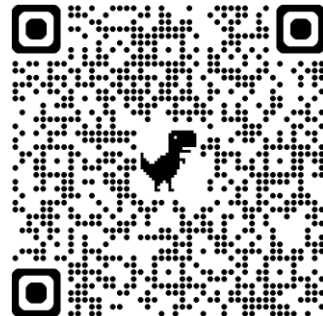
5. Pharmacology of Pain (17:50)
Andrew Dubin, MD, MS



6. Questions and Comments – Pharmacology for Pain
(12:17)

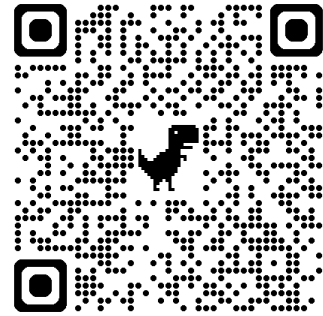


7. Questions and Comments – Pharm and Psych (3:11)



PSYCHOLOGICAL AND COGNITIVE APPROACH TO PAIN,
PATIENT EMPOWERMENT

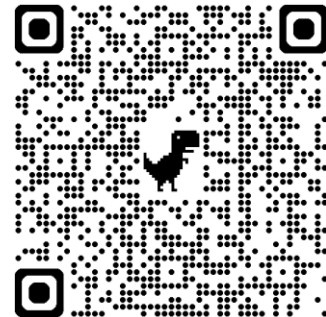
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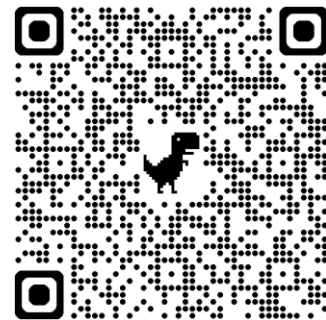
1. Cognitive Behavioral Therapy for Interstitial Cystitis/Bladder Pain Syndrome (13:40)
Lindsey McKernan, PhD, MPH



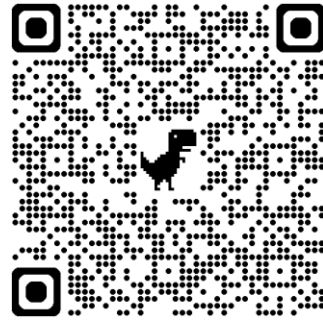
2. Patient Empowerment in Pain (27:22)
Derek Coe, MS



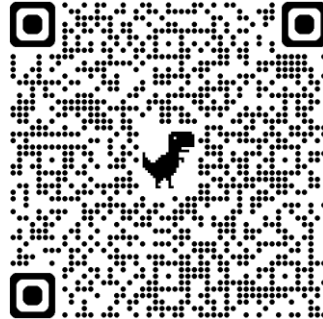
3. Patient Engagement (13:17)
Jill Osborne, MA



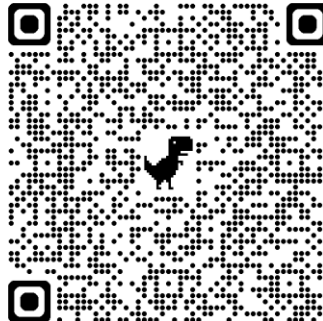
4. Psychological Aspects of Pelvic Pain (11:55)
Anna Guttenger, PhD



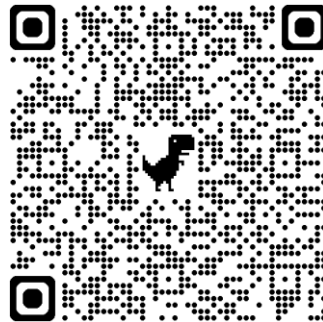
5. Yoga for Pelvic Pain and Chair Dwellers (14:51)
Dustienne Miller, PT, MS, CYT



6. Case Presentation: Difficult Case Involving Acute Prostatitis and Nerve Block (25:57)
Eva Pinter, PhD; Nora Nyilas, MD



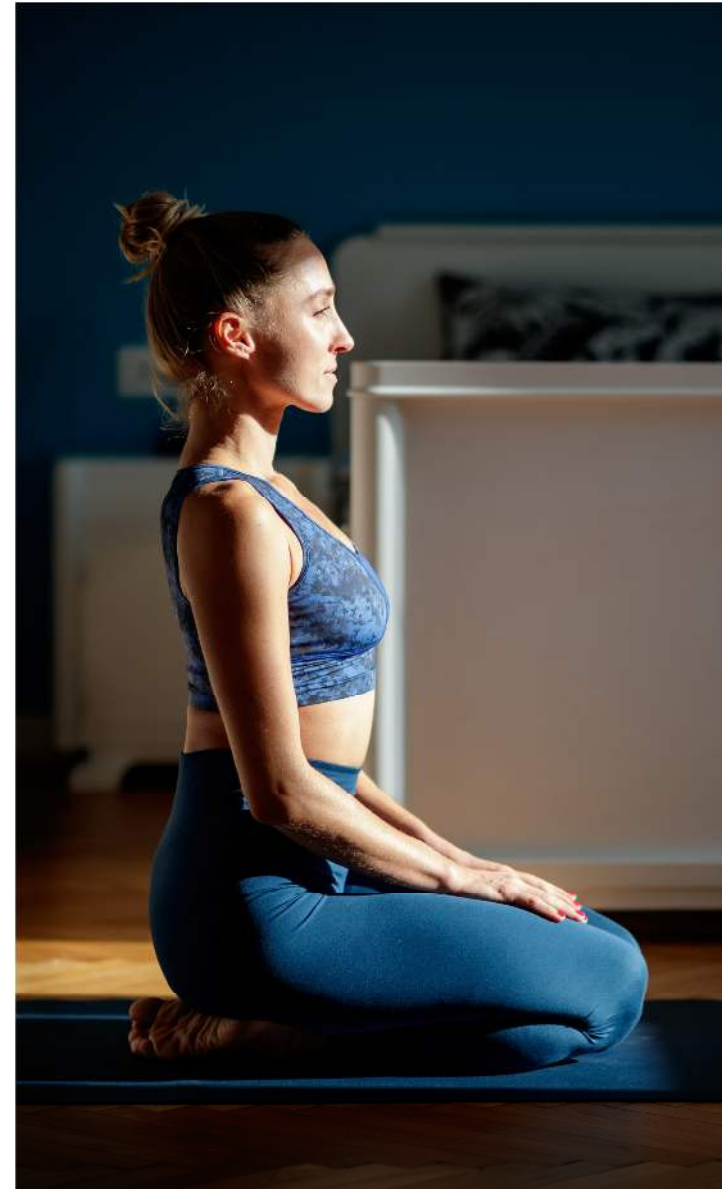
7. Psychological Experience of Providers: Healing the Healer (31:17)
Sue Morris, PsyD



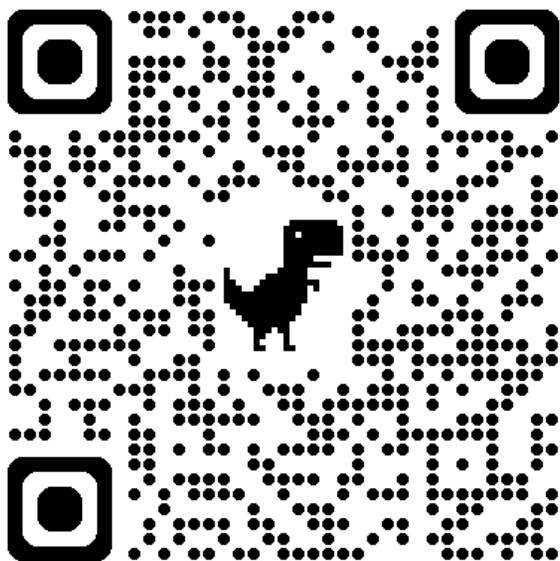
8. Closing and Resources (1:08)
Elise De, MD



Tools for Practice
In
CPP



ICS Global Pelvic Pain Exchange Curriculum



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Comprehensive Multidisciplinary Curriculum on Pelvic Pain

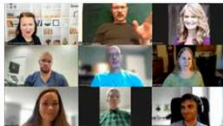
This educational series is the first of its kind, providing a full start to finish curriculum on diagnosis and management of pelvic pain. It is designed for the educational and collegial needs of multidisciplinary pelvic health groups (Urologists, Gynecologists, Physiotherapists, Nurses, Radiologists, Neurologists, Interventional Pain Specialists, Physical Medicine and Rehabilitation Physicians, Rheumatologists, Psychologists, Basic Scientists, Colorectal Surgeons and others) serving those with pelvic pain around the world.

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Discover the Vision Behind the Curriculum.

[Table of Contents](#)
View the detailed index of sections and videos.

ICS Global Pelvic Pain Exchange Curriculum

12 Sections



"How To": Basic Approaches to Pelvic Pain
10 Episodes



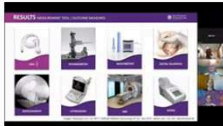
Organ-Based Pelvic Pain
14 Episodes



Focal Neurological Pelvic Pain
5 Episodes



Pudendal Neuropathy and Pelvic Nerve Entrapment
7 Episodes



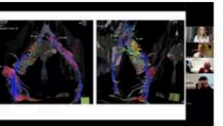
Pelvic Floor Muscle Tone (PFM): Why it is important and how to ...
5 Episodes



Physiotherapy of Pelvic Pain
5 Episodes



Hip Causes of Pelvic Pain
5 Episodes



Neurodiagnostics for Pelvic Pain
8 Episodes



TENS, Blocks, Stimulation, and Pumps for Pelvic Pain
7 Episodes



Systemic Pain Involving the Pelvis
6 Episodes



Pain Management and Pharmacology for Pelvic Pain
7 Episodes



Psychological and Cognitive Approach to Pain, Patient ...
8 Episodes



INTERNATIONAL CONTINENCE SOCIETY

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Search ICS

A systematic review of the literature using the MEDLINE® database (search dates 1/1/83-7/22/09) was conducted. Peer-reviewed publications relevant to the diagnosis and treatment of IC/BPS. The review yielded an evidence-based synthesis of treatment articles after application of inclusion/exclusion criteria. The AUA Update Literature Review process was used to synthesize the evidence. Additional systematic reviews were conducted in 2011 and 2012. These publications were added to the body of the guideline. Additional treatment articles were added to the guideline. See text and algorithm for details.

GUIDELINE

CUA guideline: Diagnosis and treatment of bladder pain syndrome

Consensus panel co-chairs: Ashley Cox, MD, MSc, FRCSC;¹ Genevieve Nadeau, MD, MSc, FRCSC²
Consensus panel members: J. Curtis Nickel, MD, FRCSC;⁴ Les Jacques Corcos, MD, FRCSC;⁶ Joel Teichman, MD, FRCSC⁷

¹Department of Urology, Dalhousie University, Halifax, NS, Canada; ²Department of Urology, North York General Hospital, Toronto, ON, Canada; ³CHU de Québec, Division of Urology, Québec, QC, Canada; ⁴Queens University, Kingston, ON, Canada; ⁵Department of Surgery, University of Toronto, Toronto, ON, Canada; ⁶McGill University, Montreal, QC, Canada; ⁷University of British Columbia, Vancouver, BC, Canada

Cite as: Can Urol Assoc J 2016;10(5-6):E136-55. <http://dx.doi.org/10.5489/cua.3786>
Published online May 12, 2016.

Methodology

The following guidelines were based on MEDLINE and PUBMED searches of English language literature, in addition to consensus conference proceedings. Levels of evidence and grades of recommendation were assigned for each investigation and treatment, as per the modified Oxford Centre for Evidence-Based Medicine guidelines system. Although

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International Journal of
and Gynaecology



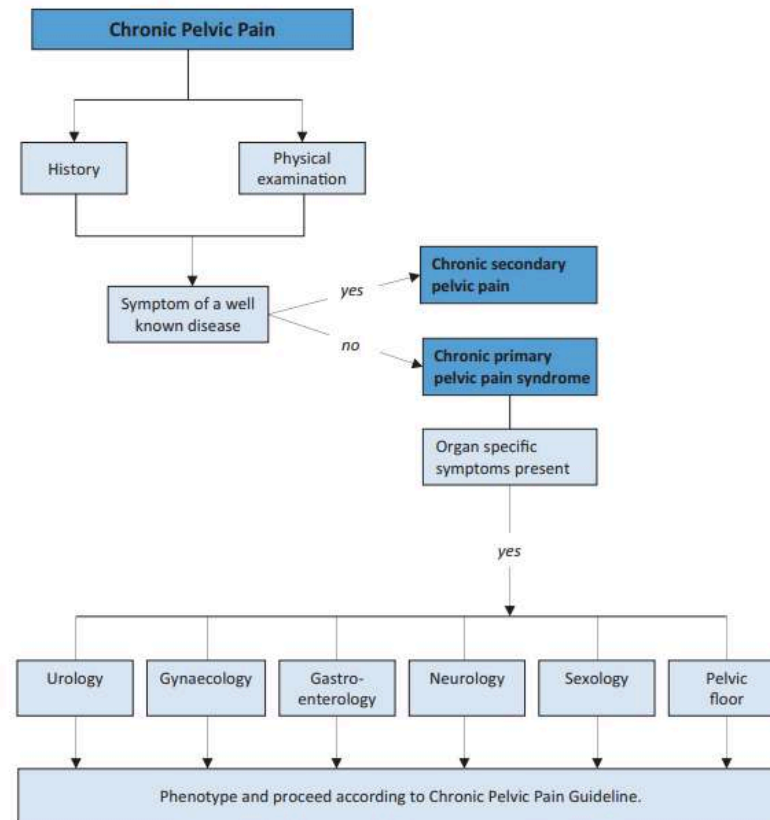
Royal College of
Obstetricians &
Gynaecologists

Bladder Pain Syndrome

December 2016

EAU Guidelines

Figure 1: Diagnosing chronic pelvic pain



Journal of Urology April 17 2025

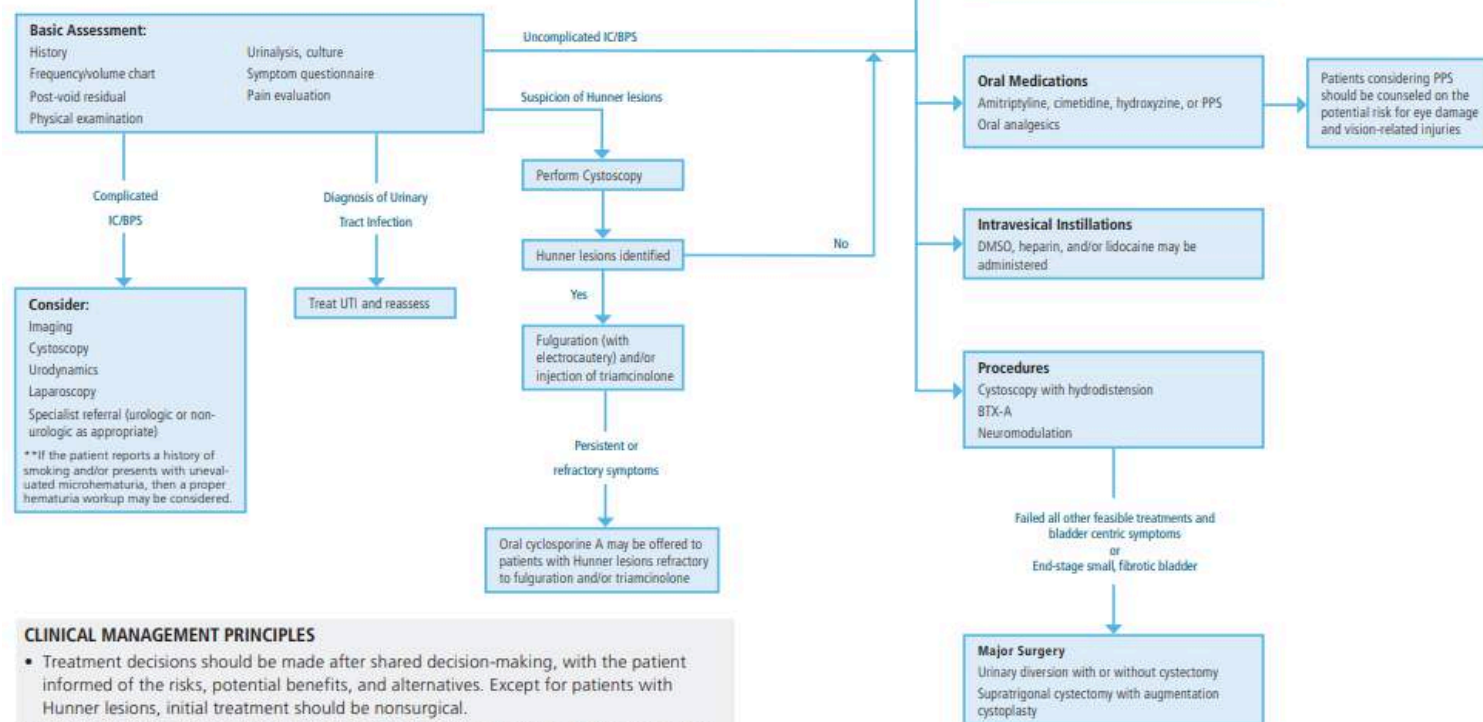
Diagnosis and Management of Male Chronic Pelvic Pain (Chronic Prostatitis/ Chronic Pelvic Pain Syndrome and Chronic Scrotal Content Pain): AUA Guideline: Part I

H. Henry Lai, MD; Michel A. Pontari, MD; Charles E. Argoff, MD; Larissa Bresler, MD, DABMA; Benjamin N. Breyer, MD; Roger Chou, MD; J. Quentin Clemens, MD, FACS, MSCI; Elise JB De, MD; R. Christopher Doiron, MD, MPH; Dane Johnson, MD; Erin Kirkby, MS; Susan M. MacDonald, MD; Jill H. Osborne, MA; Sijo J. Parekattil, MD; Beth Shelly, PT, DPT, WCS, BCB PMD

AUA Guideline IC/BPS

Figure One: IC/BPS Diagnosis and Treatment Algorithm

IC/BPS: An unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of more than six weeks duration, in the absence of infection or other identifiable causes.



CLINICAL MANAGEMENT PRINCIPLES

- Treatment decisions should be made after shared decision-making, with the patient informed of the risks, potential benefits, and alternatives. Except for patients with Hunner lesions, initial treatment should be nonsurgical.
- Initial treatment type and level should depend on symptom severity, clinician judgment, and patient preferences.
- Multiple, simultaneous treatments may be considered if it is in the best interests of the patient.
- Ineffective treatments should be stopped.
- Pain management should be continually assessed for effectiveness.
- The IC/BPS diagnosis should be reconsidered if no improvement occurs after multiple treatment approaches.

BTX-A: Onabotulinumtoxin A; DMSO: Dimethylsulfoxide; IC/BPS: Interstitial cystitis/bladder pain syndrome; PPS: Pentosan polysulfate; UTI: Urinary tract infection

The evidence supporting the use of Neuromodulation, Cyclosporine A and BTX-A for IC/BPS is limited by many factors including study quality, small sample sizes, and lack of durable follow up. None of these three therapies have been approved by the U.S. Food and Drug Administration for this indication. The panel believes that none of these interventions can be recommended for generalized use for this disorder, but rather should be limited to practitioners with experience managing this syndrome and willingness to provide long term care of these patients post intervention.

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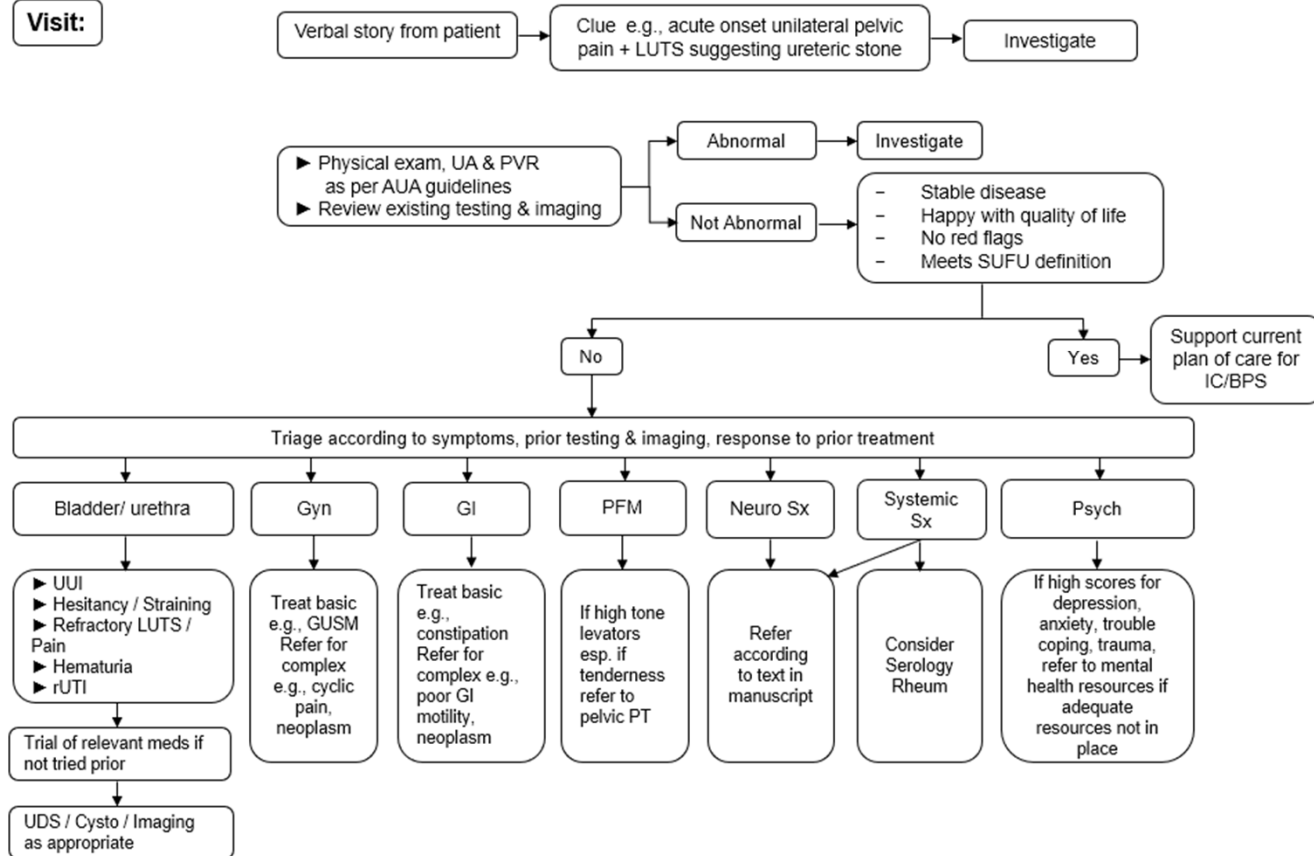
Clemens JQ, Erickson DR, Varela NP, Lai HH. Diagnosis and treatment of interstitial cystitis/bladder pain syndrome. J Urol. 2022;208(1):34-42

Approach to Patients Labelled with IC

Predocumentation:

- Comprehensive intake
 - Multidisciplinary symptom screening & review of symptoms
 - Catalogue of prior testing
 - Catalogue of prior trials of therapy

Visit:



International Pelvic Pain Society

www.pelvicpain.org

Healthcare Provider Assessment Form

INTERNATIONAL PELVIC PAIN SOCIETY HEALTHCARE PROVIDER ASSESSMENT FORM
www.pelvicpain.org

Neurologic (External)

Distribution	Normal	Right	Left
Iliohypogastric	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Ilioinguinal	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Obturator	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Genitofemoral	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Cluneal	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Lateral femoral cutaneous	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Pudendal Branch:	☐ Normal	☐ Allodynia ☐ Hyperalgesia	☐ Allodynia ☐ Hyperalgesia
Anal wink reflex	☐ Normal	☐ Absent	

Fibromyalgia Positive Tender Points AND Body Pain Map

Left Right Right Left

Add comments, including pain severity and radiation patterns:

info@pelvicpain.org www.pelvicpain.org

Last revised 6.3.19

Patient Pelvic Health History Form

INTERNATIONAL PELVIC PAIN SOCIETY PELVIC HEALTH HISTORY FORM
www.pelvicpain.org

10. Pain History, Description and Contributing Factors

When did your pain begin? Month: Year: ☐ Unsure

Please use your own words to describe your pain:

How did your main pain begin, do you recall a specific incident that occurred when your pain first began? (Check one)

☐ Injury at home ☐ Injury at work/school ☐ Injury in other setting ☐ Motor vehicle crash
☐ After surgery ☐ Cancer ☐ Medical condition other than cancer
☐ No obvious cause/ do not know a specific incident ☐ Other:

How did your pain begin? (Check only one) ☐ Suddenly ☐ Gradually

How long has your main pain been present? (Check only one)
☐ Less than 3 months ☐ 3-12 months ☐ 12 months-2 years ☐ 2-5 years ☐ More than 5 years

Since your pain began, is your pain: (Check only one)
☐ No different ☐ Getting better ☐ Getting worse ☐ I don't know

Which statement best describes your pain? (Check only one)
☐ Always present (always the same intensity)
☐ Always present (level of pain varies)
☐ Often present (pain free periods less than 6 hours)
☐ Occasionally present (once to several times per day lasting up to an hour)
☐ Rarely present (pain occurs every few days or weeks)

How would you describe your pain: (Check all that apply)
☐ Sharp, stabbing ☐ Crampy ☐ Heavy feeling in the pelvis ☐ Dull, aching pain
☐ Pulling, tugging pain ☐ Throbbing pain ☐ Burning pain ☐ Falling out sensation
☐ Other:

Does your pain ever wake you up from your sleep? ☐ Yes ☐ No

Does your pain ever radiate or spread to other regions of your body? ☐ Yes ☐ No

What makes your pain **WORSE**? (Check all that apply)
☐ Walking ☐ Climbing stairs ☐ Urination ☐ Heavy lifting ☐ Nothing makes it worse
☐ Full bladder ☐ Stress ☐ Housework ☐ The weather ☐ Getting in/out of the car
☐ Exercise ☐ Menstrual period ☐ Contact with clothing ☐ Intercourse/ Sexual contact
☐ Bowel movements ☐ Other:

What makes your pain **BETTER**? (Check all that apply)
☐ Lying down/rest ☐ Emptying bladder ☐ Ice or Heating pad ☐ Nothing makes it better
☐ Meditation ☐ Laxatives/enema ☐ It goes away by itself ☐ When I feel supported
☐ Hot bath ☐ Massage ☐ Bowel movements ☐ When my stress is low
☐ Exercise ☐ Ibuprofen or Tylenol ☐ Prescription pain medications
☐ Being distracted, when I am busy doing other things ☐ Other:

Last revised 6.19.2019
 All information, contents and material on this form is for informational purposes only and is not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare professional.

info@pelvicpain.org www.pelvicpain.org

www.ics.org/standards
www.ics.org/institute

- Definition – noncyclic CPP > 3 months
- Pain Characteristics – location, perception, modality
- Site specific versus central sensitization
- Identify inciting event – surgery, trauma, hormonal manipulation, major change in physical activity
- Comorbid conditions (e.g. autoimmune disease, XRT)
- Identify each pain generator and treat concurrently
- Domains of CPP – which organ systems are involved
 - Lower Urinary Tract Pain
 - Female Genital Pain
 - Male Genital Pain
 - Gastrointestinal Pain
 - Musculoskeletal Pain
 - Neuropathic Pain
 - Overlays:
 - Psychological
 - Sexual Aspects
 - Comorbidities

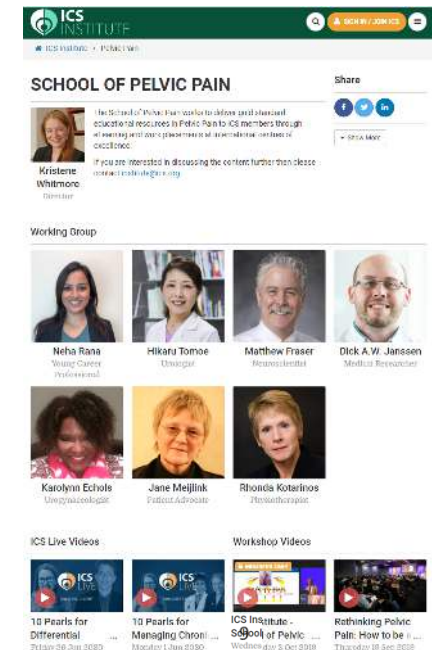
AND

Neurol. Urodynam., 2016 36: 984–1008.

Neurourology and Urodynamics

A Standard for Terminology in Chronic Pelvic Pain Syndromes: A Report From the Chronic Pelvic Pain Working Group of the International Continence Society

Regula Deggweiler,¹ Kristene E. Whitmore,^{2*} Jane M. Meijlink,³ Marcus J. Drake,⁴ Helena Frawley,⁵ Jørgen Nordling,⁶ Philip Hanno,⁷ Matthew O. Fraser,⁸ Yukio Homma,⁹ Gustavo Garrido,¹⁰ Mario J. Gomes,¹¹ Sohier Elneil,¹² Joop P. van de Merwe,¹³ Alex T.L. Lin,¹⁴ and Hikaru Tomoe¹⁵



Received: 16 February 2021

Accepted: 17 February 2021

DOI: 10.1002/nau.24658

SOUNDING BOARD



An International Continence Society (ICS) report on the terminology for pelvic floor muscle assessment

Helena Frawley¹ | **Beth Shelly^{2,3}** | **Melanie Morin⁴** |
Stéphanie Bernard⁵ | **Kari Bø^{6,7}** | **Giuseppe Alessandro Digesu⁸** |
Tamara Dickinson⁹ | **Sanchia Goonewardene¹⁰** | **Doreen McClurg¹¹** |
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Marijke Slieker-ten Hove^{15,16} | **Satoru Takahashi¹⁷** | **Jenniffer Voelkl Guevara¹⁸**

<https://www.ics.org/standards>

New Standardization Document

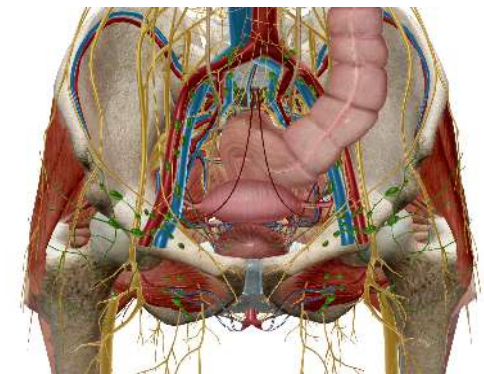
Treatment of Pelvic Pain depends on the:

Causes of Pain in Pelvis and Reasons for Pelvic Pain

LOCATION of PELVIC PAIN SYMPTOMS	POSSIBLE EXPLANATIONS of CHRONIC PELVIC PAIN SYNDROME
Vulvar pain Vulva and pelvic burning, burning in pelvic area	Infection Exposures (irritants) Vulvar atrophy (low estrogen) Low testosterone (can be caused by external hormones) Dermatologic conditions (e.g., lichen sclerosis) Neuropathy
Introital pain Entrance to vagina	Low testosterone Friction from sexual activity or clothing
Urethral pain Pain urinating	Vulvovaginal atrophy Urethral caruncle Friction Tight external sphincter muscle or stricture (turbulence) Skene's gland Stone at ureterovesical junction or urethra diverticulum Tumor Infection (<u>ureaplasma</u> /mycoplasma) or sexually transmitted infection Recurrent urinary tract infections
Pelvic floor muscles Heavy feeling in pelvic area, pelvis ache, pelvic pain from sitting, pelvic headache	Dysfunctional voiding Overactivity of muscles from pelvic strain, pelvic exercises or the <u>kegel</u> exercise
Gynecological pain Causes of pelvic pain in women, pain in pelvis female, symptoms of pelvic infection, sore pelvic area, pelvic discomfort, sore pelvis	Endometriosis symptoms (cramps in pelvis, pain in pelvis before period, pain in pelvis after period, extreme pelvic pain) Endometritis Adhesions in pelvis Uterine fibroids Ovarian venous abnormality Ovarian cysts, torsion, or other growths Ectopic pregnancy Sexually transmitted infection, inflammation in pelvis
Male organ pain	Prostatitis symptoms or epididymitis Testis mass, torsion, or nerve pain

Prostate pain, testis pain, groin pain, scrotum pain, pelvis pain men, pain in pelvis male	Ejaculatory duct or vas deferens obstruction <u>Psychogenic</u> Disease Sexually transmitted infection (STI, STD) Pelvic floor muscles, especially when prostatitis treatment has not been successful
Bladder pain	Interstitial cystitis Dietary triggers Bladder outlet obstruction
Gastrointestinal Pain Painful bowel movement, stomach cramps, blood in stool, cramps, bloating	Pelvic floor muscles: <u>levator</u> ani syndrome Proctalgia fugax / chronic proctalgia Unspecified functional anorectal pain Constipation –right pelvic pain, lower left side pelvic pain Anal Fissure Hemorrhoids Pruritis ani Anal cancer Paget's disease Warts Pelvic tumor Diverticulitis Appendicitis Adhesions in pelvis Hernia – pelvic pain sneezing Inflammatory bowel disease Irritable bowel syndrome – gas pain in pelvis
Vascular pain in lower pelvis Pelvis pain worse with standing	Pelvic venous disorder, pelvic venous congestion syndrome
Bone pain, Joint Pain Pelvic girdle pain, fractured pelvis symptoms, pelvic bone pain, pubic symphysis pain, pain in hips, pain in the pubic area, pelvic pain running	Back, knee, foot, or hip problem Injury to nerves, bones, ligaments, or tendons Inflammation of bone (osteitis or osteomyelitis) Muscle deficit (myopathy)
Nerve pain Burning pain in pelvis, burning sensation in pelvic area, pain that radiates down one leg, sharp pains in pelvic area	Upper motor neuron syndrome (upper spine/brain nerves) Spinal stenosis Herniated disc Multiple sclerosis Stroke Cerebral palsy

	Lower motor neuron syndromes (lower spinal cord) Cauda equina syndrome Tethered cord syndrome <u>Tarlov</u> Cyst Sacral plexus Peripheral nerve problem Pudendal neuropathy, pudendal neuralgia, or other nerve entrapment Peripheral neuropathy or neuroinflammation
Psychological	Loss of health Depression Anxiety History of sexual abuse/assault, PTSD Poor emotional coping/communication Personality disorders Couple distress
All-over pain Pain all over the body, pain everywhere, constant pain	Fibromyalgia Small fiber polyneuropathy Diabetic neuropathy Central sensitization Neuroinflammatory disease (e.g. Lyme disease) Rheumatologic disease Vasculitis



Differential Diagnosis of Pelvic Pain

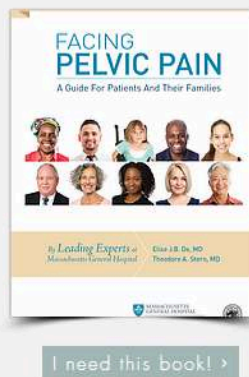
www.facingpelvicpain.org

Free Multidisciplinary One-Stop Resource Providers and Patients www.facingpelvicpain.org



Finding a specialist experienced specifically in pelvic pain can be challenging. But, don't give up! Here are some databases that will help you find the right medical care provider in your area (click the links below):

- [American Urogynecological Society \(AUGS\)](#)
- [American College of Ob-Gyn](#)
- [American Physical Therapy Association](#)
- [Herman Wallace Institute](#)
- [Global Pelvic Health Alliance](#)
- [Endometriosis Association](#)
- [International Foundation for Functional Gastrointestinal Disorders](#)
- [Interstitial Cystitis Network](#)
- [Interstitial Cystitis Association](#)
- [International Pelvic Pain Society](#)
- [Vulvodynia Association](#)
- [Vulvar Pain Foundation](#)
- [Pudendal Neuralgia Association](#)
- [Neuropathy Commons](#)



Tell Me More!

Other Websites Helpful in Pelvic Pain and Pelvic Floor Conditions:

- [World Federation for Incontinence and Pelvic Problems](#)
- [Urology Care Foundation](#)
- [Harvard Medical School Patient Education Center](#)
- [Continence Product Advisor](#)



Video - Nerve Blocks for Pelvic Pain

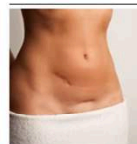
← Pain Specialists Alexandra Adler MD and Antje Barneveld MD, Explain the Roles of Diagnostic and Therapeutic Injections for Pelvic Pain
10 Minute [Video](#)

Images: iStock and <http://www.elsevier.com>



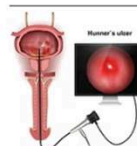
Video - Pelvic Floor Muscle PT in Men Explained

← Dr. Beth Shelly Explains What Happens in Pelvic PT for Men
6 Minute [Video](#)
Read the [transcript](#)



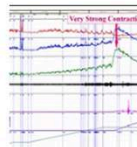
Video - Pelvic Floor Muscle PT in Women Explained

← Dr. Beth Shelly Explains What Happens in Pelvic PT for Women
6 Minute [Video](#)
Read the [transcript](#)



Video - Cystoscopy Explained

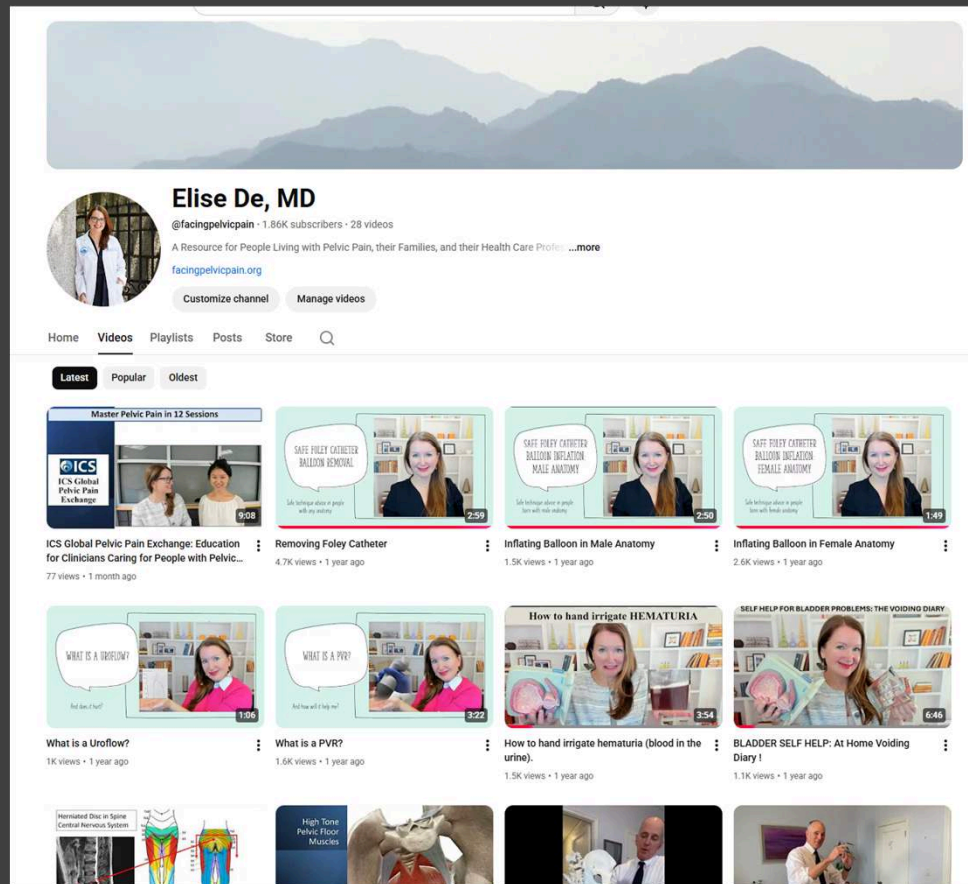
← Video Explaining "What is Cystoscopy?" (Office Camera Test of Bladder)
6 Minute [Video](#)
Read the [transcript](#)



Video - Urodynamic Testing Explained

← Video Explaining "What are Urodynamics?" (Pressure Test of Bladder)
6 Minute [Video](#)
Read the [transcript](#)

<http://www.youtube.com/@facingpelvicpain>



The image shows the YouTube channel page for Elise De, MD. The header features a landscape banner and the channel name 'Elise De, MD' with the handle '@facingpelvicpain' and 1.86K subscribers. Below the header, there are tabs for Home, Videos, Playlists, Posts, and Store. The 'Videos' tab is selected, showing a grid of video thumbnails. The videos include 'Master Pelvic Pain in 12 Sessions', 'Removing Foley Catheter', 'Inflating Balloon in Male Anatomy', 'Inflating Balloon in Female Anatomy', 'What is a Uroflow?', 'What is a PVR?', 'How to hand irrigate HEMATURIA', and 'BLADDER SELF HELP: At Home Voiding Diary!'. Each video thumbnail includes a title, a brief description, and view counts.

Elise De, MD
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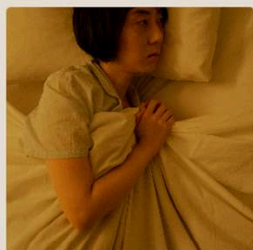


Vulvar / Vaginal Treatments	Tried?	Relief?	Still Using?
Avoidance of Irritants (select toilet paper, soap)			

www.facingpelvicpain.org

The Treatment Map

☐ Steroid (clobetasol, hydrocortisone)			
☐ Diazepam (Valium®) vaginal Suppositories			
☐ Baclofen (Lioresel®)			
☐ Lidocaine			
☐ Gabapentin (Neurontin®)			
☐ Amitriptyline (Elavil®)			
☐ Tacrolimus (Prograf®)			
☐ Naltrexone - low dose (Vivitrol®)			
☐ Douches			
☐ Other Inserts			
☐ Wipes			
Hormonal Medications	Tried?	Relief?	Still Using?
Vaginal estrogen cream, tablet or ring			
Estrogen / progesterone pills or patches			
Hormone-secreting intrauterine device (Mirena®, Liletta®)			



SEXUAL DESIRE

Selective Serotonin Reuptake Inhibitors & Sexual Dysfunction

EMILY BARKER, MD MPH, MD, MPH
EMILYANN KEY, MPH, MPH

Selective serotonin reuptake inhibitors (SSRIs) are medications effective in treating a variety of...

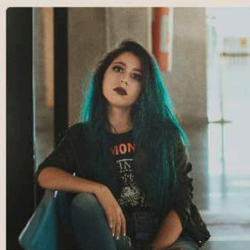


PAINFUL SEX

Sexual Dysfunction in Systemic Lupus Erythematosus

JAMES A. SIMON, MD, CCD, MSCP

SLE is an autoimmune disorder that not only affects joints, skin, and organs but can impact intimacy....



PAINFUL SEX

Vulvar Aphthae

JENNA J. LULLO, MD

Vulvar aphthae are painful ulcers on the skin of the vulva. They can significantly impact sexuality and...

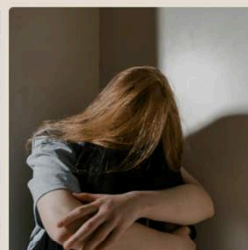


PAINFUL SEX

Polycystic Ovary Syndrome (PCOS) & Your Sexual Health

JAMES A. SIMON, MD, CCD, MSCP

Polycystic ovarian syndrome (PCOS) is a common hormonal disorder affecting women of reproductive...



PAINFUL SEX

Hidradenitis Suppurativa

JENNA J. LULLO, MD

Hidradenitis suppurativa is a chronic, and often debilitating, skin condition in which painful, inflamed lesions...



TREATMENT

Vaginal Estrogen For The Prevention Of Recurrent Urinary Tract Infections

CARLOS ZAPATA-CABALLERO, MD

Recurrent urinary tract infections (rUTIs) are a significant concern for many women, particularly after...



SEXUAL DESIRE

How Menopause Affects Sexuality

GRETCHEN FREY, MD, FACOG

For anyone with ovaries, the stage of life known as menopause will come along sometime between the late...



PAINFUL SEX

Clitoral Adhesions

ANDREA MARTIN, DNP, CRNP, WHNP

An estimated 23-33% of vulvar owners have clitoral adhesions.



PAINFUL SEX

Vaginismus

COREY R. BABB, DO, NCMP, IF, FACOG



SEXUAL DESIRE

Hypoactive Sexual Desire Disorder

DIANA BITNER, MD

Hypoactive Sexual Desire Disorder (HSDD) is a state of decreased sexual desire that has occurred as a chang...

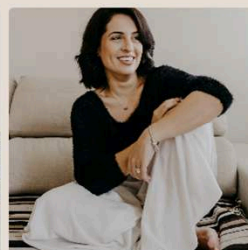


PAINFUL SEX

Pelvic Floor Muscle Dysfunction

HEATHER QUAIL, DNP, WHNP-BC, CSC, SANE, IF

Pelvic floor muscles are thin layers of muscle that form a basket to support pelvic organs and their dysfunction...



Sex After Cancer

LAILA S. AGRAWAL, MD, IF

Sexual health concerns are very common after a cancer diagnosis - and often treatable.



Let's talk about sleep...(and sex)

JEWEL M. KLING, MD, MPH, NCMP, FACP

It's easy to forget how important sleep is, but time and again, studies show sleep is critical to many aspec...



PAINFUL SEX

Hormonally Mediated Vestibulodynia

RACHEL RUBIN, MD, IF, NCMP

Vestibulodynia is a general term used to describe pain in the vestibule. The vestibule is the tissu...

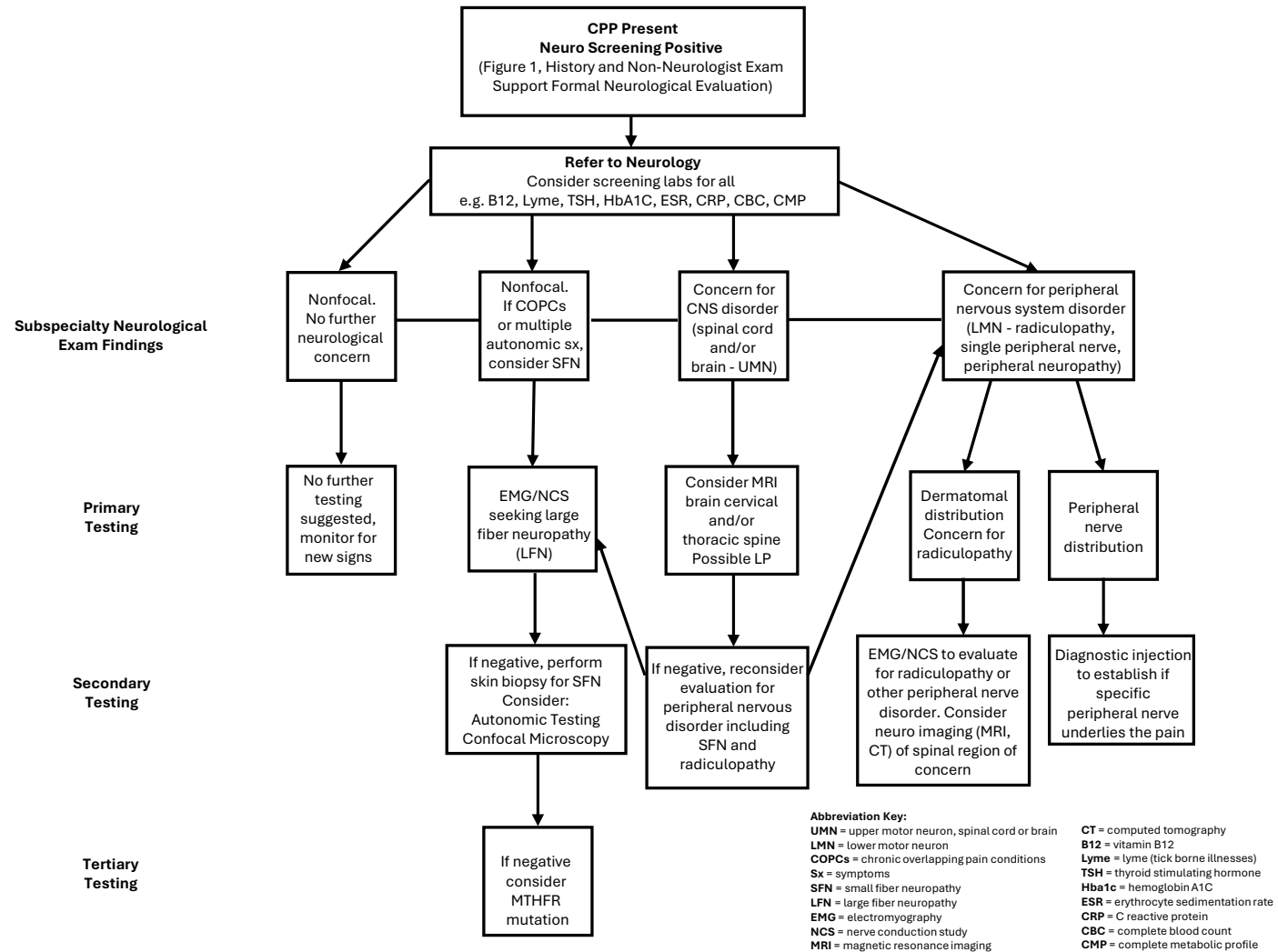
Figure 1: Screening criteria used to trigger referral of patients with CPP for neurological evaluation.

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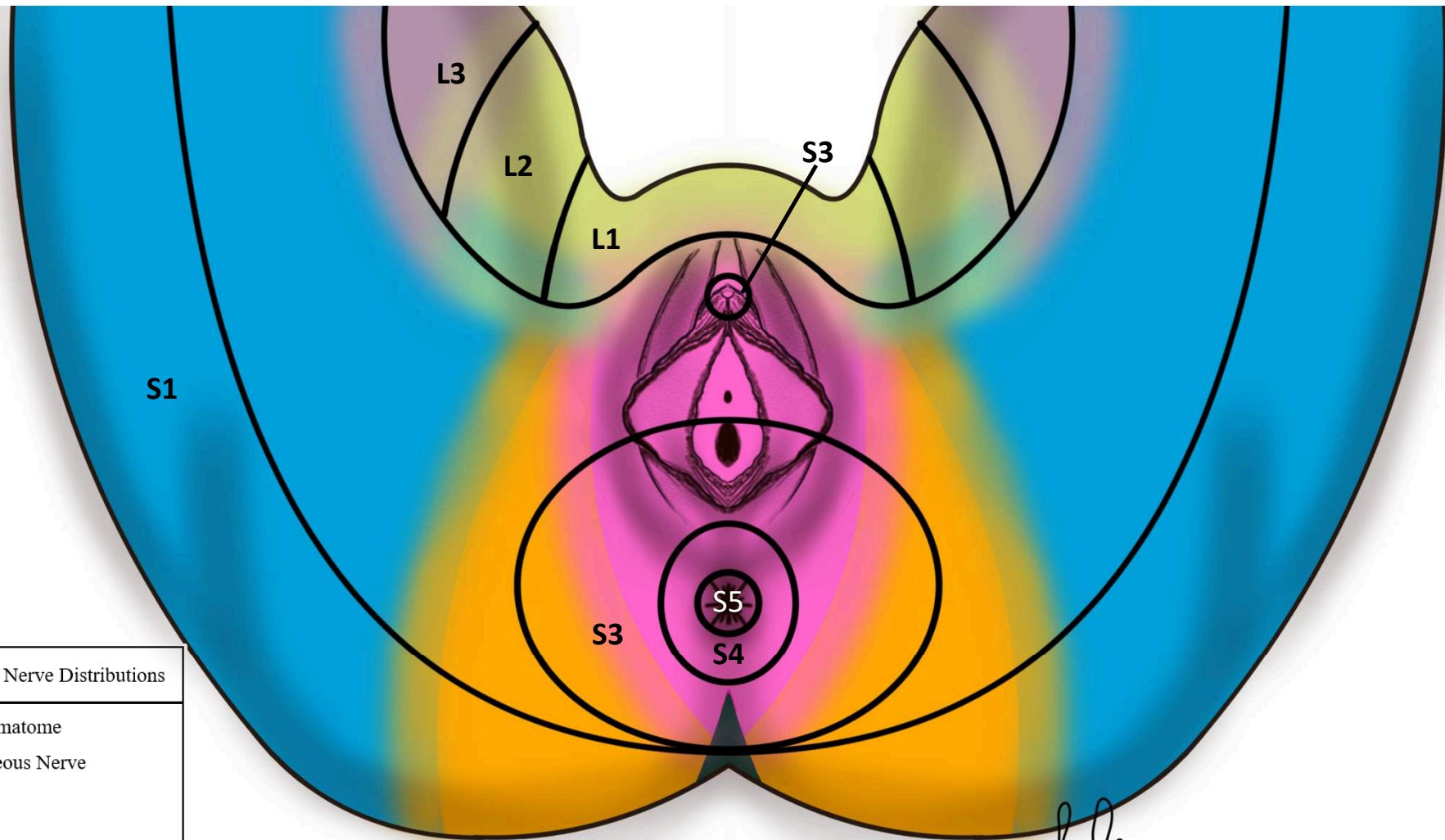
- Pain, sensory disturbance, or weakness referable to:
 - a specific nerve root
 - peripheral nerve distribution
 - a pattern consistent with a central nervous system etiology
- Combination bladder, bowel, sexual, or pain symptoms referable to lumbosacral spine pathology
- Balance or gait alteration
- Abnormal reflexes, sensation, or weakness on cursory neurological examination
- Upper motor neuron findings or unexplained hypotonia on urodynamics
- Evidence of autonomic dysfunction (including interstitial cystitis, irritable bowel syndrome, erectile dysfunction, persistent genital arousal disorder, arrhythmia, postural orthostatic tachycardia syndrome), and/or chronic overlapping pain syndromes (COPCs, including pelvic pain, migraine, endometriosis, temporomandibular joint pain, sensitive feet, fibromyalgia)
- Pelvic pain refractory to musculoskeletal and organ-based interventions

Neurologist's Diagnostic Algorithm in people with CPP referred by pelvic health for a positive Neurological Screening.

This is a basic guide, not to replace subspecialty neurological evaluation. Copyright retained by the authors.



Peripheral nerve distributions (color) and spinal nerve root dermatomes (black lines) can indicate which nerves are causing pain.



Dermatomes and Peripheral Nerve Distributions

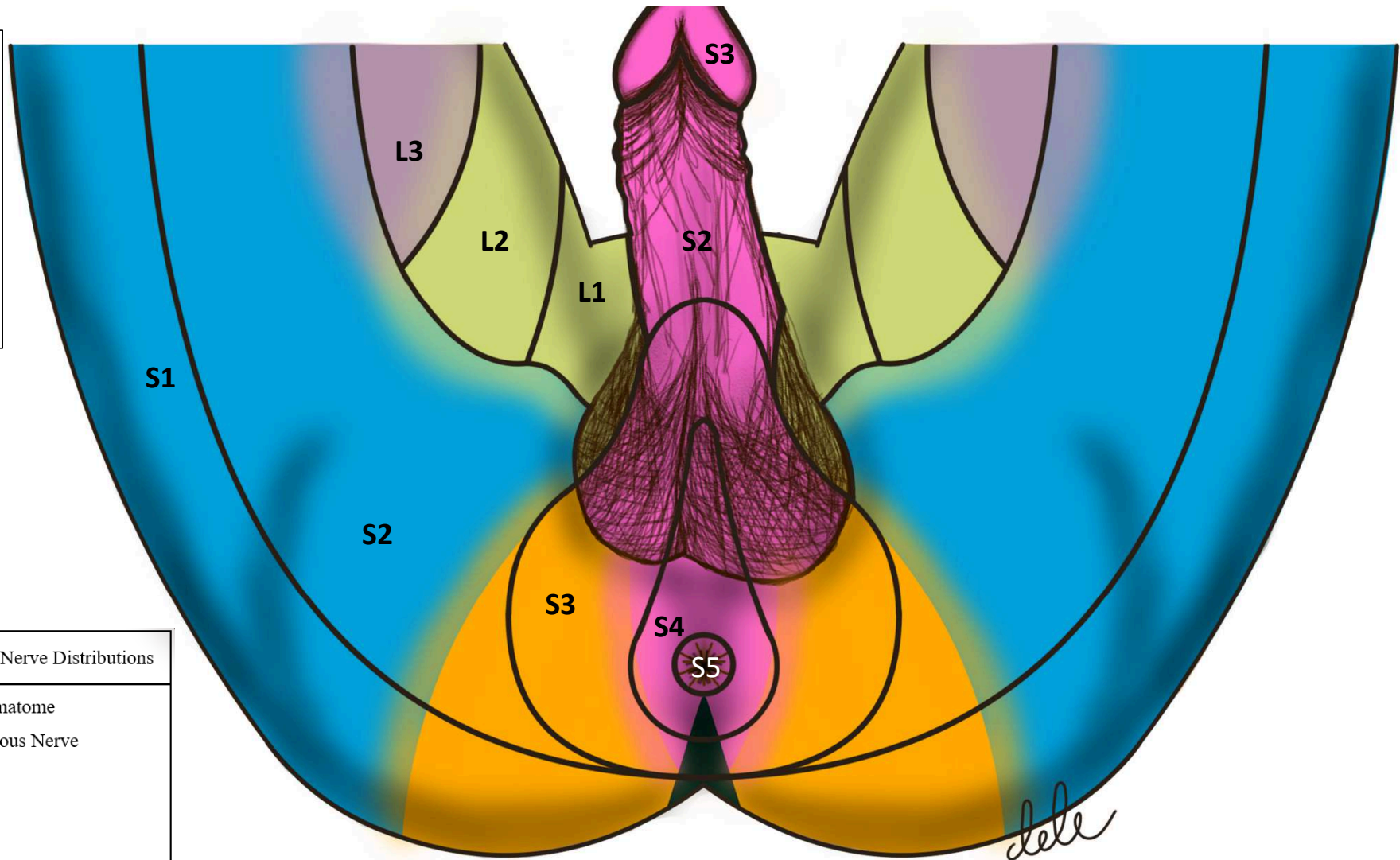
- Spinal Nerve Root Dermatome
- Posterior Femurocutaneous Nerve
- Inferior cluneal Nerve
- Pudendal Nerve
- Genitofemoral Nerve
- Obturator Nerve
- Coccygeal plexus

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Peripheral nerve distributions (color) and spinal nerve root dermatomes (black lines) can indicate which nerves are causing pain.



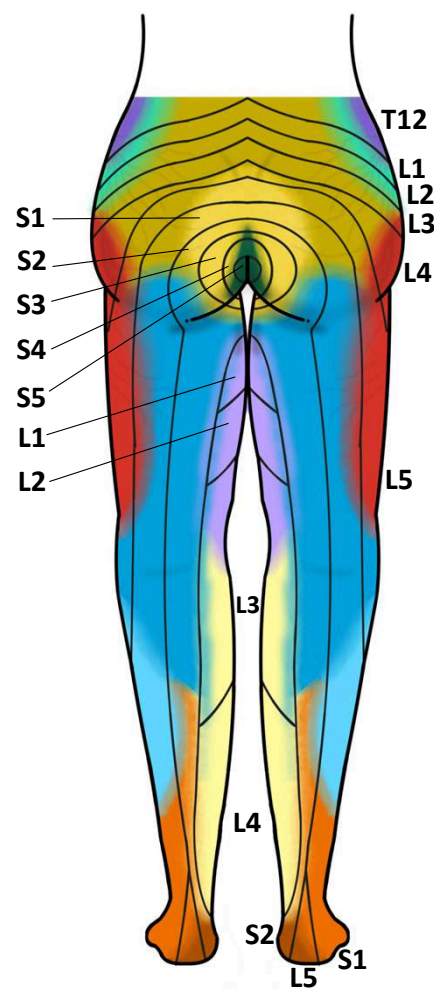
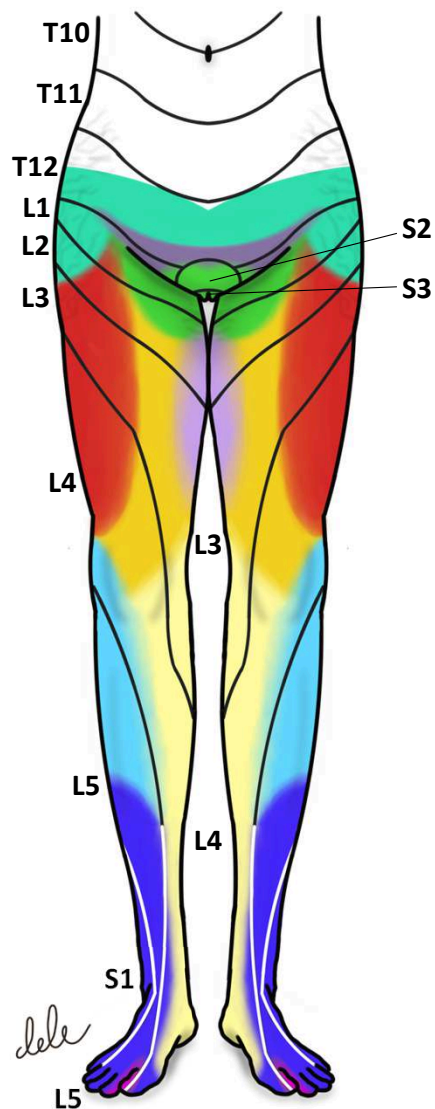
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Key of Spinal Nerve Root Dermatomes and Peripheral Nerve Distributions

— Spinal Nerve Root Dermatome

- Iliohypogastric Nerve
- Ilioinguinal Nerve
- Genitofemoral Nerve
- Lateral Femoral Cutaneous Nerve
- Femoral Nerve
- Obturator Nerve
- Posterior Femorocutaneous Nerves
- Femoral Nerve (Saphenous Branch)
- Common Fibular Nerve (superficial)
- Common Fibular Nerve (deep)
- Posterior Femorocutaneous Nerves
- Superior Cluneal Nerve
- Middle Cluneal Nerve
- Tibial Nerve (Sural)
- Tibial Nerve
- Coccygeal Plexus



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Trans-gluteal Pudendal
Implant Video
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Sacral Tarlov perineurial cysts: a systematic review of treatment options

Jan Alberto Paredes Mogica, MD,¹ Frank Feigenbaum, MD,² Julie G. Pilitsis, MD, PhD, MBA,³ Rudolph J. Schrot, MD, MAS,⁴ Anne Louise Oaklander, MD, PhD,⁵ and Elise J. B. De, MD⁶

INCLUDE WHEN CITING Published online December 15, 2023; DOI: 10.3171/2023.9.SPINE23559.

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J Neurosurg Spine December 15, 2023

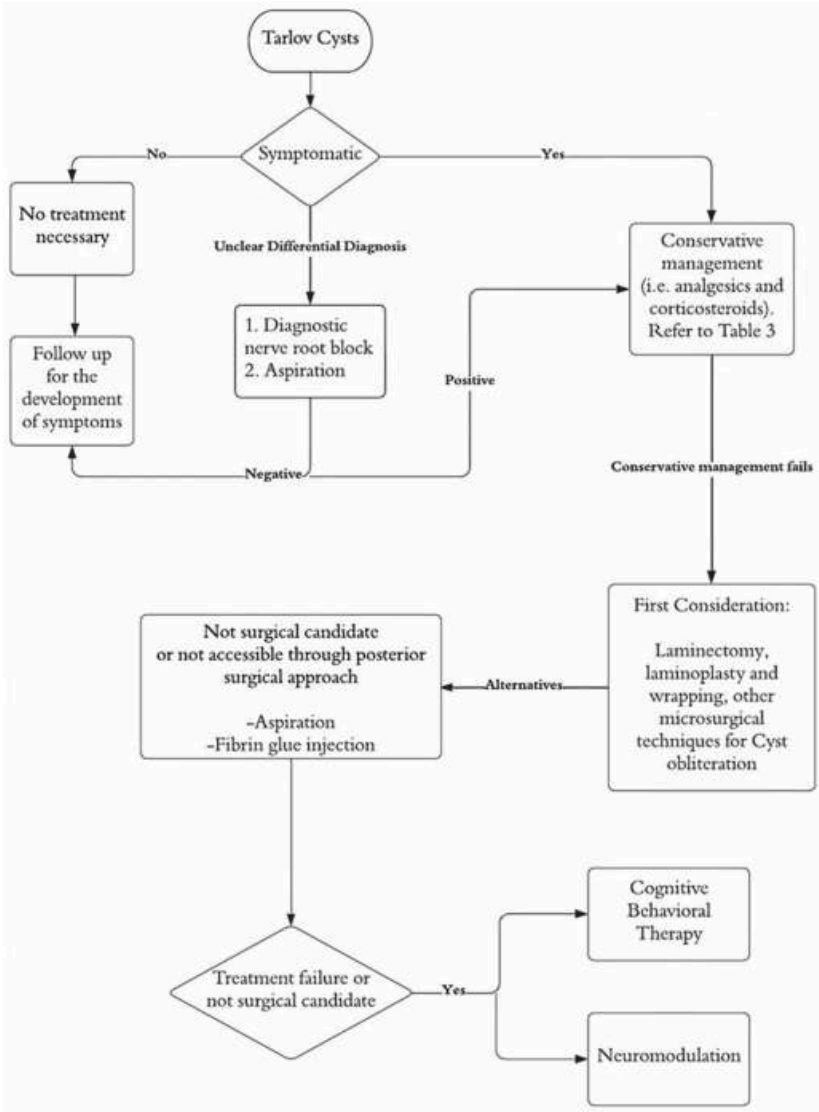


FIG. 4. Proposed algorithm for the management of TCs.

https://www.youtube.com/channel/UC-f3TIJ_cS_QGId9MVIB6sg
http://www.youtube.com/@AvantUrology



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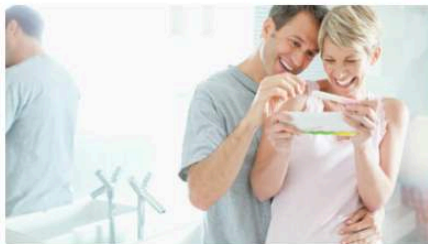
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Dr. Sijo Parekatil Named Among Top Physicians in

https://avanturology.com/managing-post-vasectomy-pain-syndrome/

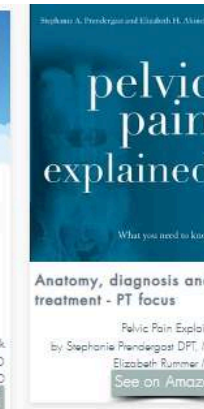
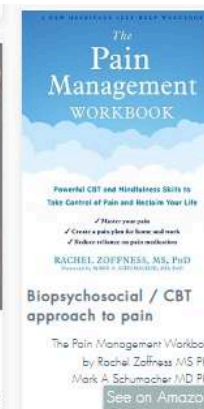
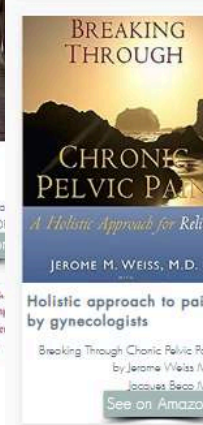
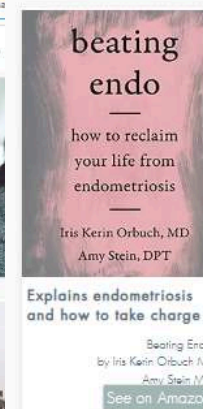
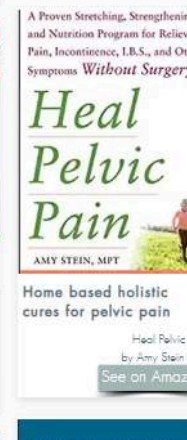
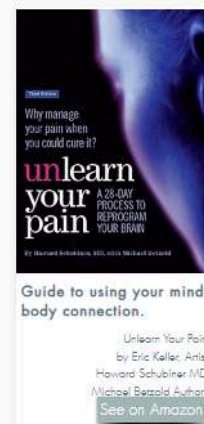
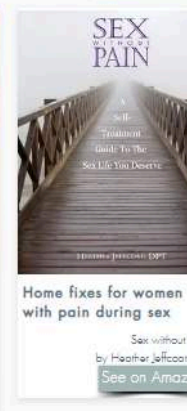
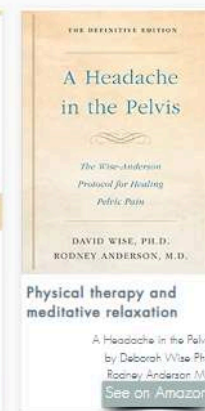
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Facing Pelvic Pain

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Excellent Books on Pelvic Pain in Any Gender
This hand-picked list of books is recommended by many of our authors to their patients. Use these resources to learn more ...and improve quality of life.



Websites

- American Urogynecological Society (AUGS): <https://www.voicesforpfd.org/>
- American College of Ob-Gyn: <https://www.acog.org/>
- American Physical Therapy Association: <https://www.apta.org/>
- Herman Wallace Institute: <https://pelvicrehab.com/>
- Beth Shelly DPT: <https://www.bethshelly.com/new-patients/pelvic-pain-and-spasms/>
- Global Pelvic Health Alliance: <https://pelvicguru.com/>
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 - <https://www.nhs.uk/conditions/fibroids/>
 - <https://www.nhs.uk/conditions/vulvodynia/>
 - <https://www.nhs.uk/conditions/pelvic-inflammatory-disease-pid/>
 - <https://www.nhs.uk/conditions/pelvic-pain/>
 - <https://www.nhs.uk/conditions/pudendal-neuralgia/>
- International Foundation for Functional Gastrointestinal Disorders: <https://iffgd.org/>
- Interstitial Cystitis Network: <https://www.ic-network.com/>
- Interstitial Cystitis Association: <https://www.ichelp.org/>
- International Pelvic Pain Society: <https://www.pelvicpain.org/>
 - <https://www.pelvicpain.org/public/resources/educational-resources/informational-handouts>
 - <https://app.v1.statusplus.net/membership/provider/index?society=ipps&t=public>
- Facing Pelvic Pain: Video and Written Resources on all Causes of Pelvic Pain:
 - <https://www.facingpelvicpain.org/pain-in-pelvis-patient-education>
- Toronto Academic Pain Medicine Institute:
 - <https://tapmipain.ca/patient/managing-my-pain/>
- World Federation for Incontinence and Pelvic Problems: <https://wfipp.org/>
- Vulvodynia Association: <https://www.nva.org/>
- Vulvar Pain Foundation: <https://www.thevpfoundation.org/>
- Pudendal Neuralgia Association: <https://www.pudendalassociation.org/>
- Pudendal HOPE: <http://www.pudendalhope.info/>
- Neuropathy Commons: <https://neuropathycommons.org/>