

# PRIMARY PELVIC CONGESTION SYNDROME

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# DEFINITIONS

Chronic Pelvic Pain

Pelvic Vein Insufficiency

*Pelvic Congestion Syndrome*



# PELVIC CONGESTION SYNDROME SYMPTOMS

- Dull pelvic pain, pressure, heaviness
  - Back pain, sexual activity, exercise
  - Chronic >> 6 months (non-cyclic)
- 
- *Pelvic varices & non-saphenous leg varicosities*

# DIFFERENTIAL DIAGNOSIS FOR CHRONIC PELVIC PAIN

- Bowel pathology
- Cancer metastases
- Endometriosis
- Fibromyalgia
- Iatrogenic
- Neurologic pathology
- Orthopedic pathology
- Ovarian cyst
- PID
- Fibroids
- *Pelvic Congestion Syndrome*

60% Idiopathic



# PELVIC CONGESTION SYNDROME RISK FACTORS

- Heredity
- Pelvic surgery
- Retroverted uterus
- Hx varicose veins
- *Multiple pregnancies*

# CHRONIC PELVIC PAIN

- 30% women suffer from chronic pelvic discomfort
- 1/3 of all Gyn OP appointments
- 15% of all hysterectomies
- 30% exploratory laparoscopies
- 39 billion/year



# PELVIC CONGESTION SYNDROME BACKGROUND

- Very common?
- Under reported
- Poorly understood
- Difficult to prove

# WORK-UP

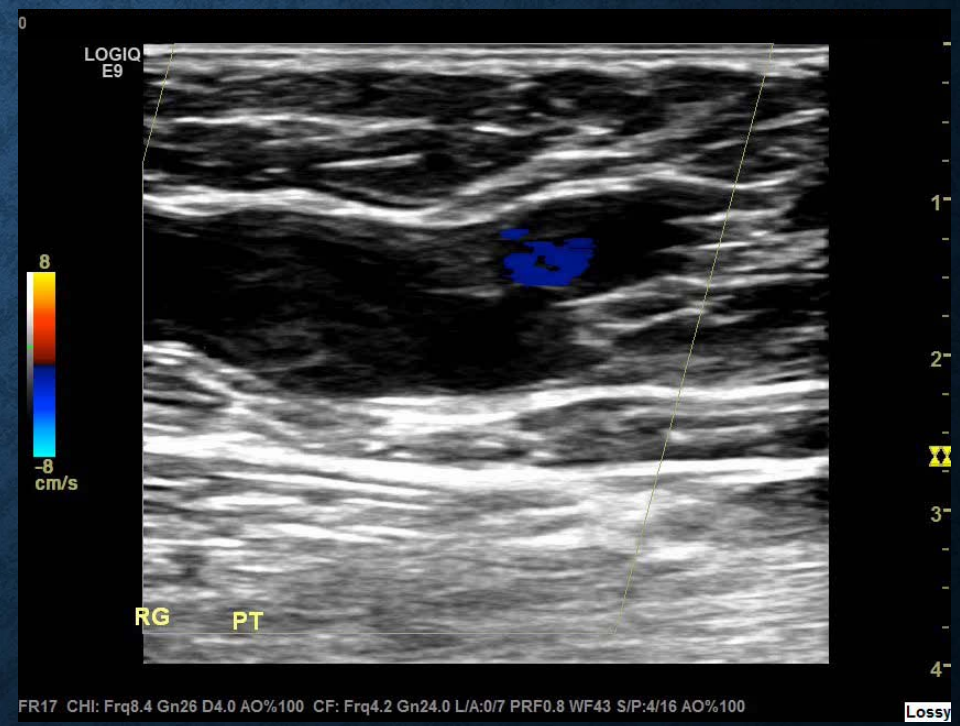
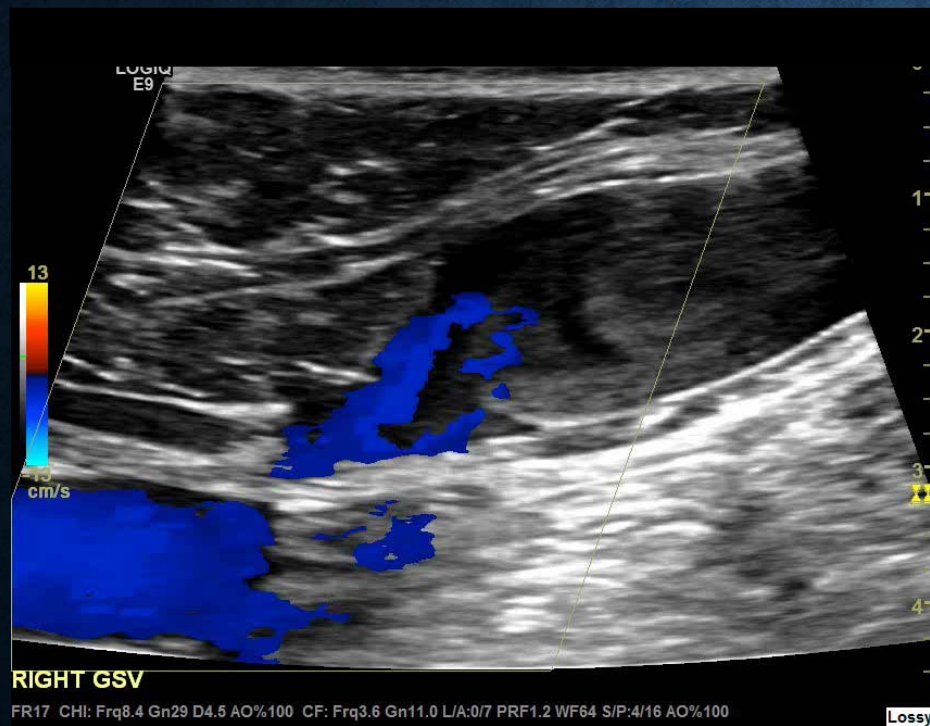
- Pregnancy Test
- Physical Exam
- Bloodwork
- Pap Test
- Cross-sectional Imaging Study



# INCOMPETENT PELVIC VEINS EXTENDING INTO THE GROIN



# INCOMPETENT GREAT SAPHENOUS VEIN





# CEAP

C Clinical

E Etiology

A Anatomic

P Pathophysiologic

C

E

A

P

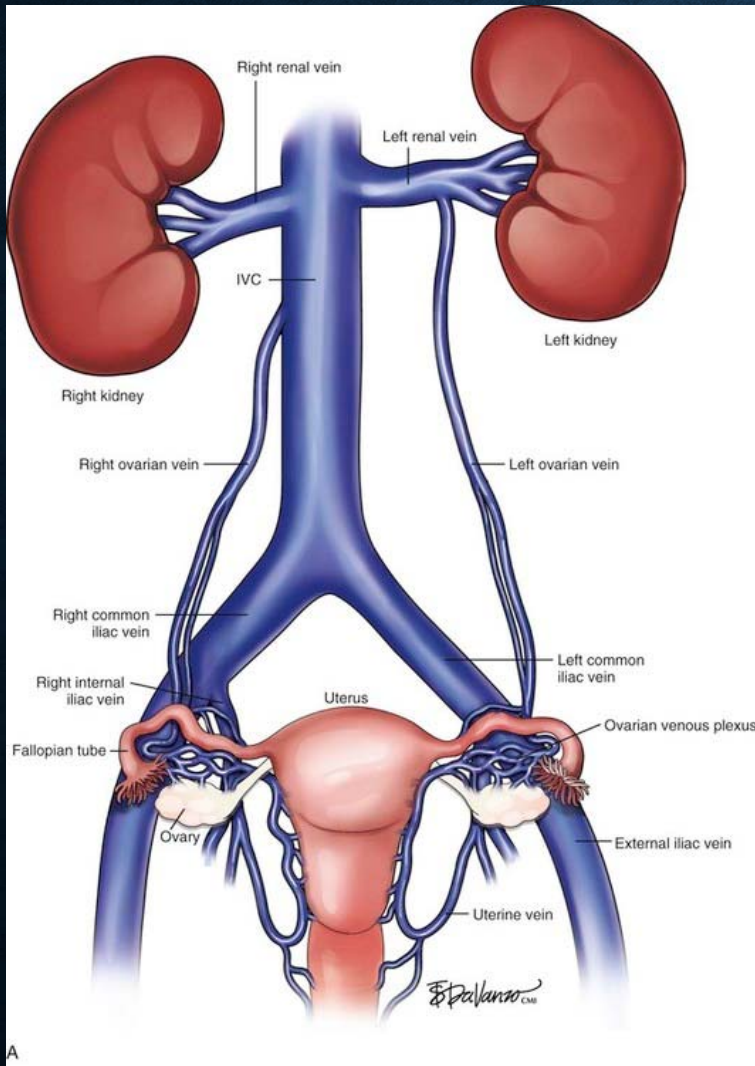
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# ANATOMY



- Left ovarian vein joins left renal vein
- Left ovarian vein is most often affected
- Right ovarian vein joins the IVC



# IMAGING MODALITIES

- DUS
- Endovaginal US
- Venogram
- Computed Tomography
- Laparoscopy
- Magnetic Resonance Venography

*Expense, Contrast, Depth, Operator Dependent*

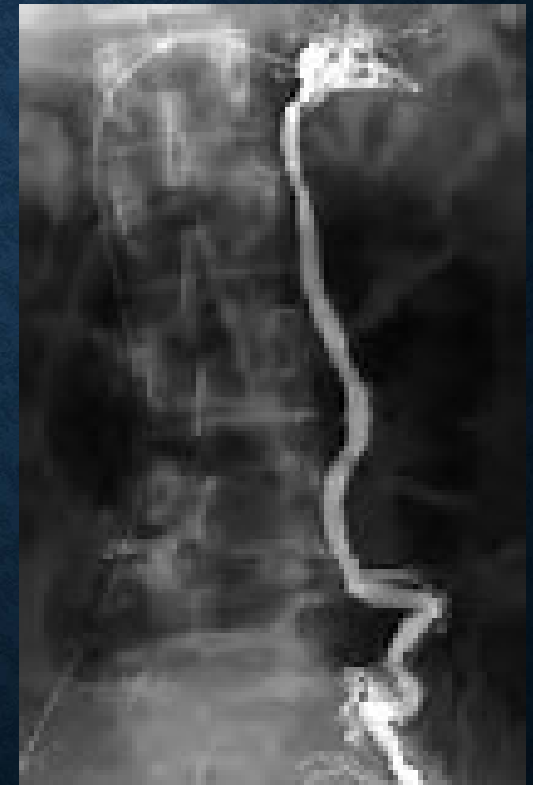
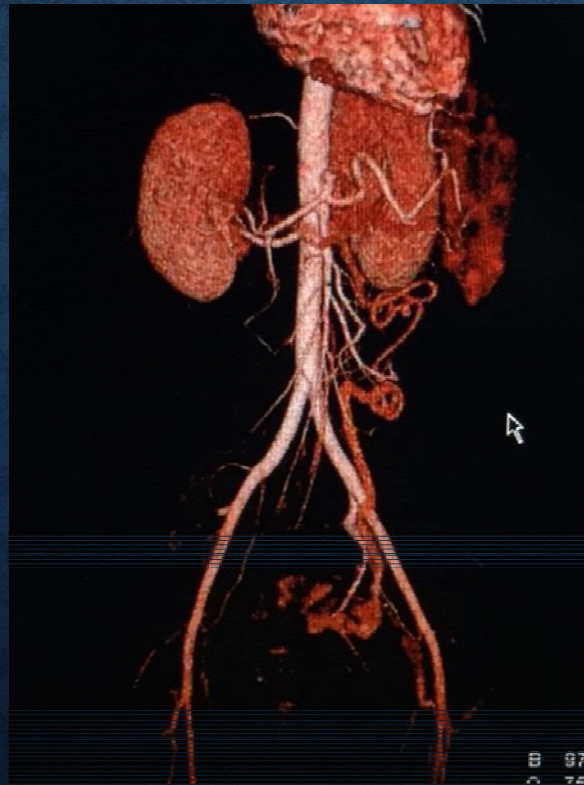
# DILATATED LEFT OVARIAN VEIN MRV

Normal 3.8 – 5.0 mm  
Incompetent 7.5 – 10.0 mm

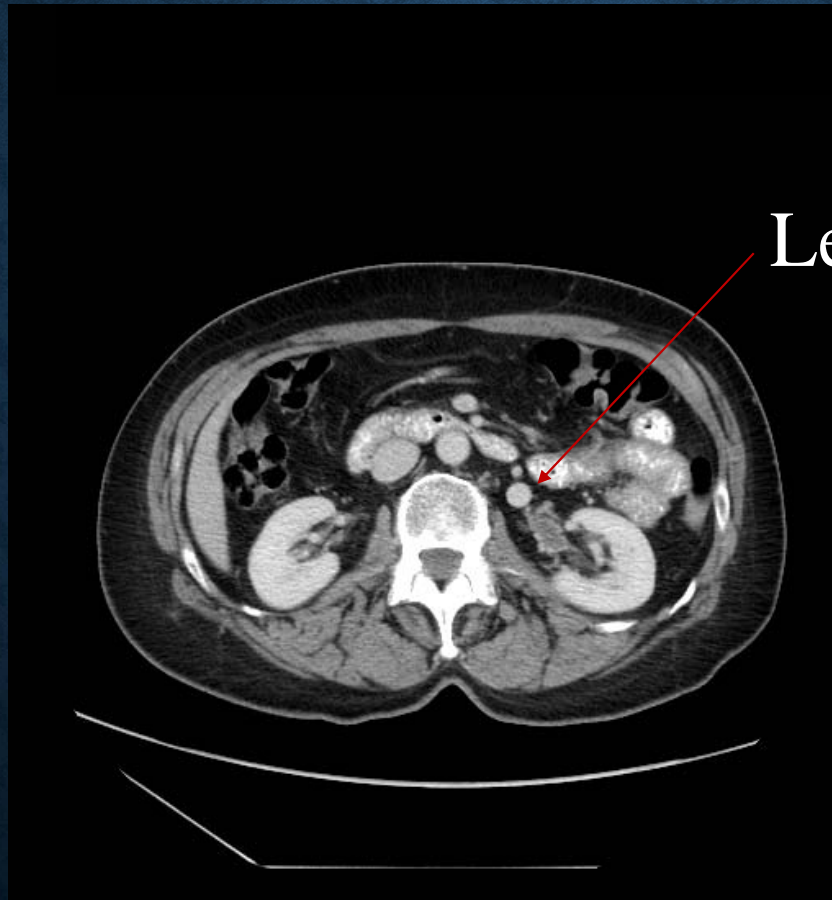
Many diagnosticians rely almost exclusively on vein diameter for diagnosis of OV reflux



# OVARIAN VEIN LONGITUDINAL IMAGING



# CROSS-SECTIONAL IMAGING



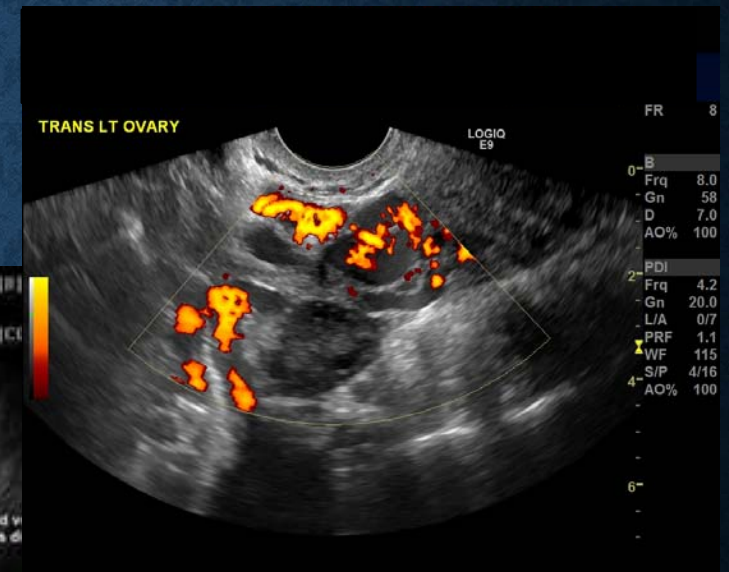
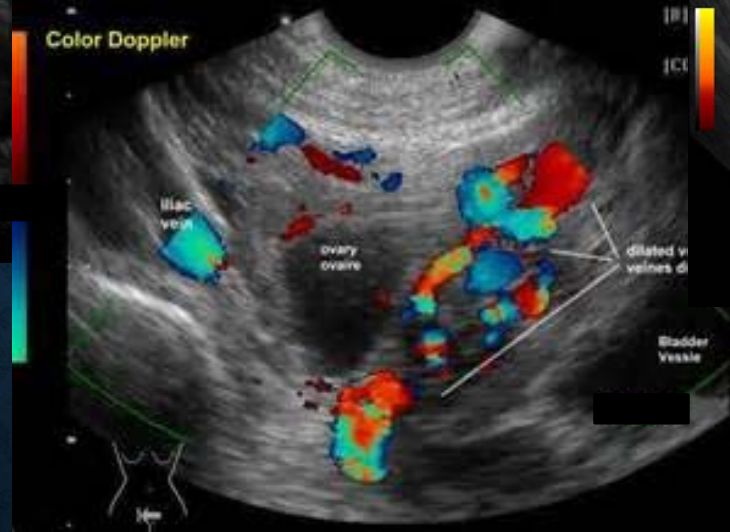
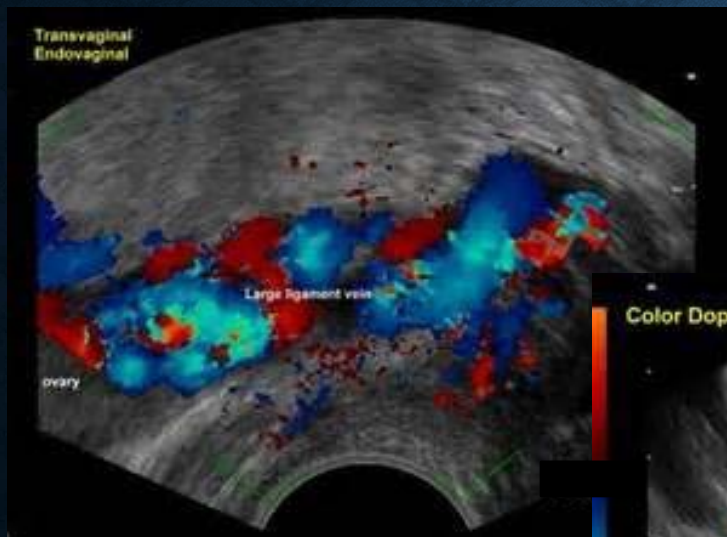
Left ovarian vein



# CROSS-SECTIONAL IMAGING



# ENDOVAGINAL IMAGING





# TREATMENT

- Medroxyprogesterone acetate (MPA)
- Ovarian Vein Ligation Under Laparoscopic Guidance
- Ovarian Vein Embolization Under Fluoroscopic Guidance

# TREATMENT

## LAPAROSCOPIC LIGATION





# TREATMENT COIL EMBOLIZATION



# WHAT DO WE THINK WE KNOW?

- Approximately one out of three pre-menopausal women suffer from chronic pelvic pain
- A significant number of these women have PCS
- Ovarian vein incompetence is a major reason for PCS
- Multi-parity is a major aggravating factor for incompetent ovarian veins
- Men can also suffer from PCS and we know even less about this area
- Ultrasound is an underutilized modality for diagnosing PCS



# CONCLUSIONS

- PCS is underappreciated and poorly understood
- Ovarian vein imaging is very challenging
- Gyn centers are well positioned to investigate this area

# OVERLOOK MEDICAL CENTER

