

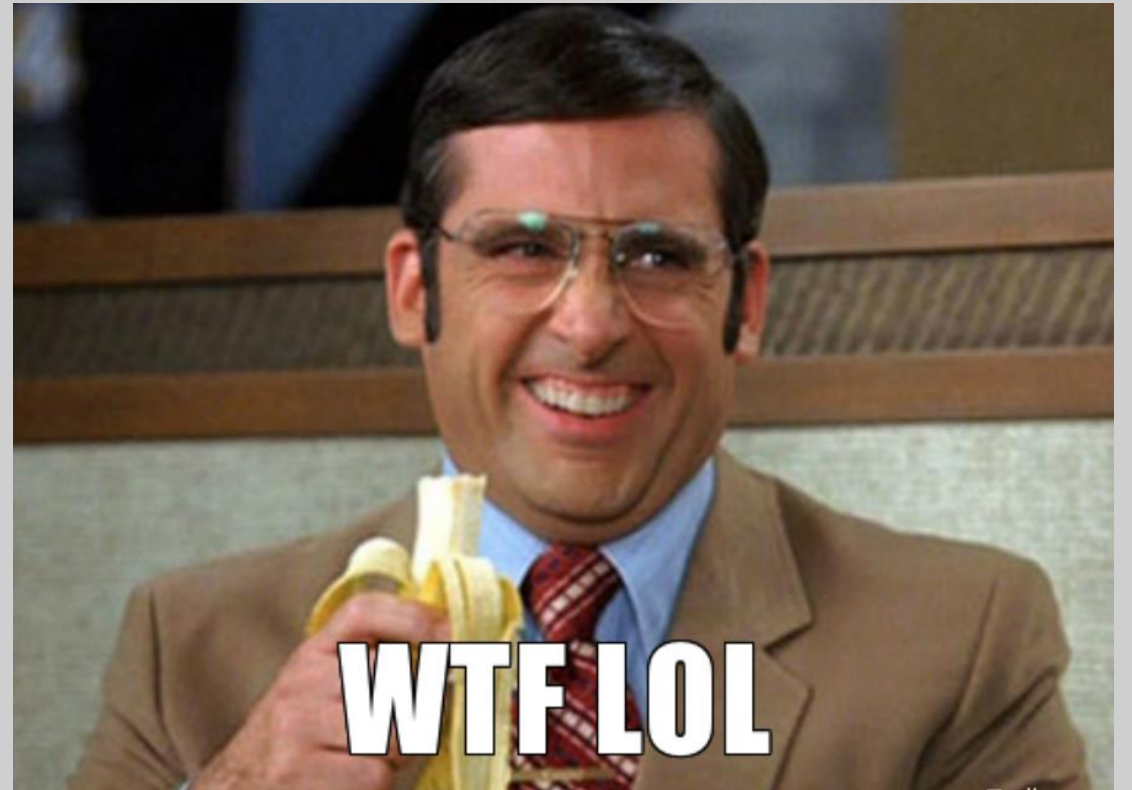
Pelvic Congestion Syndrome *Enter The Rabbit Hole*

Blake Parsons, DO



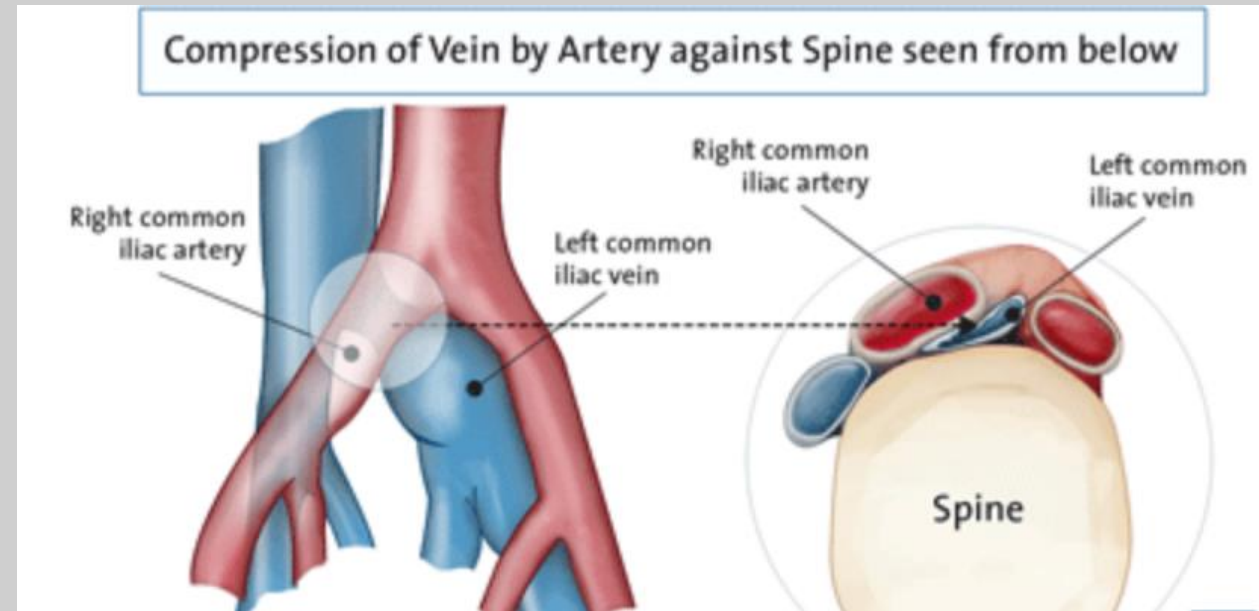
Pelvic Congestion Syndrome

- aka Pelvic Venous Insufficiency
- What is it??
- Is this made up???



May-Thurner Syndrome

- What the heck is May-Thurner??
- Iliac vein compression syndrome
- Left CIV compressed under Right CIA



Pelvic Congestion Syndrome?

Varicose Veins Within The Pelvis

- 1 in 6 reproductive age women
- 15-40% of women with CPP
- Morbidity: work, family, relationships
- Cost: > \$3 Billion/year in the US



Pelvic Congestion Syndrome

- Chronic pelvic pain (CPP) is a major cause of disability in women. The differential diagnosis is extensive and it has been estimated that up to 40% of CPP is secondary to pelvic venous insufficiency (PVI), also known as pelvic congestion syndrome (PCS).

Phillips D, Deipolyi AR, Hesketh RL, Midia M, Oklu R. Pelvic congestion syndrome: etiology of pain, diagnosis, and clinical management. J Vasc Interv Radiol 2014;25:725-33.

Pelvic Congestion Syndrome?

Definition (ACOG) Chronic Pelvic Pain (CPP)

- Noncyclic pelvic pain for >6 Months
- Pain within
 - Anatomic pelvis
 - Anterior abdominal wall at or below umbilicus
 - Lumbosacral back or buttocks

Pelvic Congestion Syndrome

Differential Diagnosis Chronic Pelvic Pain

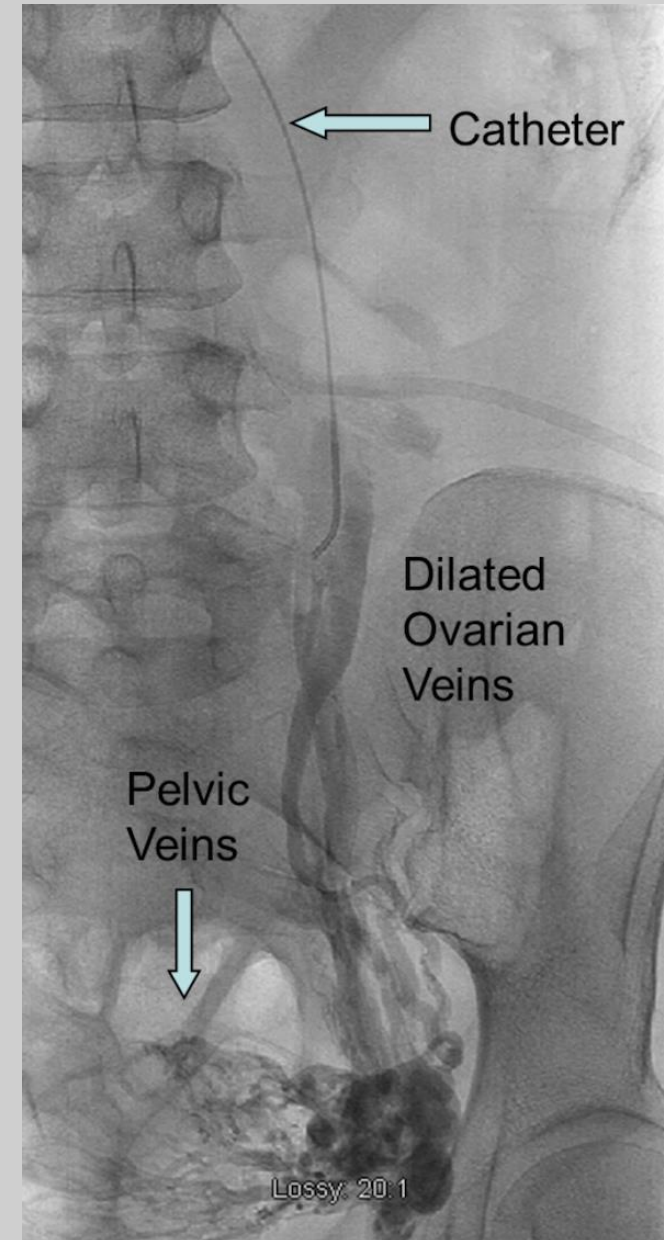
- Bowel Pathology
- Cancer
- Fibroids
- Endometriosis
- Fibromyalgia
- Ovarian cyst
- Pelvic inflammatory disorder
- Urologic pathology
- Uterine prolapse
- Neuropathic pathology

Pelvic Congestion Syndrome

- Ovarian or Pelvic Varicosities
 - Similar to venous insufficiency of the legs

Risks

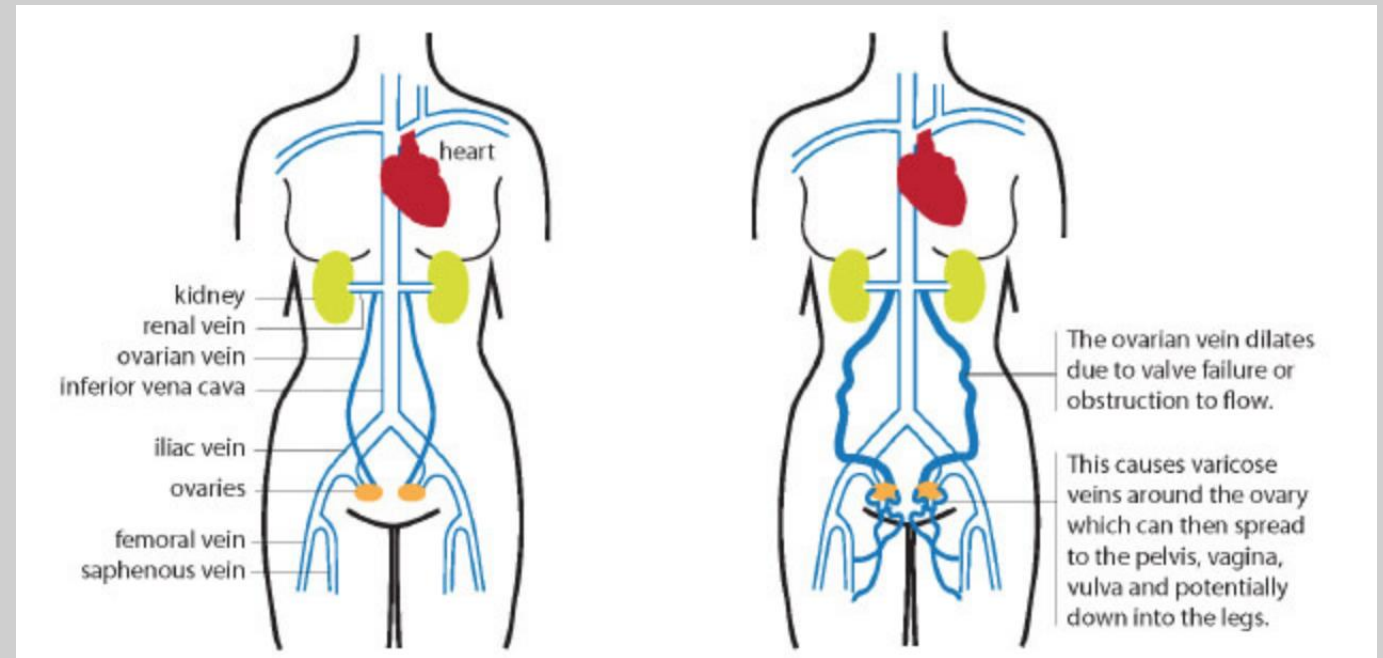
- Increase risk in multiparous women
- Weight gain
- Obstructing anatomic anomaly
 - May-Thurner
 - Nutcracker phenomenon
 - Compression of left renal vein by SMA



Pelvic Congestion Syndrome

- Symptoms

- Dull ache, sharp or throbbing
- Worse at the end of the day (after sitting or standing a long time)
- Relieved by lying down
- Pain during or after sex
- Low back pain
- Aches in the legs

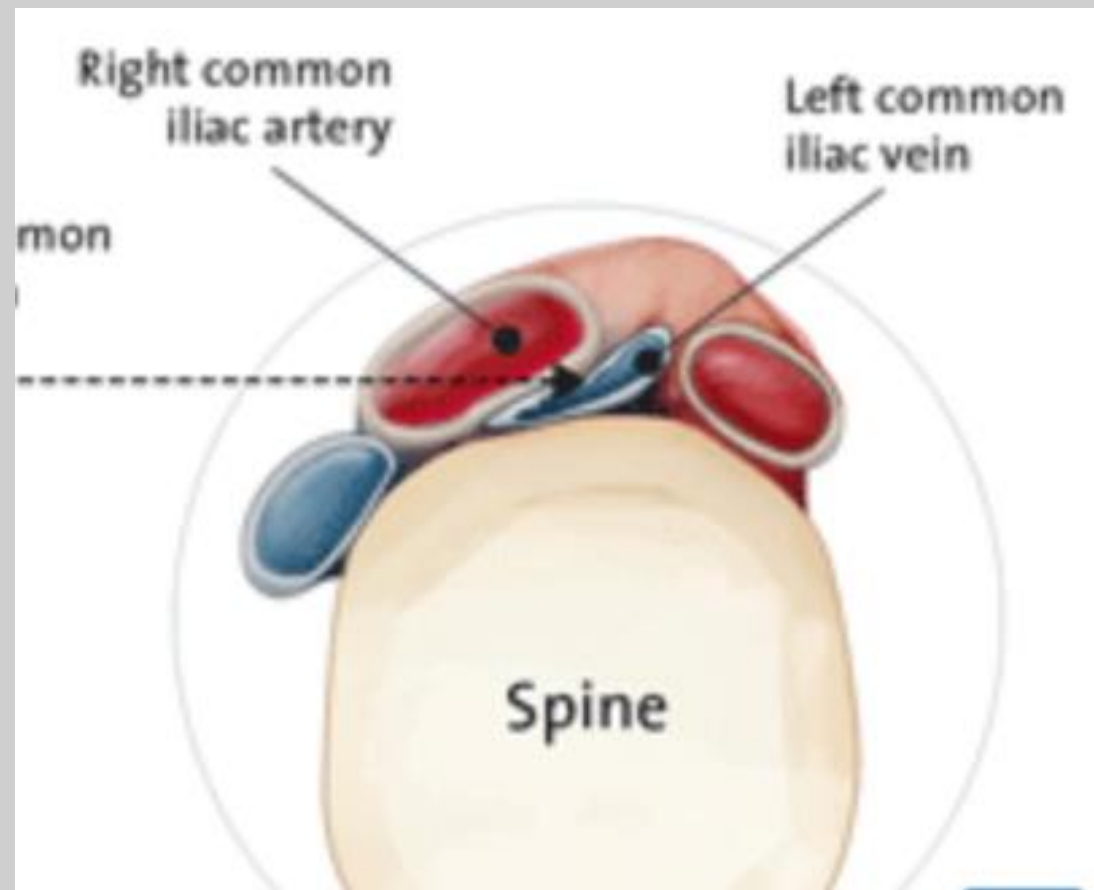
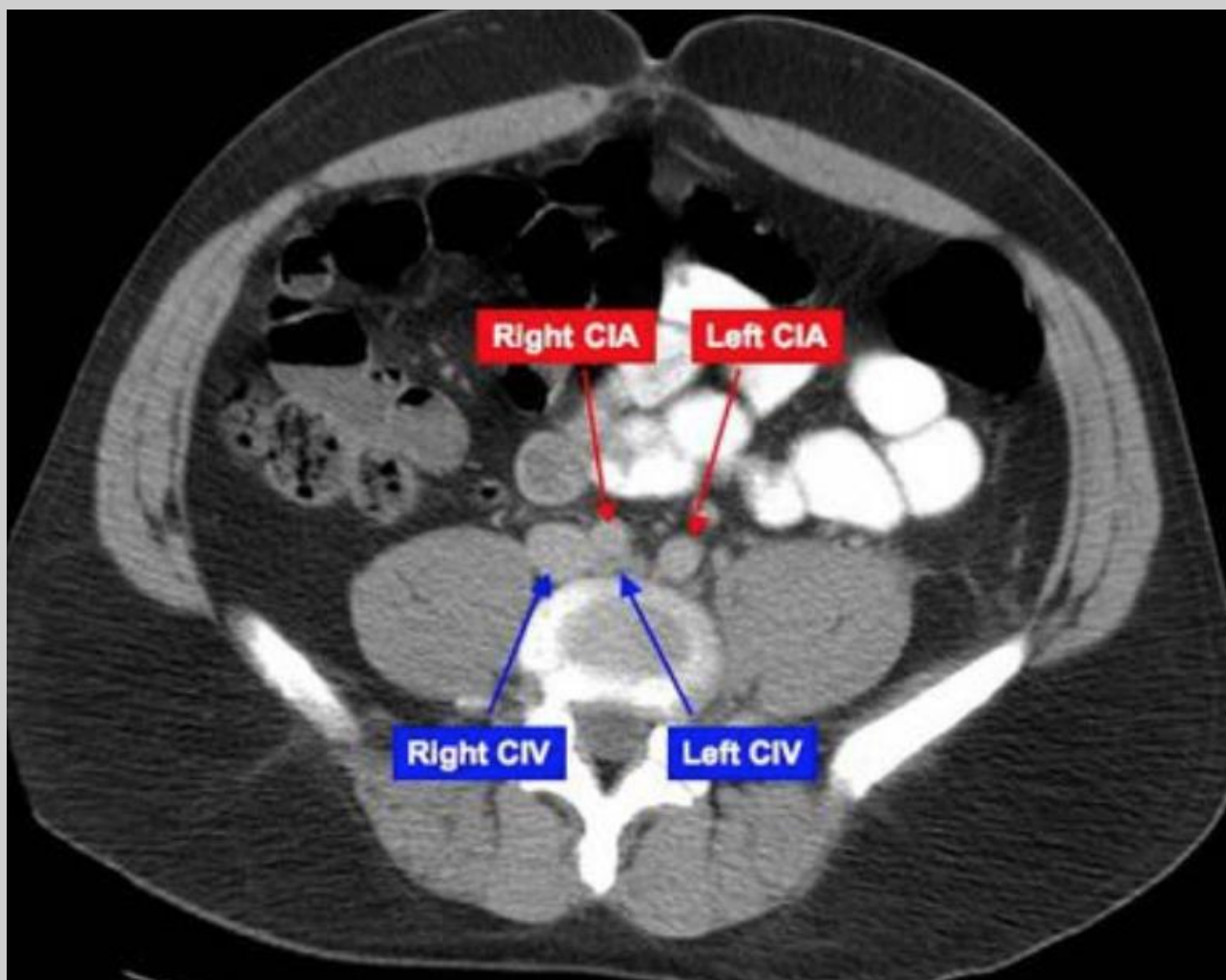


Pelvic Congestion Syndrome

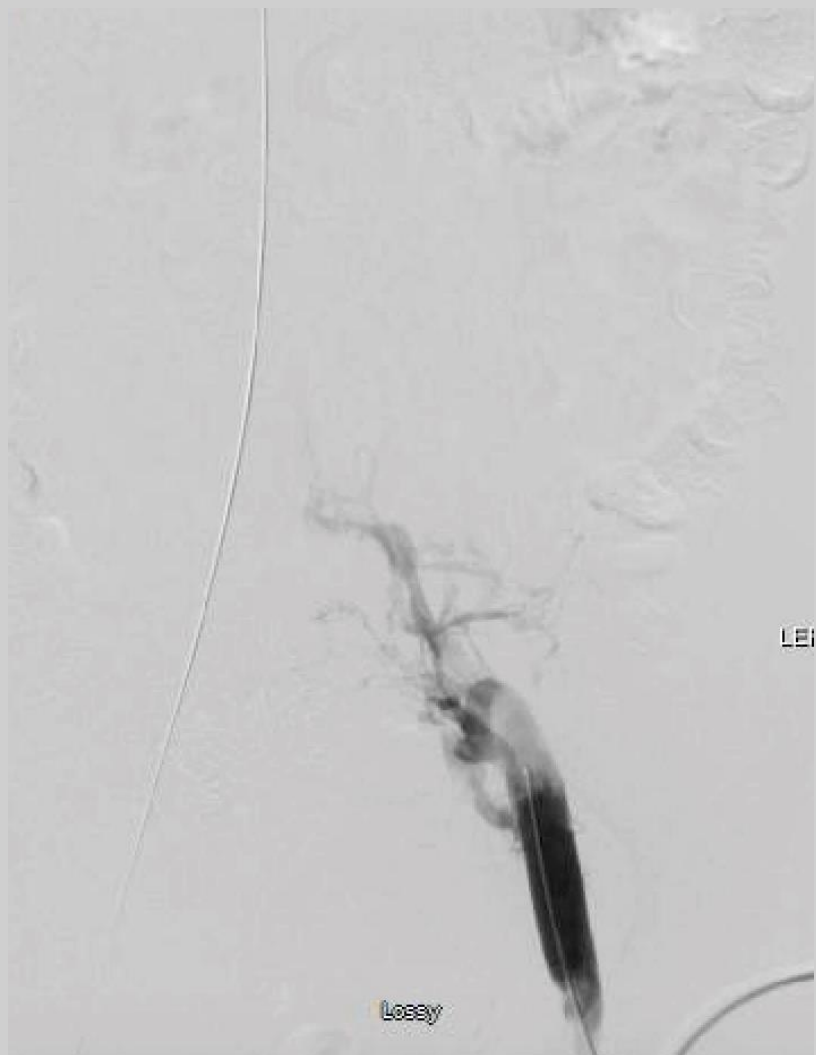
Work Up

- Gynecologic, Urologic, GI evaluation to rule out other associated causes of CPP
- Diagnosis of exclusion
- No great diagnostic criteria
- Transvaginal US
- CT Pelvic Venogram

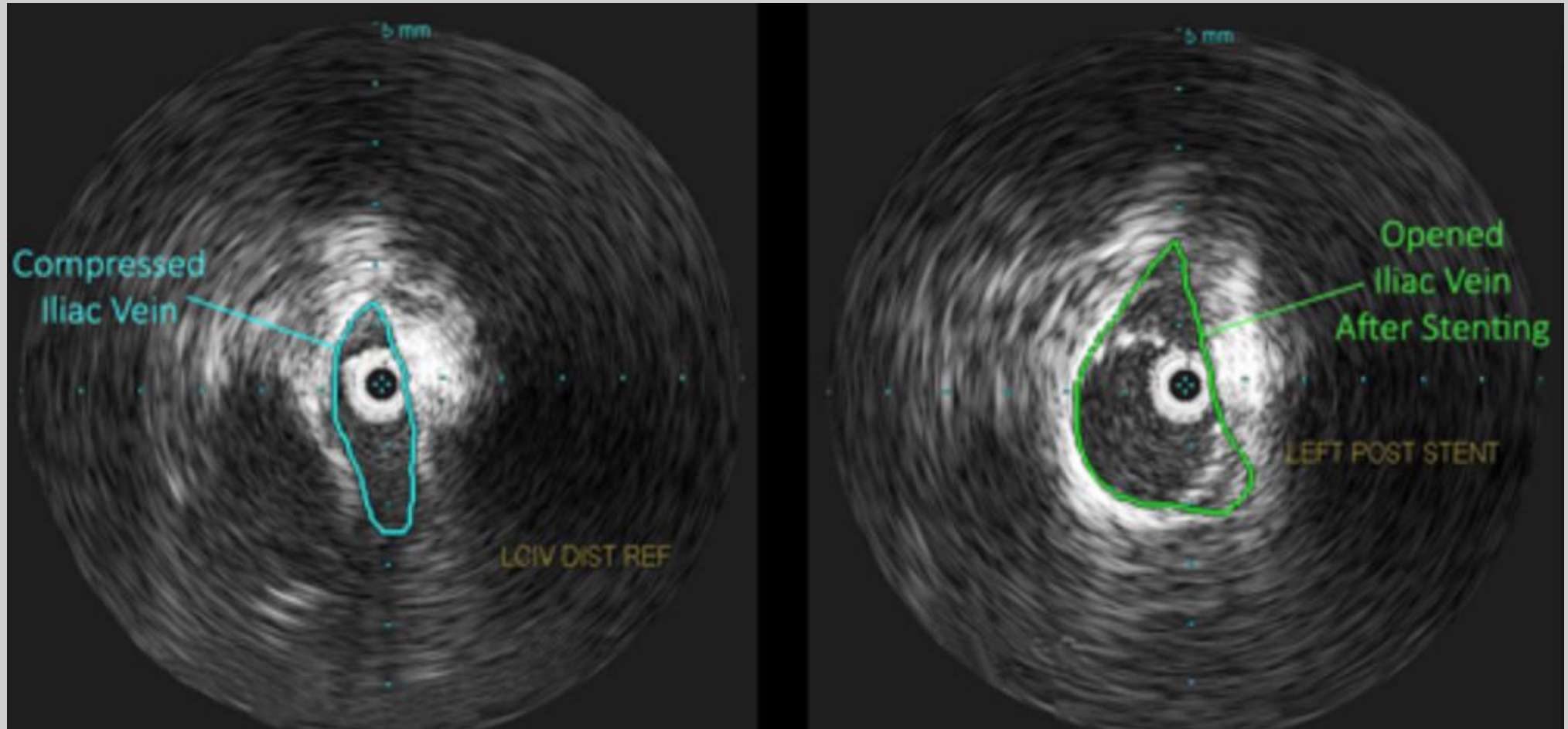
Evaluation for PCS



Pelvic Venogram



Intravascular Ultrasound



Pelvic Congestion Syndrome

Treatment Options

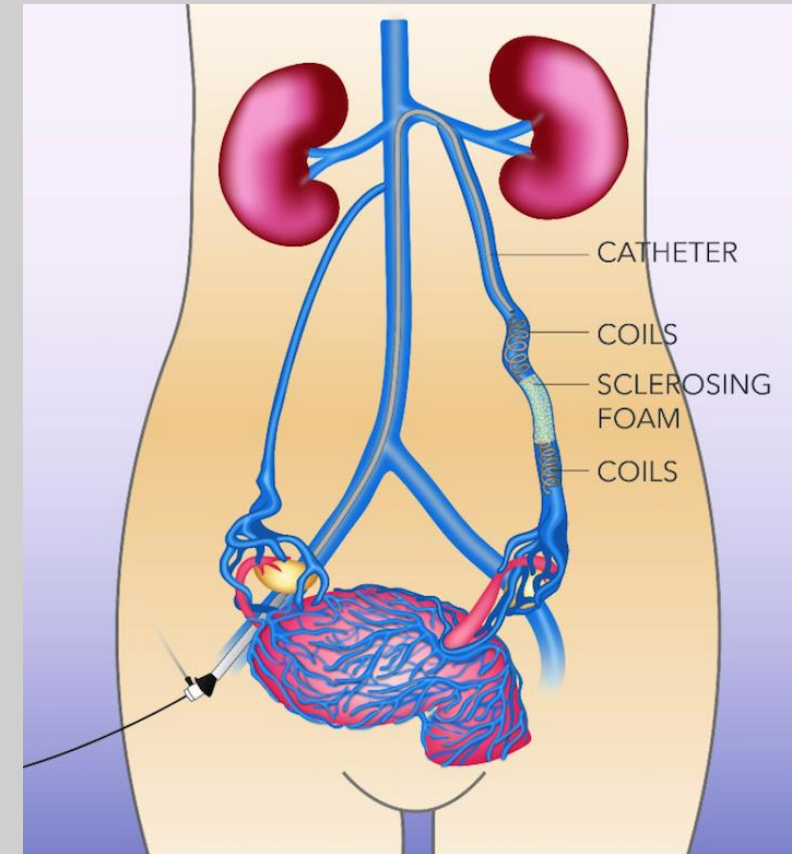
- Gonadal Vein Embolization
- Iliac Venous Stenting



Pelvic Congestion Syndrome

Gonadal Vein Embolization

- First reported in 1993
- Gonadal venogram to demonstrate venous insufficiency within the pelvis.
- Sclerotherapy and Coil embolization
- Left iliac venogram and intravascular US with possible stenting



Pelvic Congestion Syndrome

Success?

- 1,308 women
 - 21 prospective series
 - 1 poor quality randomized trial

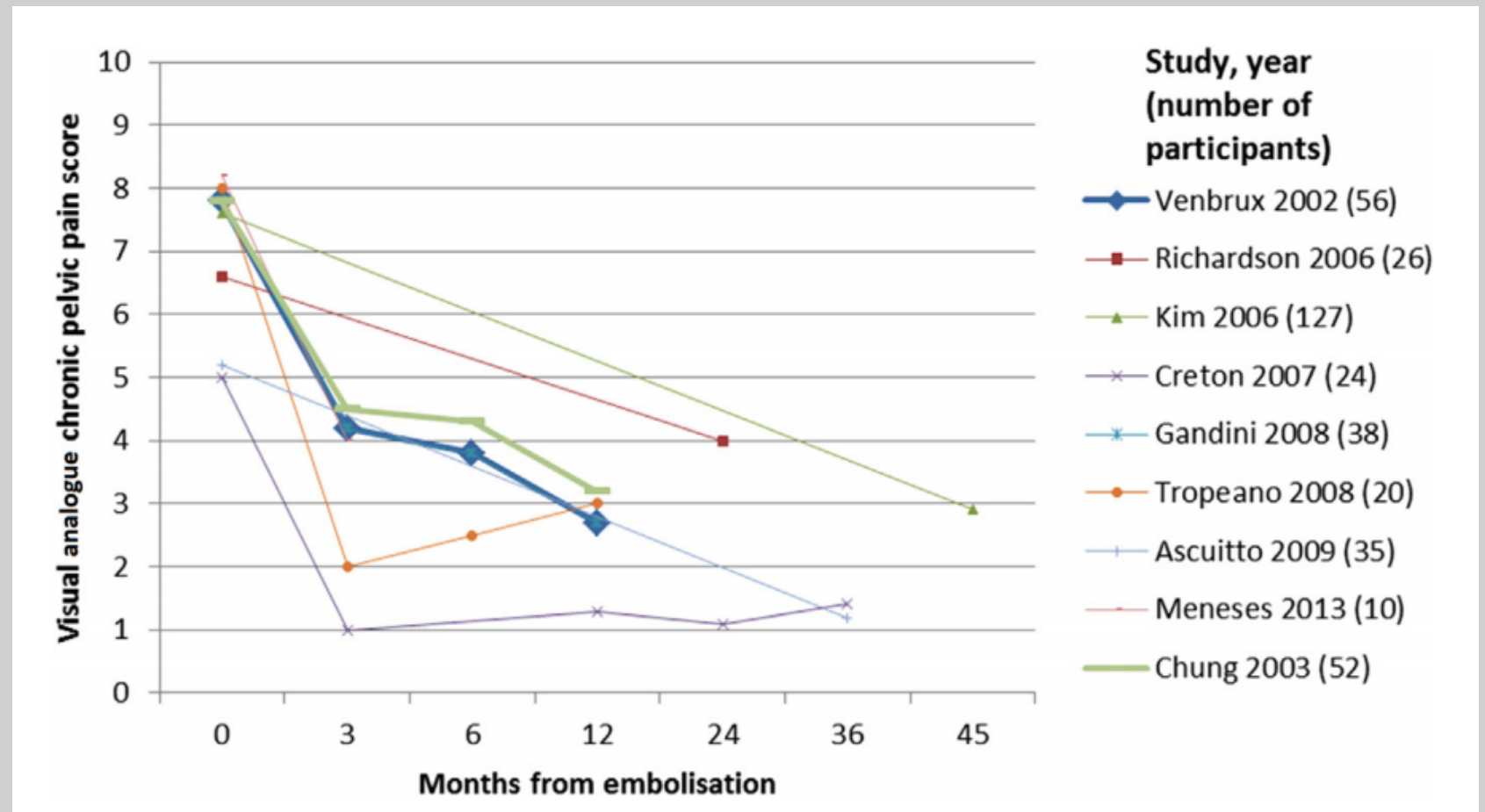


Effectiveness of Embolization or Sclerotherapy of Pelvic Veins for Reducing Chronic Pelvic Pain: A Systematic Review

Jane P. Daniels, PhD, Rita Champaneria, MPhil, Laila Shah, MSc, Janesh K. Gupta, FRCOG, Judy Birch, BSc, and Jonathan G. Moss, FRCS, FRCR

Pelvic Congestion Syndrome

- Early substantial relief
- Sustained



Pelvic Congestion Syndrome Treatment

Is embolization the best initial treatment option?

- Retrospective review of 227 women with diagnosis PCS
- 80% had >50% iliac vein stenosis by intravascular ultrasound
 - OVE 39
 - OVE with staged stenting 94
 - OVE with simultaneous stenting 33
 - Stenting alone 50
 - OVE with venoplasty 8
 - Venoplasty alone.

Iliac vein stenosis is an underdiagnosed cause of pelvic venous insufficiency



Ratnam K. N. Santoshi, MD,^a Sanjiv Lakhanpal, MD,^{a,b} Vinay Satwah, DO,^{a,b} Gaurav Lakhanpal, MD,^b Michael Malone, MD,^b and Peter J. Pappas, MD,^{a,b} *Greenbelt, Md*

Pelvic Congestion Syndrome

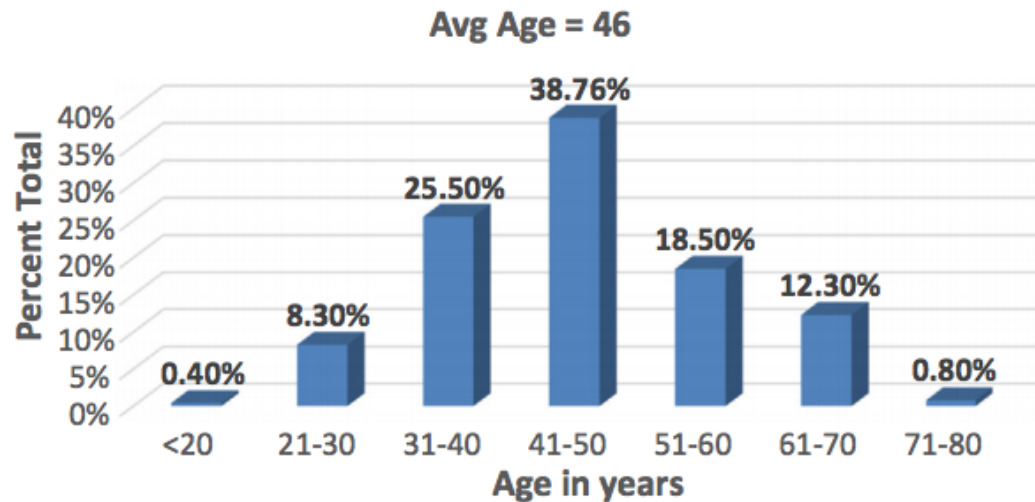


Fig 1. Age distribution of women treated for pelvic venous insufficiency (PVI).

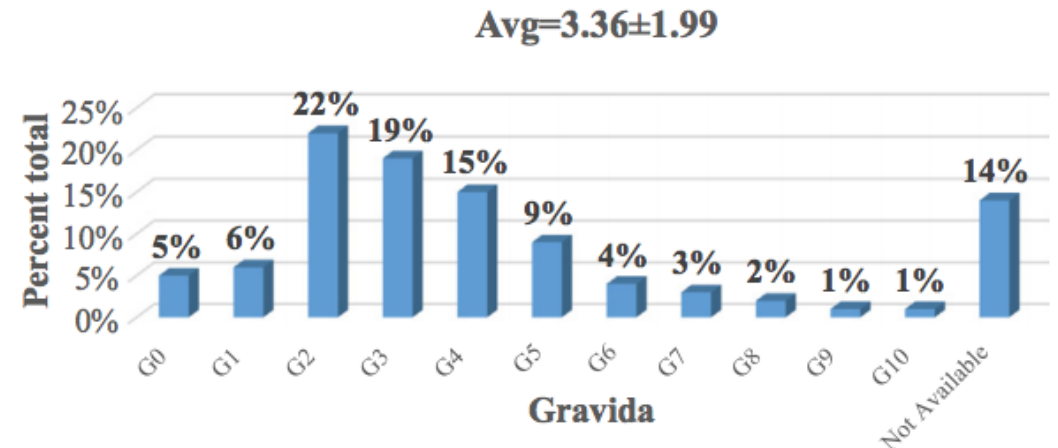


Fig 2. Number of pregnancies at the time of initial intervention for the entire cohort.

Iliac vein stenosis is an underdiagnosed cause of pelvic venous insufficiency



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Pelvic Congestion Syndrome

Treating iliac vein seems to be the biggest factor in symptom improvement.

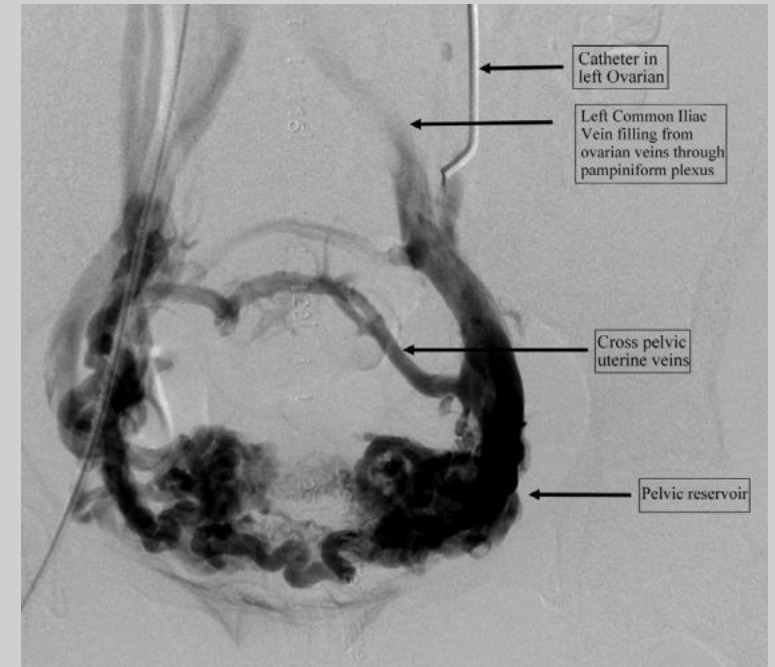


Table IV. Visual analog scale (VAS) pain scores by treatment type

	OVE	OVE + stenting	Stenting alone	OVE + venoplasty	Venoplasty alone	P value
Initial pain score on presentation	7.41 ± 1.33 ^a	8.62 ± 0.96	8.78 ± 0.83	8.75 ± 0.83	8.67 ± 0.47	<.006 ^a
Pain score 3 months after intervention	3.15 ± 3.10	1.63 ± 2.36 ^a	1.48 ± 2.57 ^a	1.89 ± 2.20	1.33 ± 1.25	<.01 ^a
Preintervention vs postintervention pain score	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> < .001	<i>P</i> = .25	

OVE, Ovarian vein embolization.

^aThe OVE group was utilized as the control group. Initial assessment VAS scores in the OVE group were significantly less than the other four groups. After intervention, the OVE + stenting and the stenting groups demonstrated a significant improvement in VAS compared to OVE. Compared to initial VAS scores, all postintervention scores demonstrated an improvement except for venoplasty.

Iliac vein stenosis is an underdiagnosed cause of pelvic venous insufficiency

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Down The Rabbit Hole



What other potential symptoms

- Hip Pain
- Back Pain
- Postural orthostatic tachycardia syndrome (POTS)
- Migraines
- Interstitial Cystitis
- Irritable Bowel
- Chronic Fatigue
- Fibromyalgia

How????

Dysautonomia symptoms

- Syncope
- Tachycardia
- Chest pain
- IBS
- Anxiety
- Tachypnea
- Pain all over
- Brain Fog
- Mastocytosis

Survey of PCS Facebook group

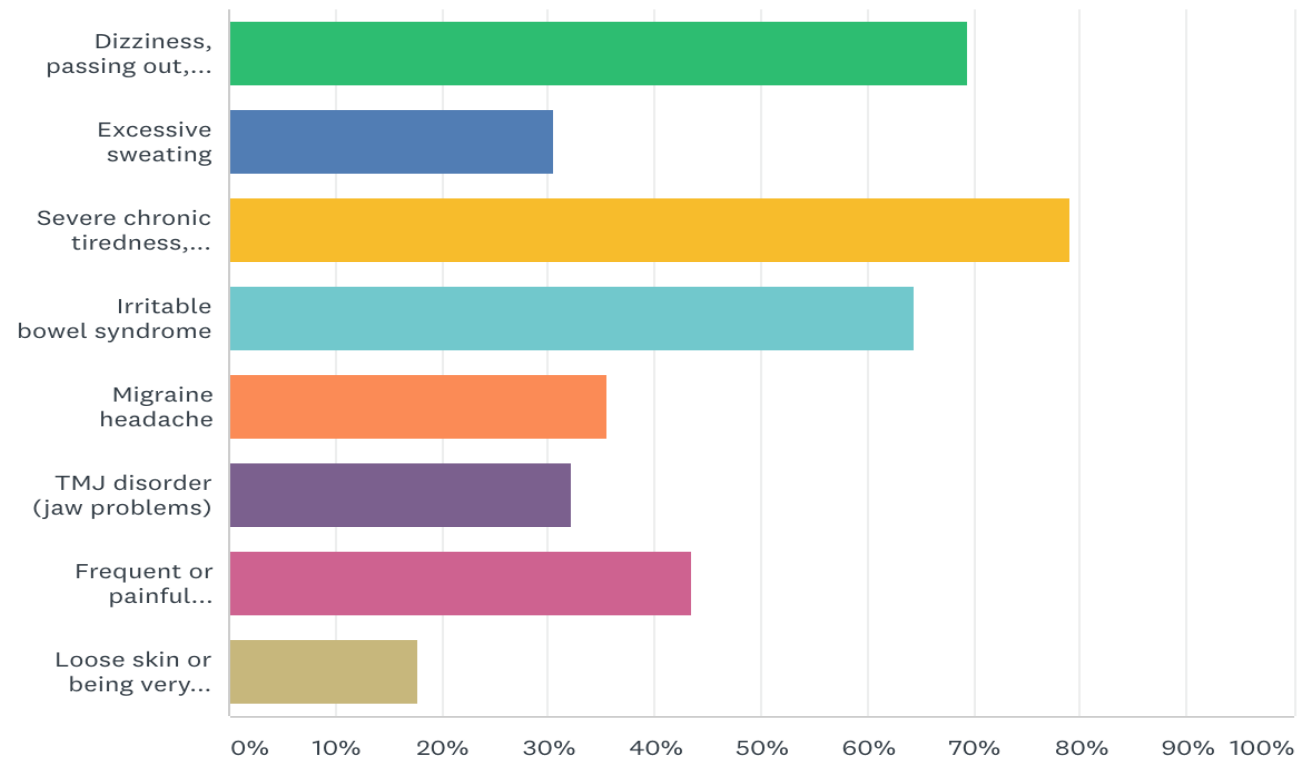
Q8

Customize

Export ▼

Have you had any of the following symptoms? These are not typically described for PCS.

Answered: 62 Skipped: 3



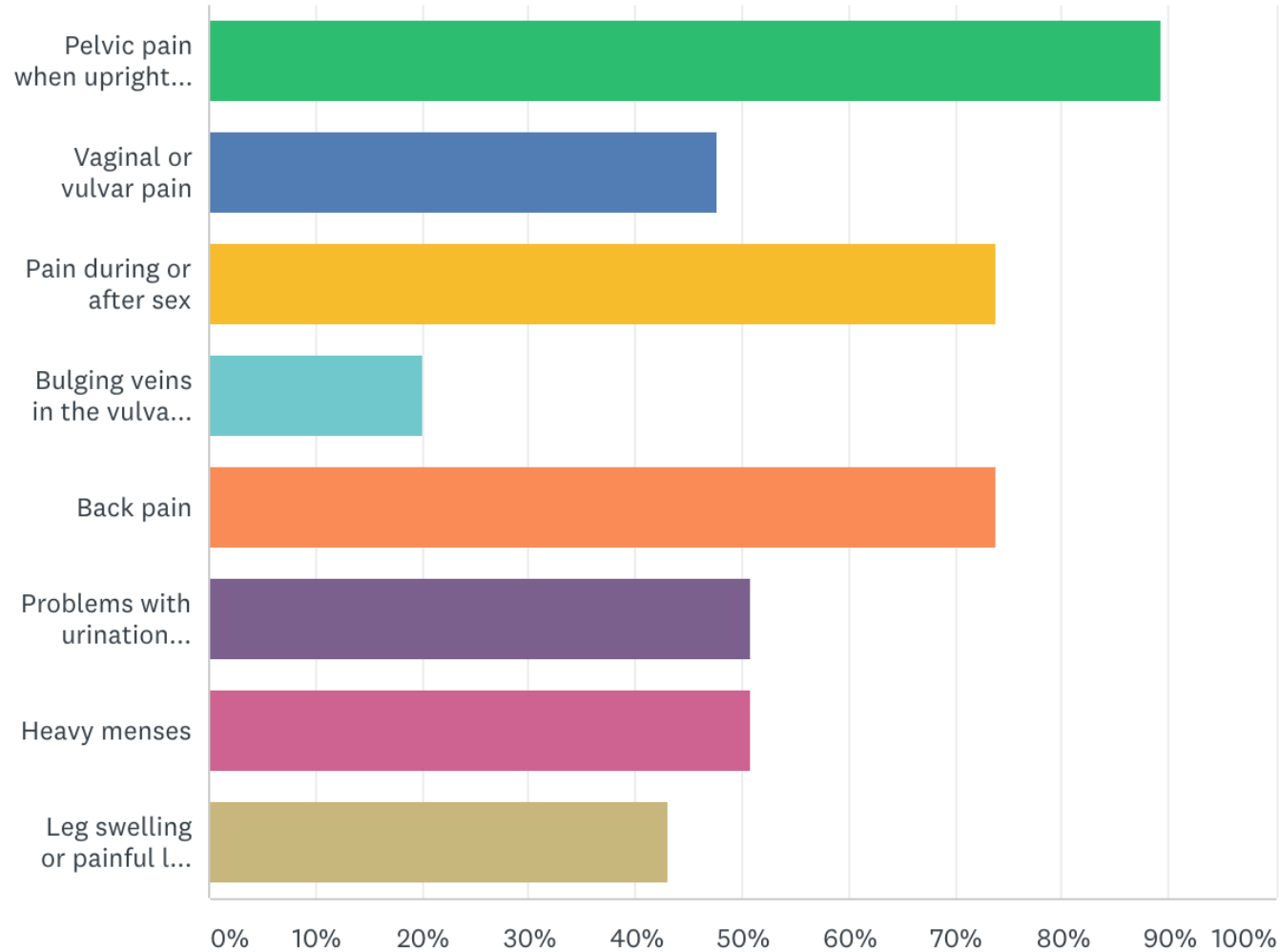
Q2

Customize

Export ▼

What were your symptoms of PCS (check all that apply)

Answered: 65 Skipped: 0



Interstitial cystitis

- Poorly understood. Incurable, pelvic floor dysfunction is blamed. May develop ulcers. Nocturia (>2 voids/night), frequency (>8 voids/day) “a diagnosis of exclusion”
- High correlation with **IBS, Lupus, CFS, Fibromyalgia**
- Vulvodynia in 85% of IC patients
- IC in 82% of vulvodynia patients.
- 4-12 million women may have IC. Median age **47 years.**
- IC/PBS patients have links to **autonomic neuropathy**
- Dyspareunia very common in IC patients
- **38% of CPP** patients have Interstitial Cystitis

Chronic Bladder Pain Syndrome (CBP)

- Cause unknown.
- Pelvic pain or discomfort during bladder filling for 6 months
- May also have LUTS frequency, Nocturia,
- High urine catecholamines. Higher blood norepinephrine levels than healthy controls.
- Associated with mastocytosis (sensitive skin, sympathetic link), IBS,
- Higher resting heart rate than controls. **It's IC with pelvic pain**

Hit the literature, nothing in English language on curing I.C., but...

Urologiia. 2012 Jul-Aug;(4):20-4.

[Endovascular treatment of persistent dysuria and chronic pelvic pain in women with pelvic varicose veins].

[Article in Russian]

Neĭmark AI, Shelkovnikova NV.

Abstract

The results of the examination and treatment of 16 patients aged from 26 to 46 years with persistent urinary disorders and chronic pelvic pain due to severe pelvic varicose veins are presented. Using ultrasound with color Doppler mapping and venography of renal and ovarian vein for evaluation of condition of the venous system of the pelvis, the significant dilation of the internal iliac, ovarian and uterine veins with a pronounced decrease in blood flow in veins up to the stasis of blood, accompanied by flow turbulence and powerful backflow of renal blood through ovarian veins were found in all patients. According to uroflowmetry, there was a decrease in detrusor tone and a violation of evacuation capacity of the bladder. Evaluation of microcirculation using LDF allowed to diagnose congestive hemodynamic type of microcirculation. Scleroembolization for varicose ovarian vein with Gianturco coil and ethoxysclerol was performed in all patients. Positive therapeutic effect in the form of eliminating varicose pelvic veins, pain relieve, disappearance of persistent dysuria, and the remission of chronic cystitis was achieved in 86% of women. This intervention provided the normal outflow of blood from the pelvic veins, contributed to the normalization of uroflowmetry data and restoration of normal microcirculation in the urinary bladder.

PMID: 23116017 [PubMed - indexed for MEDLINE]

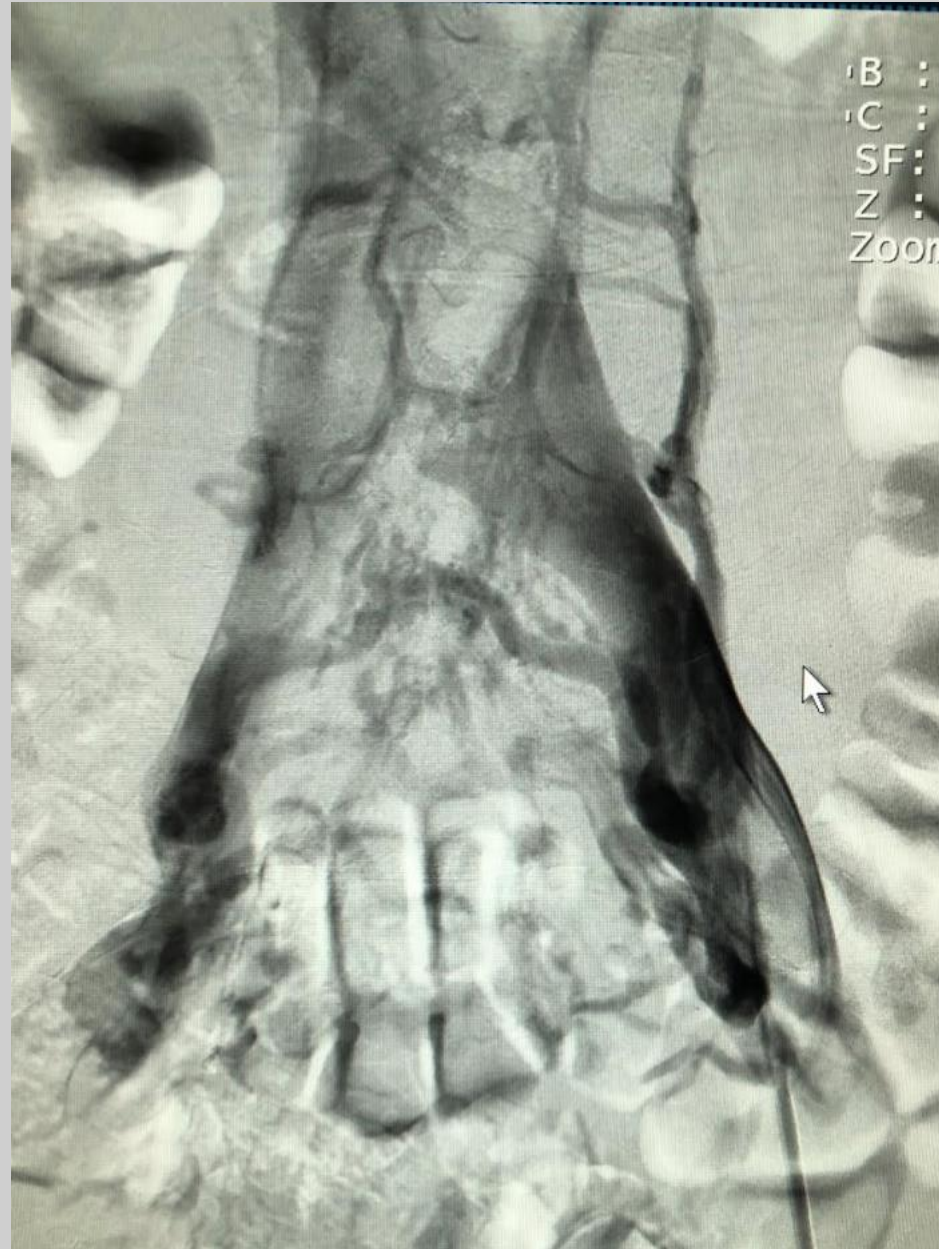
Wow, I didn't know about this

the remission of chronic cystitis was achieved in 86% of women.

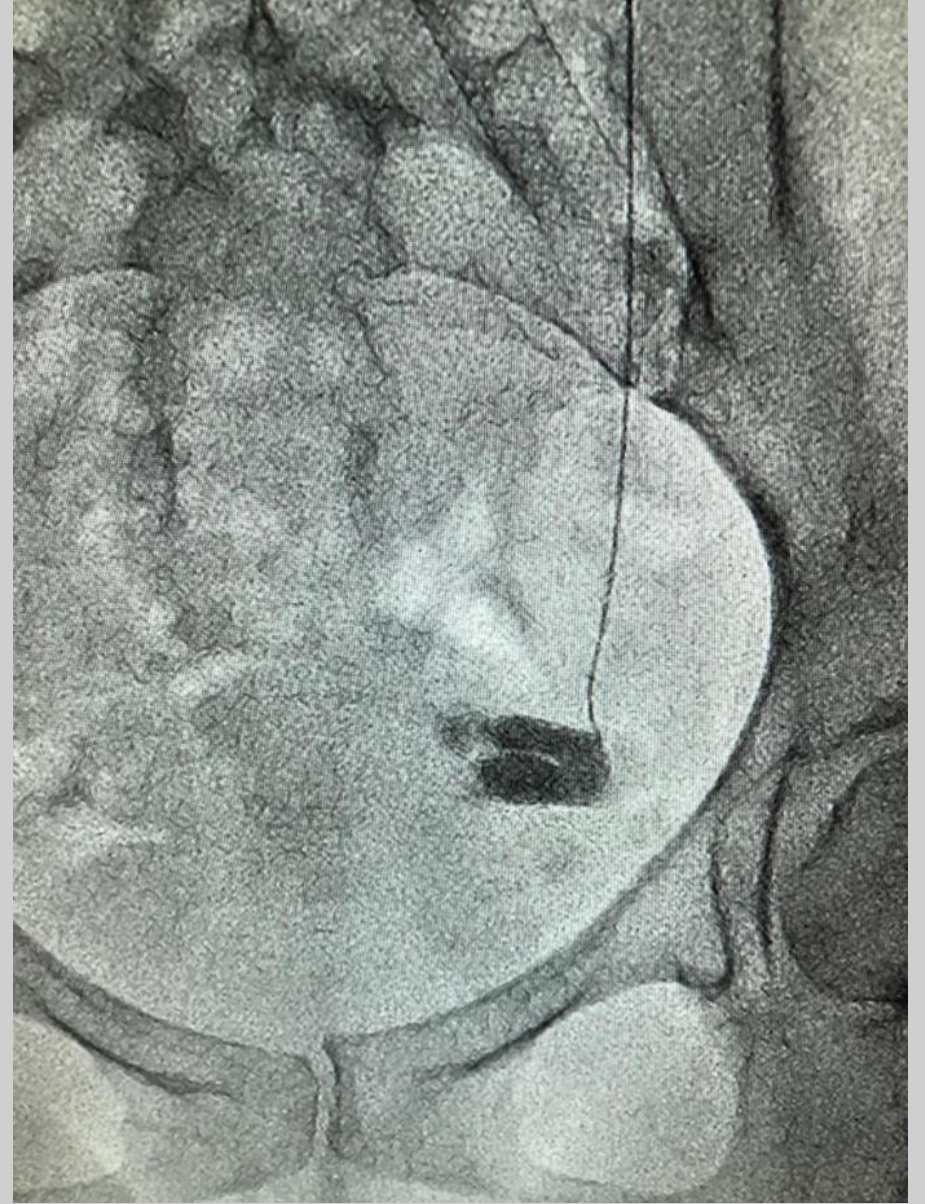
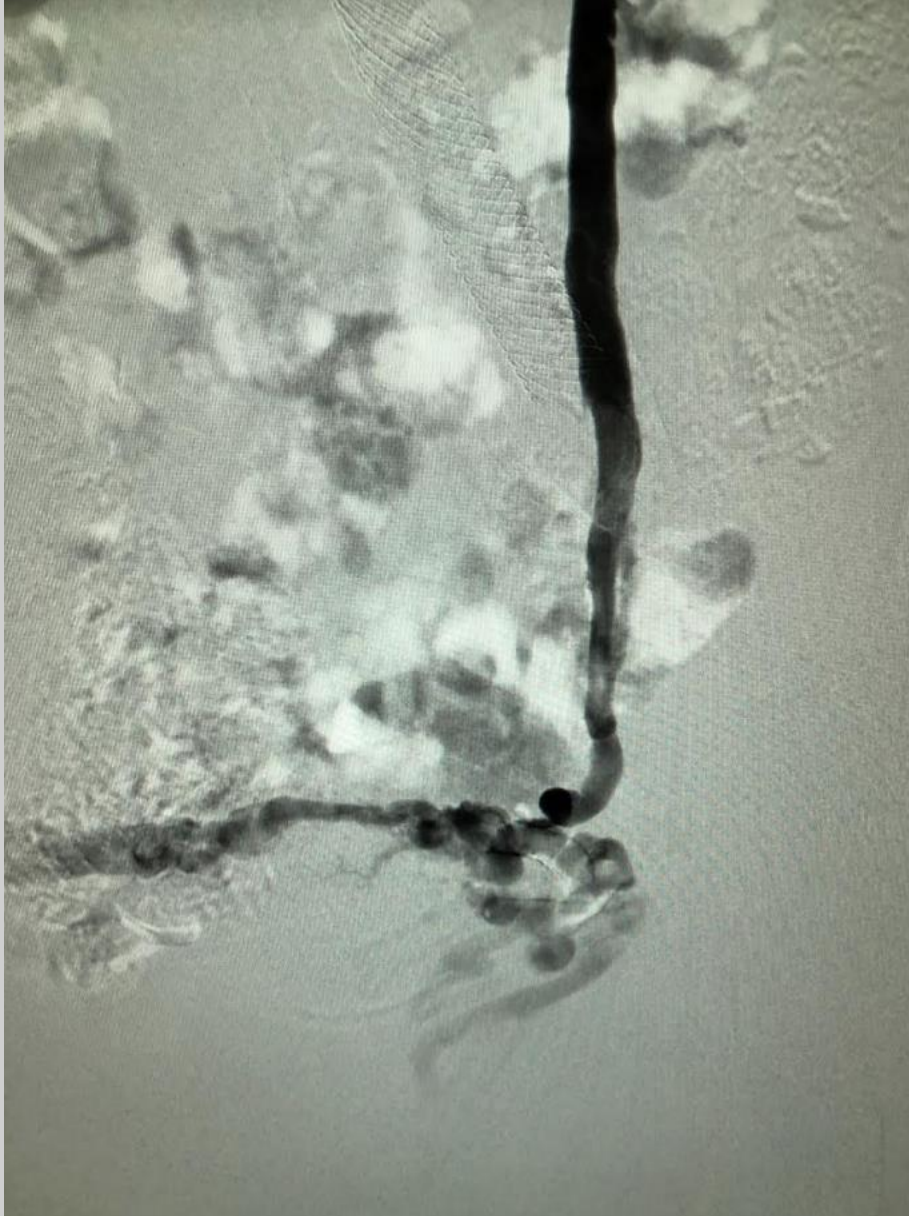
Case 1

- 24 yo female with chronic 10/10 pelvic, hip and back pain since birth of her second child.
- PCP, gynecologist, and pain management told her she is a pain seeker and nothing is wrong with her.
- Buying Lortab off the street illegally

Case 1

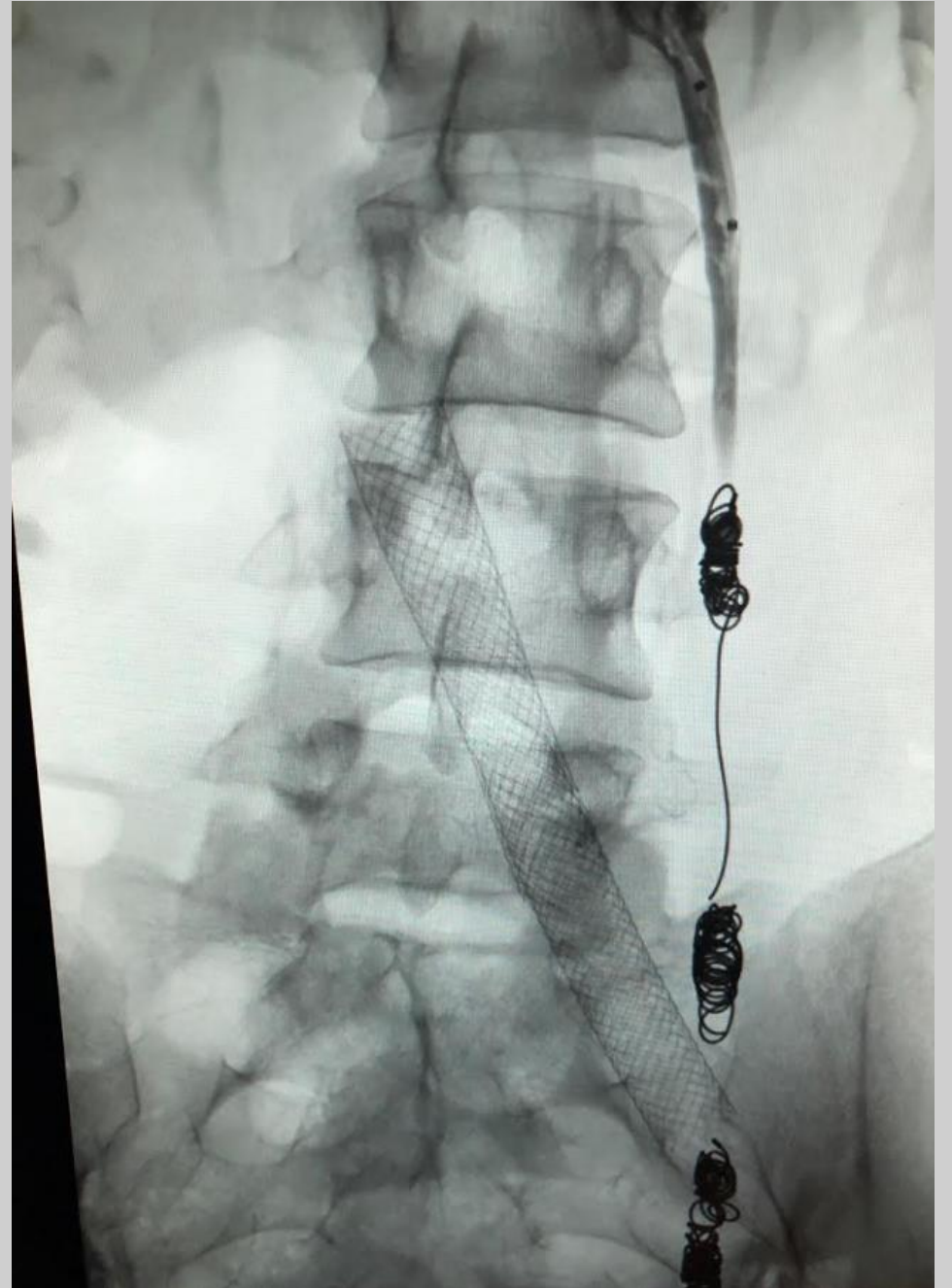


Case 1



Case 1

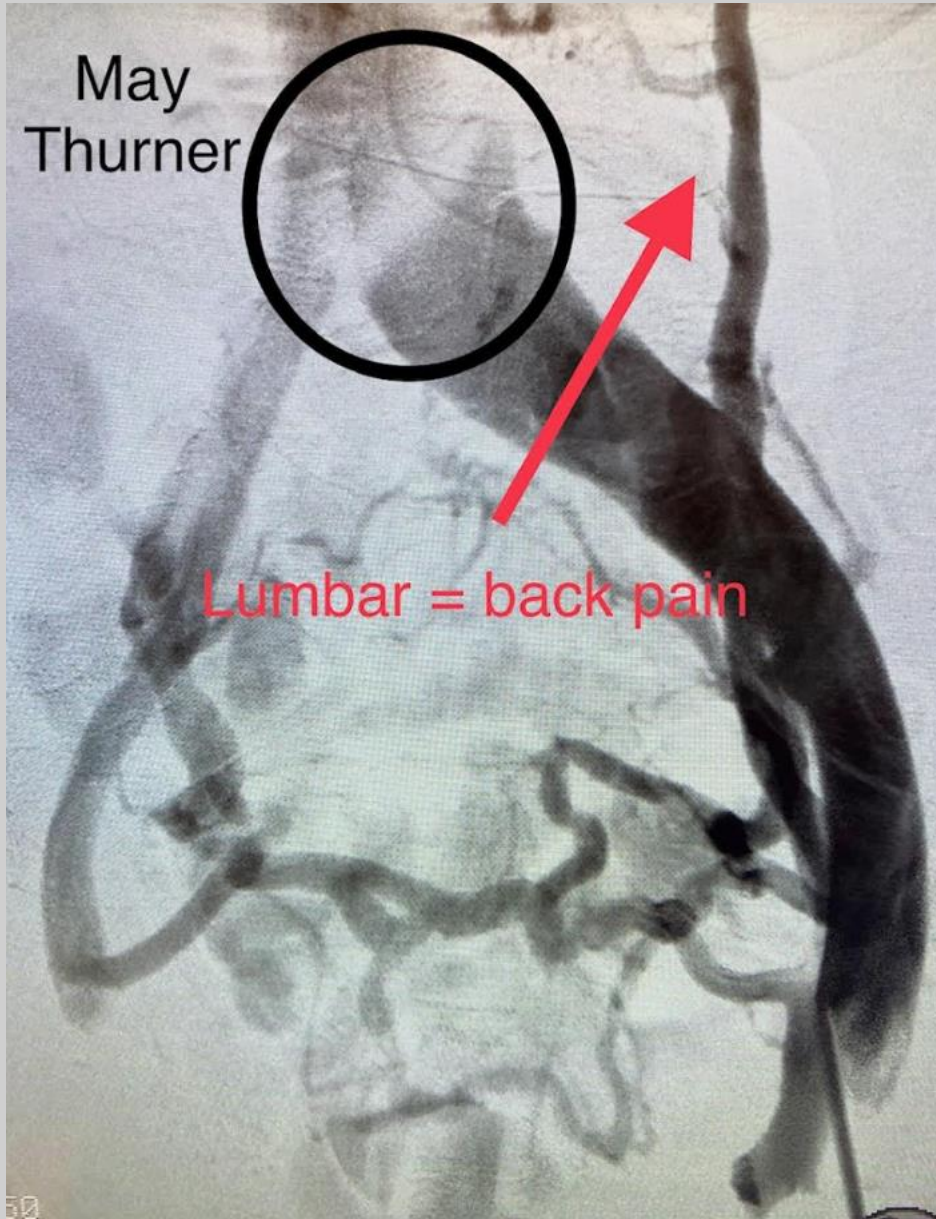
Patient now doing well. Able to sleep on sides and back. Decreasing narcotics.



Case 2

- 43 yo female with nutcracker syndrome and chronic pelvic and back pain. History of 2 pregnancies. Numerous evaluations with no definitive diagnosis.

Case 2

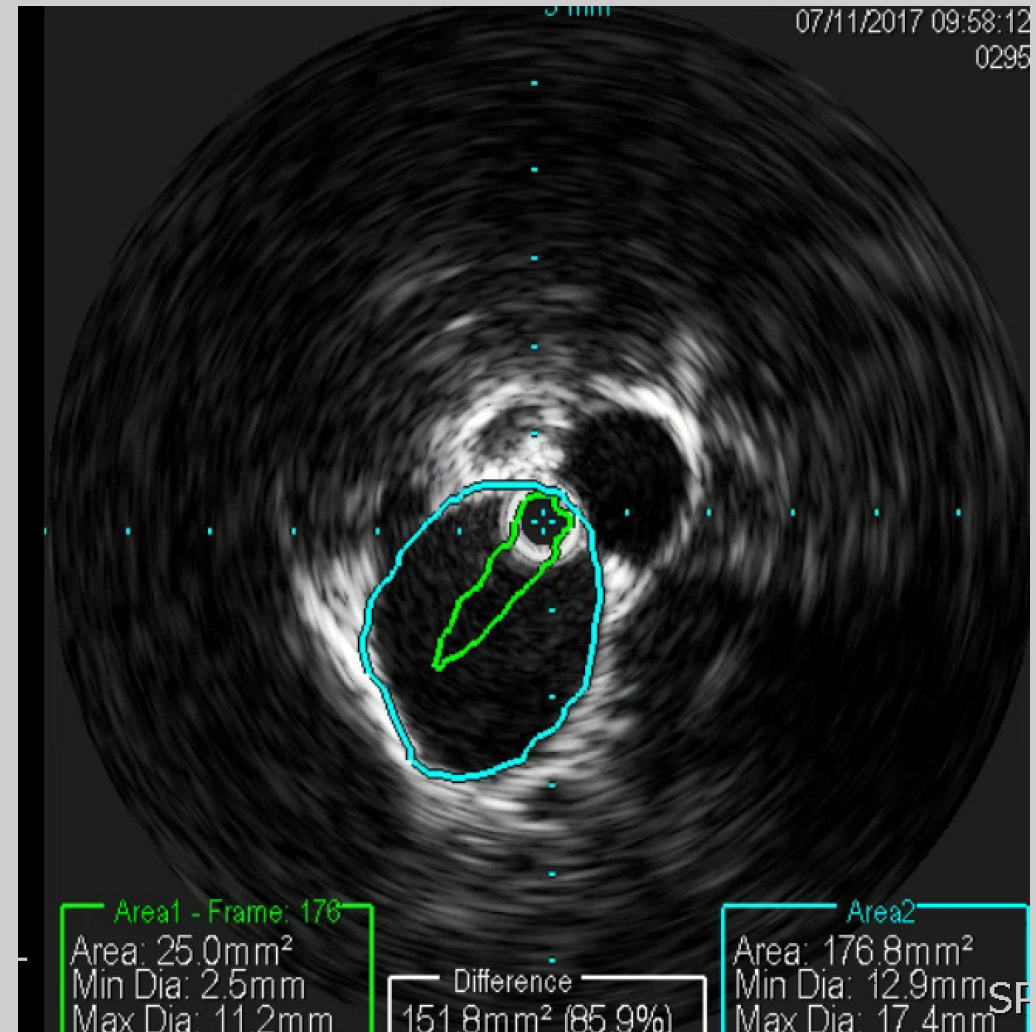


Case 3

35 Y/O female

- Has severe pelvic and vaginal pain when upright.
- W/U, nothing found. Asks about this “Pelvic Congestion” thing, told “there’s no such thing”.
- Gets put on gabapentin, makes her sleepy
- Also has daily crushing chest pain. Gets cardiac W/U: normal coronaries. Put on Xanax by the cardiologists.
- Still has daily crushing chest pain “like someone is standing on my chest.”

Iliac vein compressed 86%, stented.



Gonadal reflux too,
so

Bilateral CIV stents

Embo Lt Gonadal vein with
coils, slurry

Patient does well, goes back
to housecleaning.

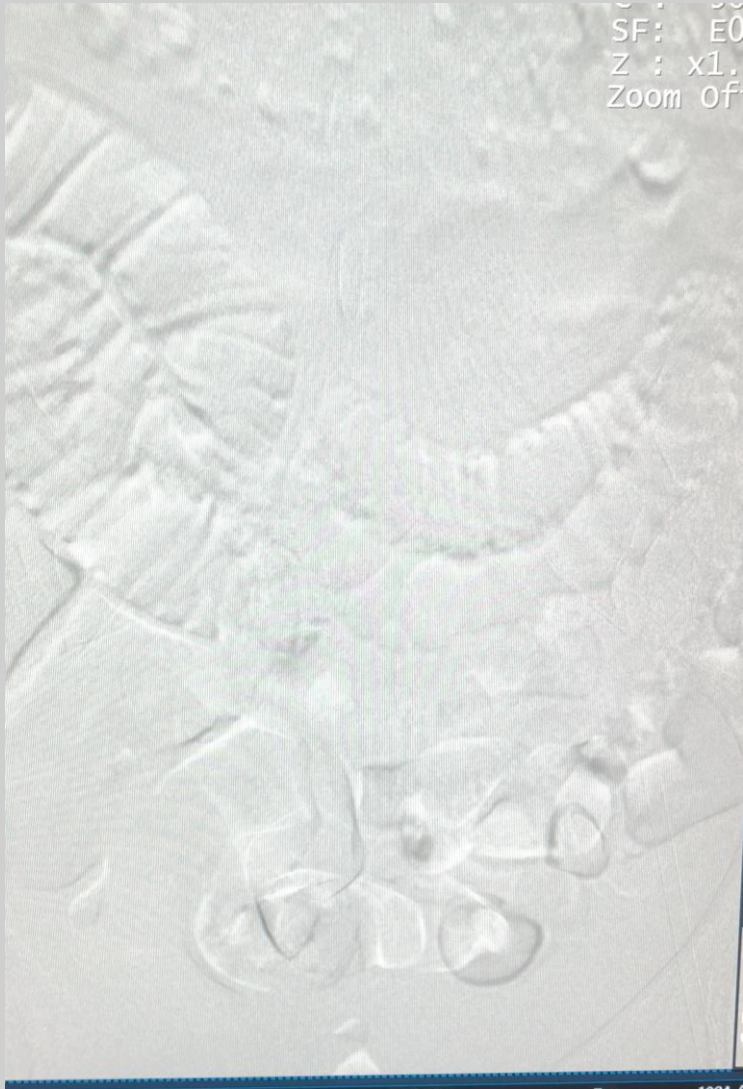
Comes back for 3 month
follow up



3 Month Follow up in IR Clinic

- Chronic pelvic pain totally gone. Off of Gabapentin, can work all day. No pain after sex.
- Crushing chest pain totally gone. Off of Xanax.
- Feels much more calm. Can't thank us enough!
- What the heck did we do????

45 yo female with Pelvic Pain, POTS, IC



Thank You

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