Treating Haemorrhoids via Pelvic Vein Embolization

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hembolize™

Spectrum Of Pelvic Venous Disease

- Pelvic Congestion Syndrome
- Pelvic Reflux
- Haemorrhoidal Disease

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Pelvic Congestion Syndrome

Pain

Irritable bowel symptoms

Irritable bladder

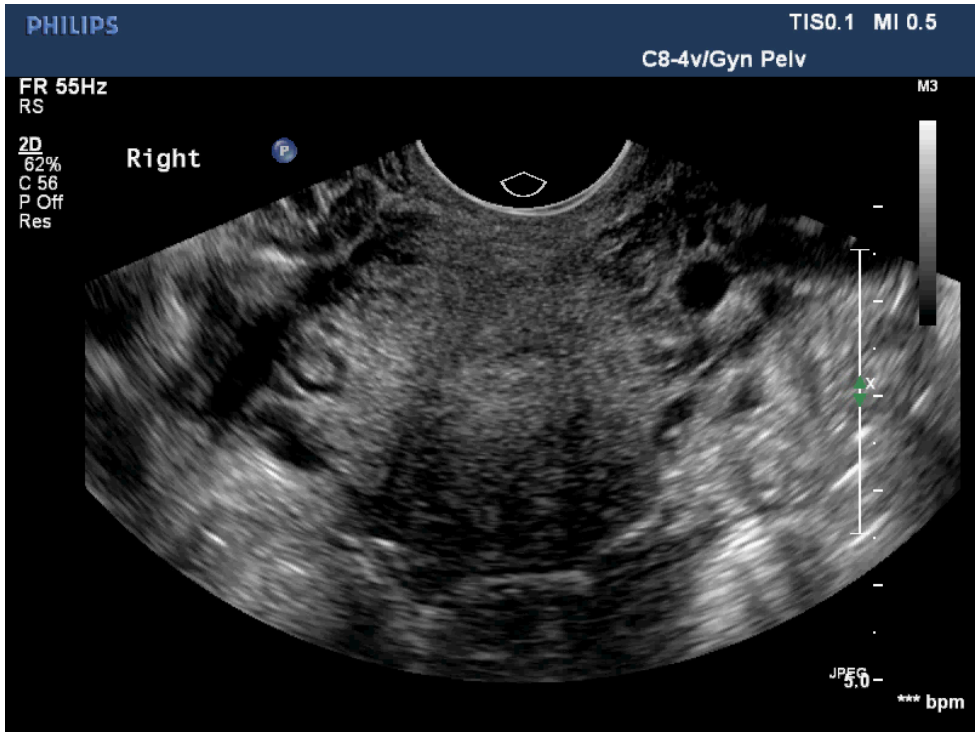
Dyspareunia

Irritation/throbbing in labia

HAEMORRHOIDS

Cyclical symptoms

Unexplained ‘Gynae pain’



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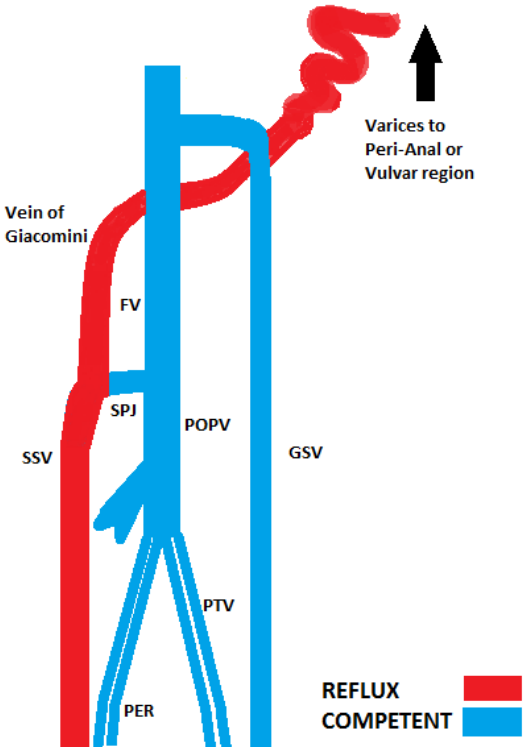
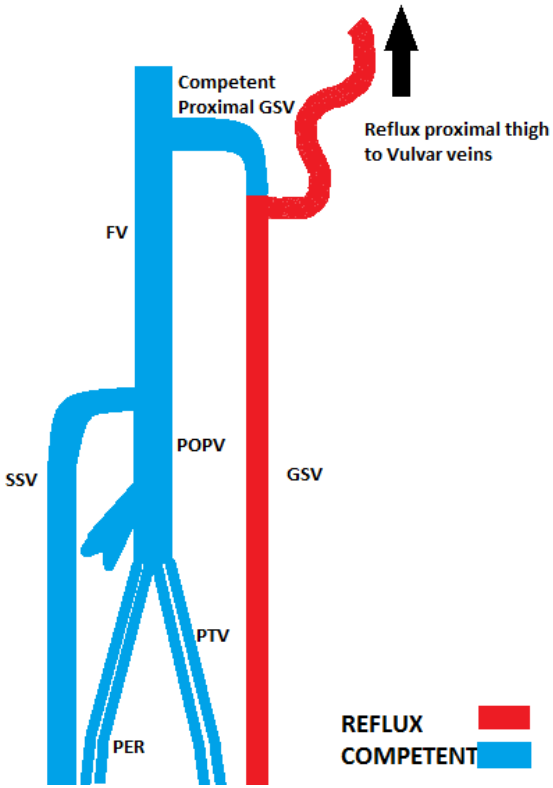
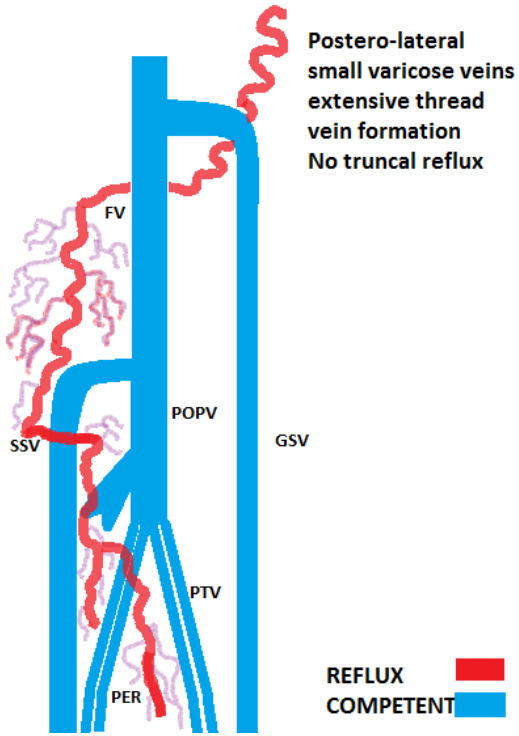
Pelvic Reflux







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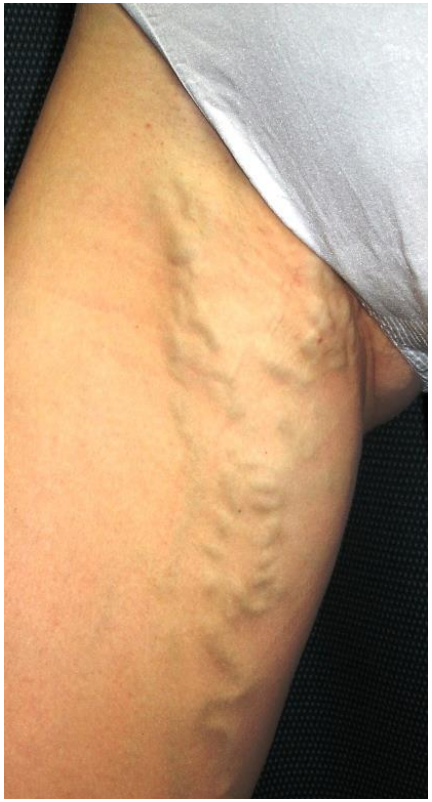

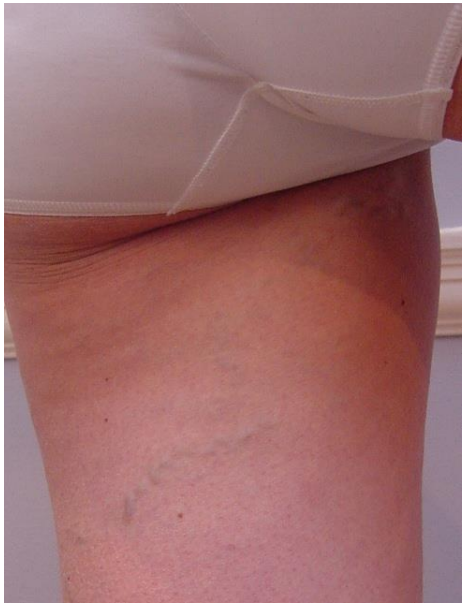

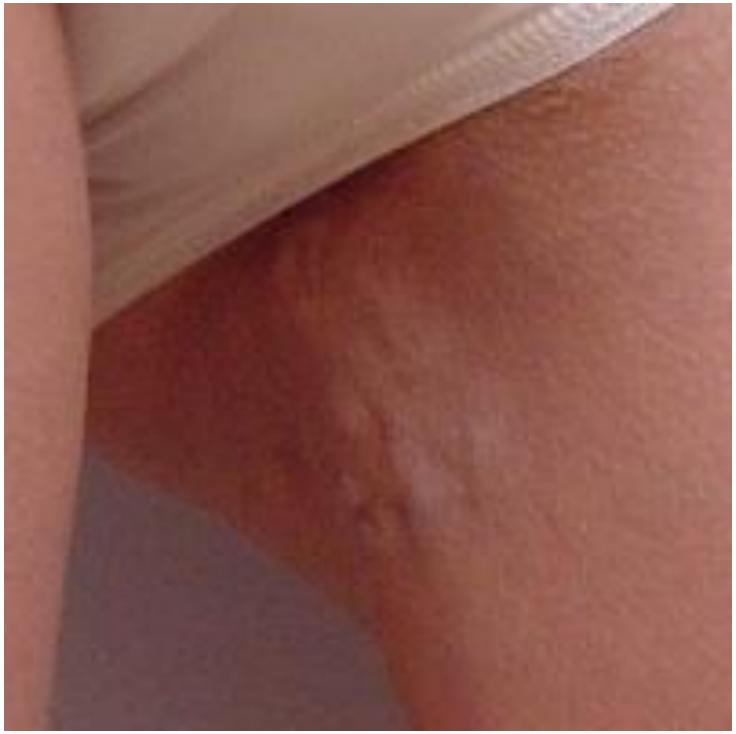

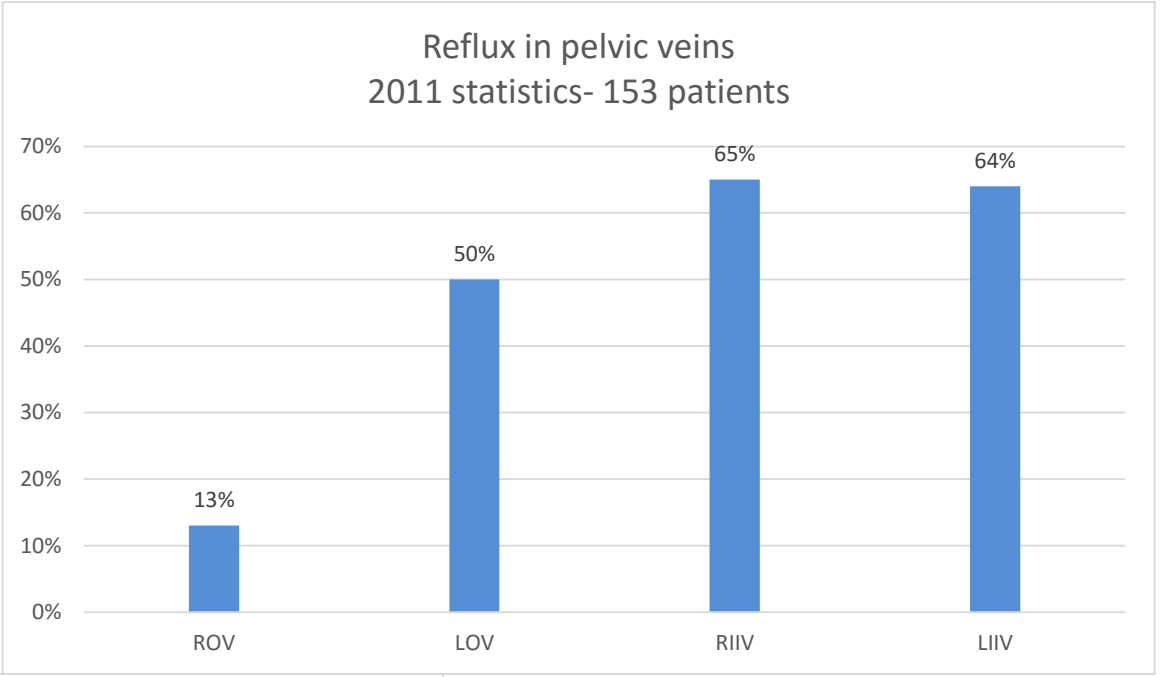

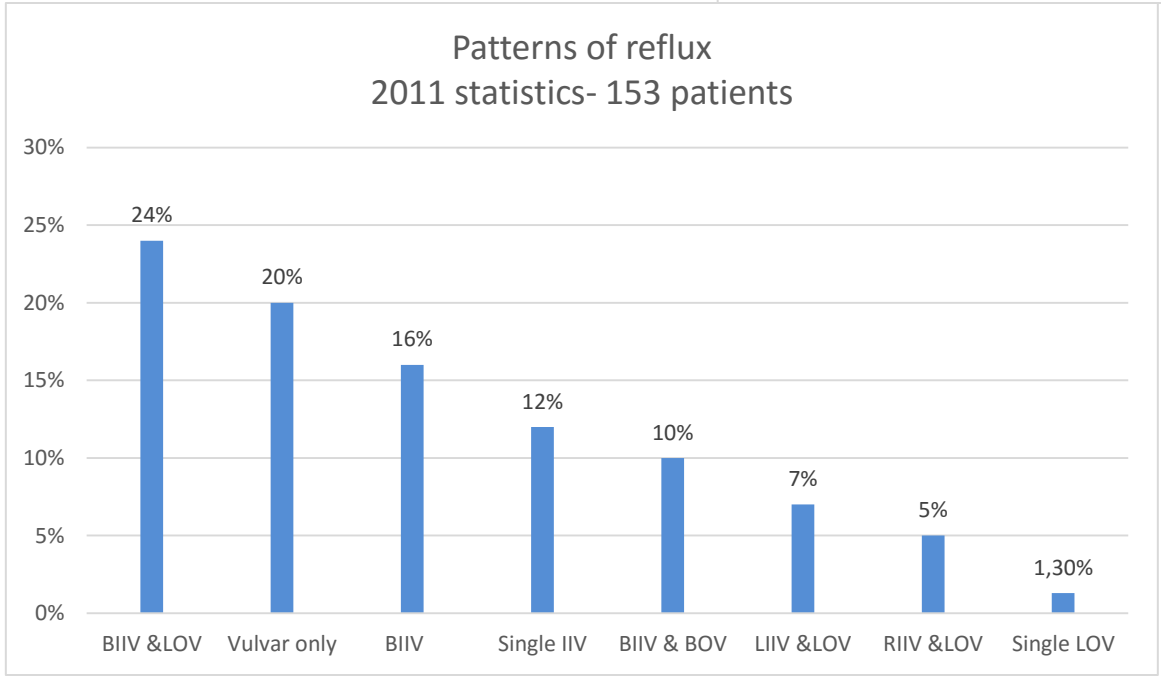

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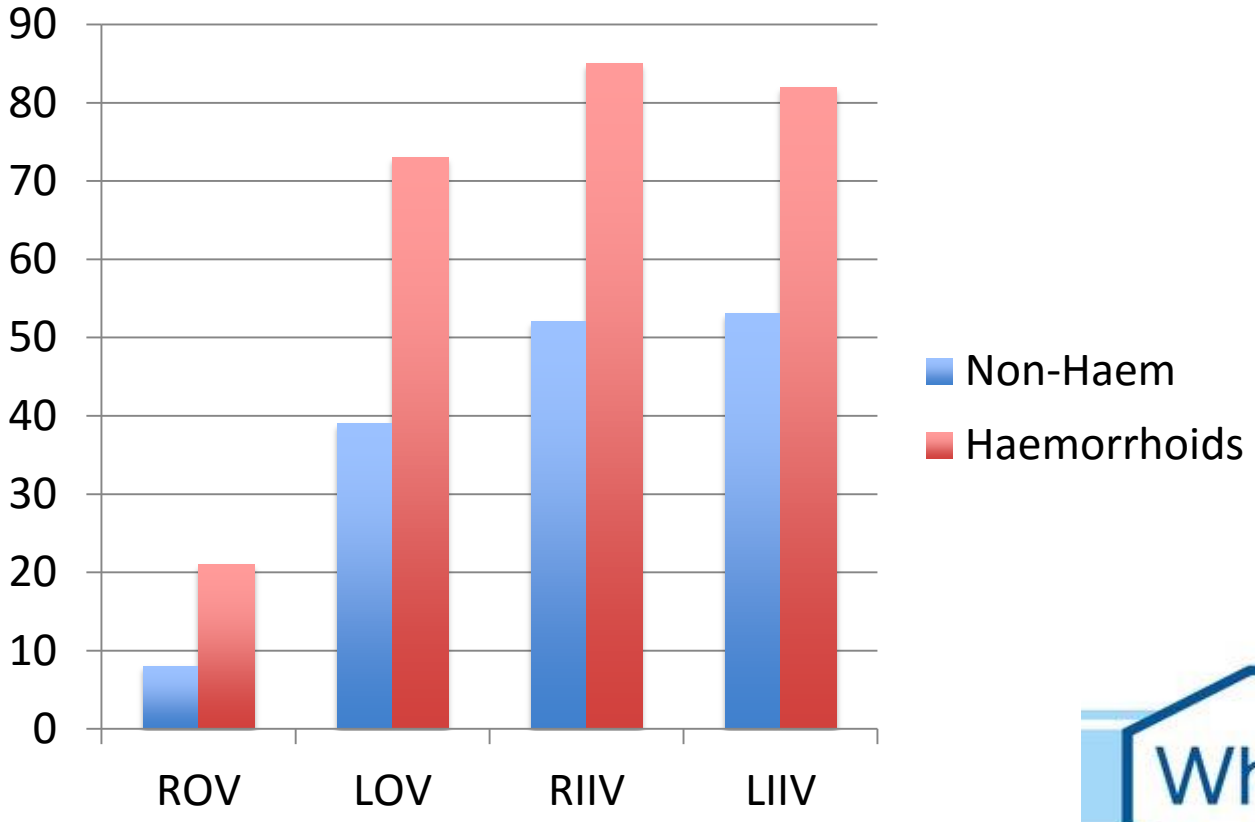
Percentage Reflux in Pelvic Trunks
n=56 H vs. 97 NH



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The Role of Transvaginal Duplex

TWC Protocol

- TVUSS at 45 degrees with valsalva
- Reflux >1s (trunk>5mm)
- Syphon effect
  - Trickle
  - Moderate
  - Severe
  - Gross

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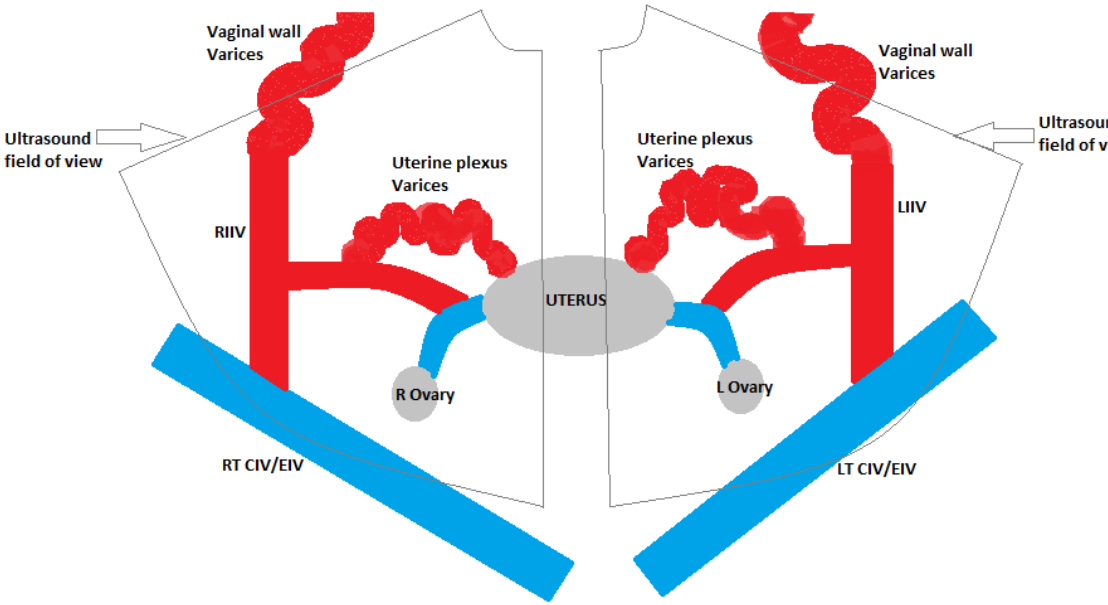

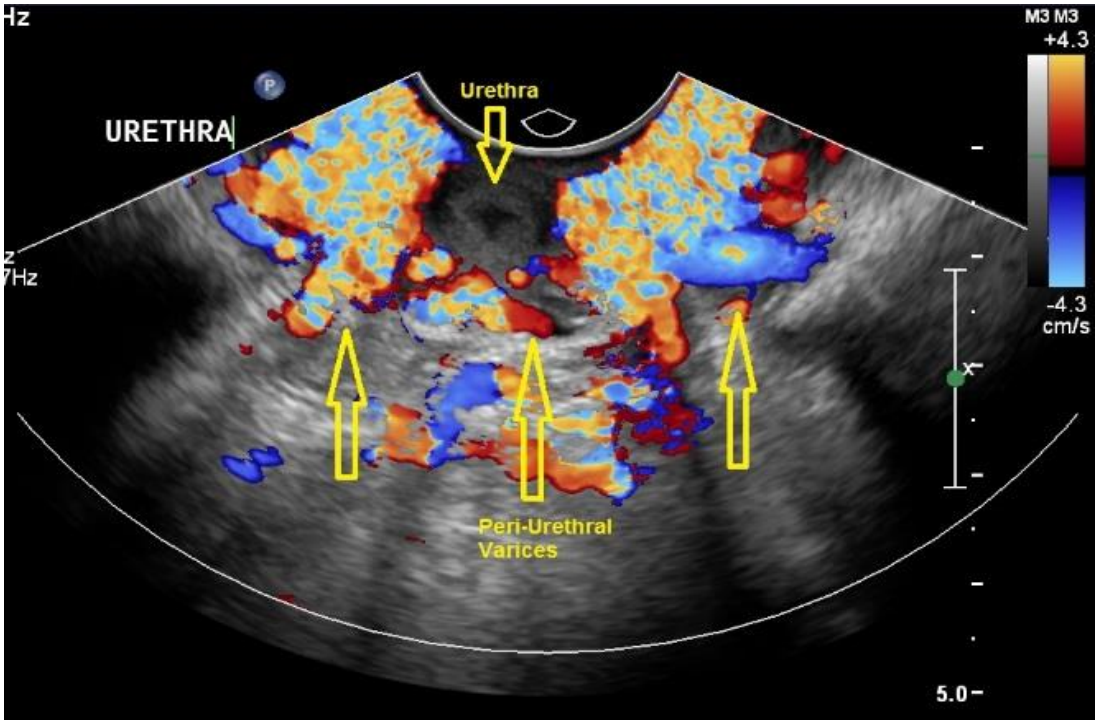

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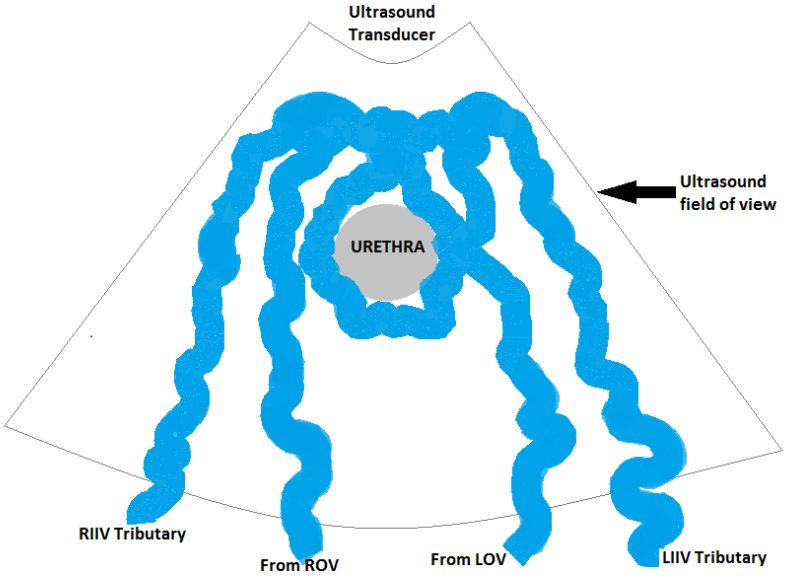
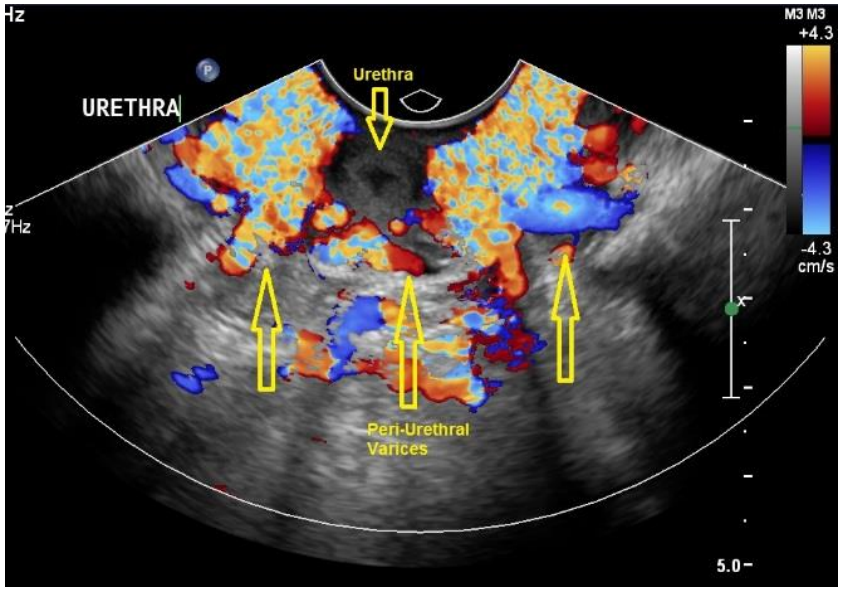
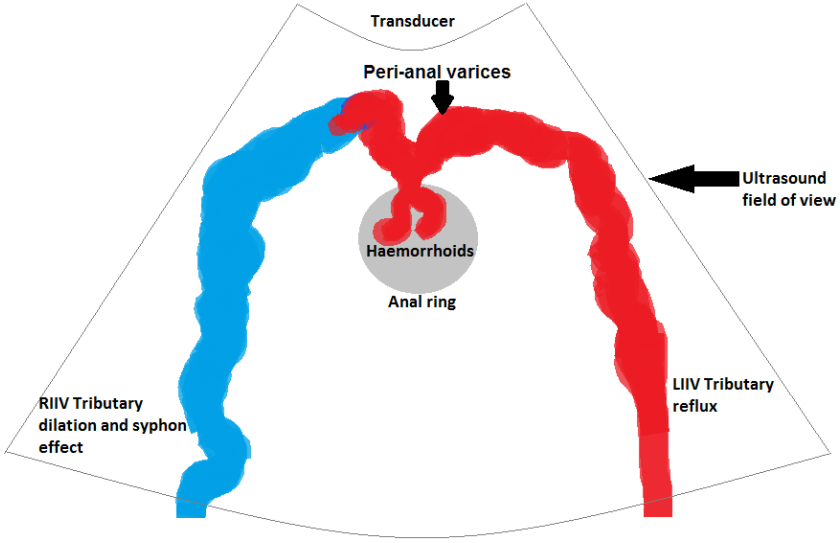
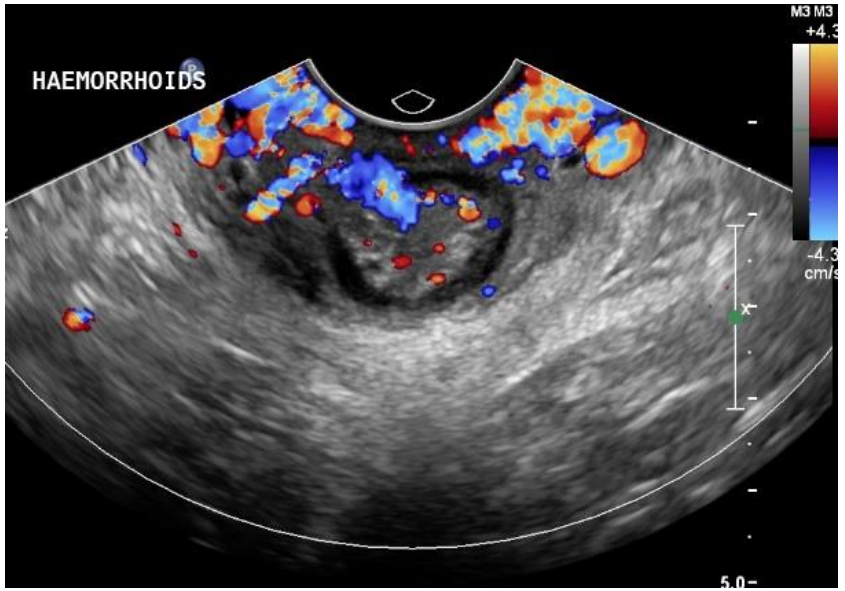

Ultrasound
Transducer
Ultrasound
field of view
URETHRA
RIIV Tributary
From ROV
From LOV
LIIV Tributary


URETHRA
Urethra
Peri-Urethral
Varices
M3 M3
+4.3
-4.3
cm/s
5.0


Transducer
Peri-anal varices
Ultrasound
field of view
Haemorrhoids
Anal ring
RIIV Tributary
dilation and syphon
effect
LIIV Tributary
reflux


HAEMORRHOIDS
M3 M3
5.0

Haemorrhoidal Disease

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Haemorrhoids

- Scope of the problem
- Pathophysiology
- Anatomical
- Treatment Options

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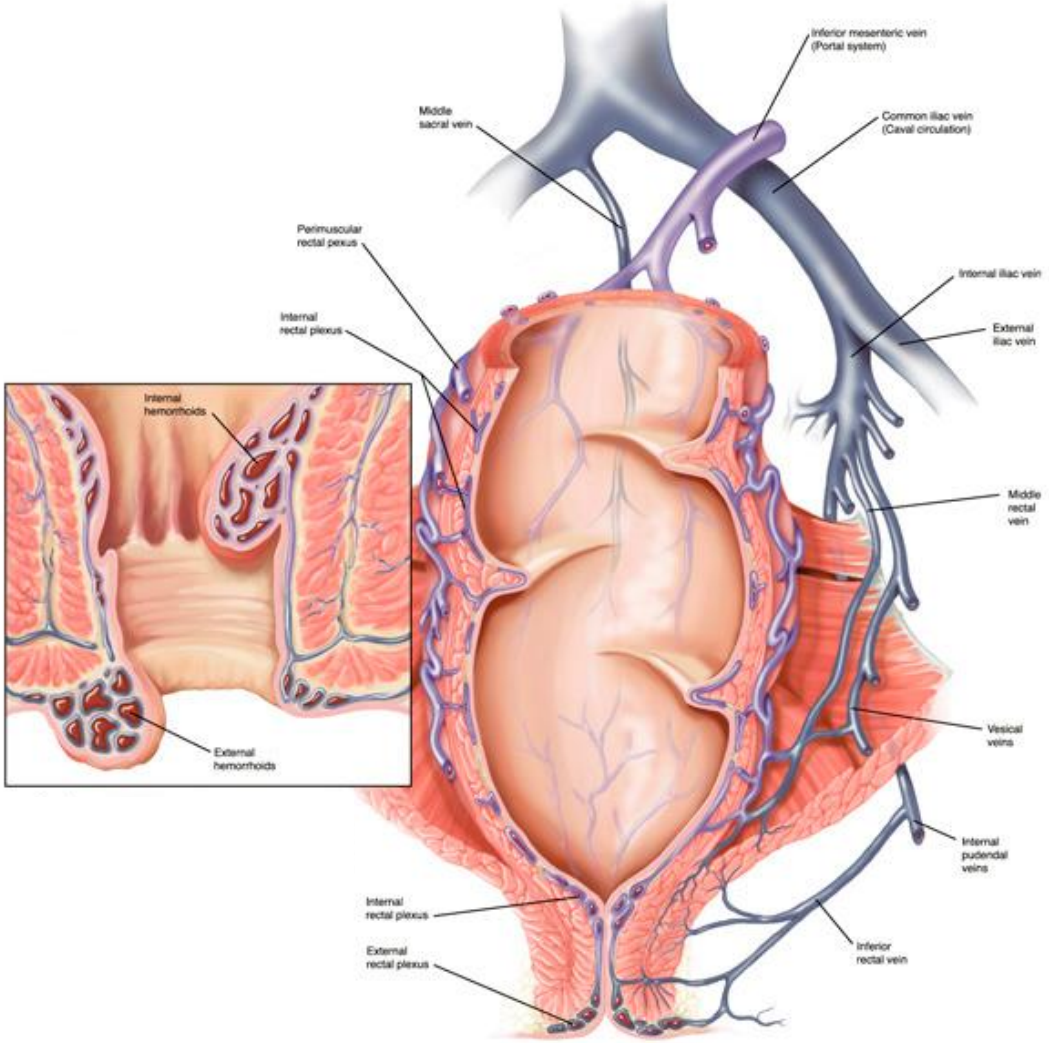
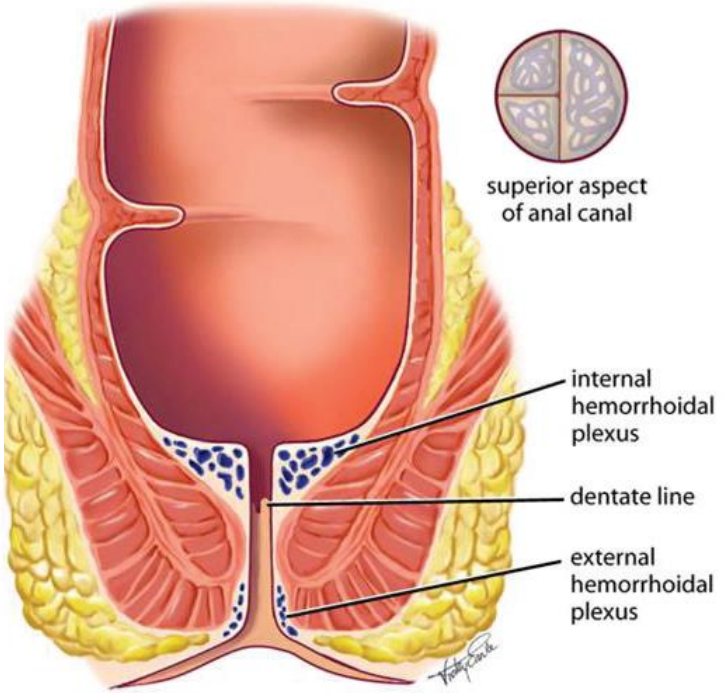
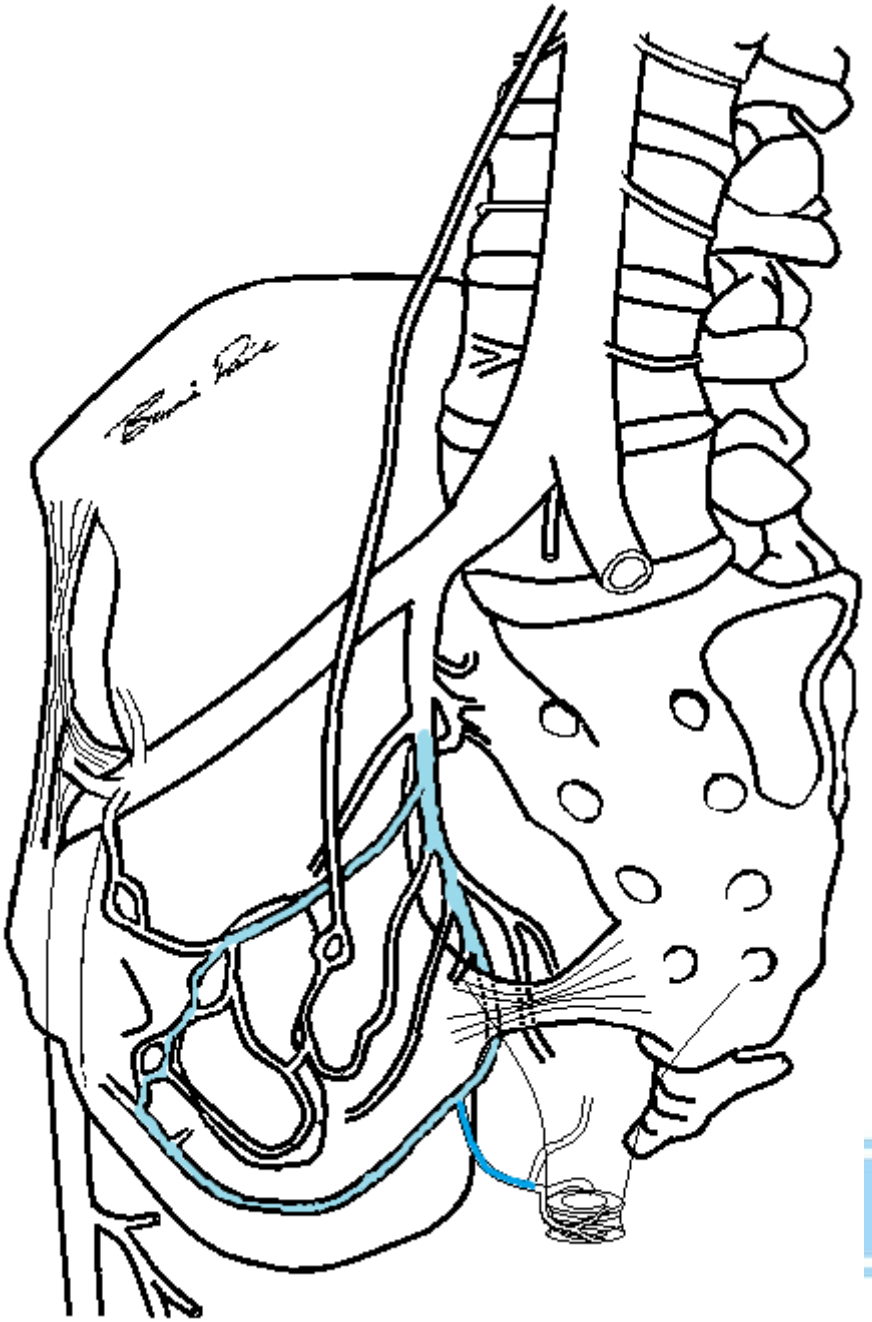

Inferior mesenteric vein
(Portal system)
Middle
sacral vein
Common iliac vein
(Caval circulation)
Perimuscular
rectal pexus
Internal iliac vein
Internal
rectal plexus
External
iliac vein
Internal
hemorrhoids
Middle
rectal
vein
Vesical
veins
External
hemorrhoids
Internal
pudendal
veins
Internal
rectal plexus
Inferior
rectal vein
External
rectal plexus


superior aspect
of anal canal
internal
hemorrhoidal
plexus
dentate line
external
hemorrhoidal
plexus



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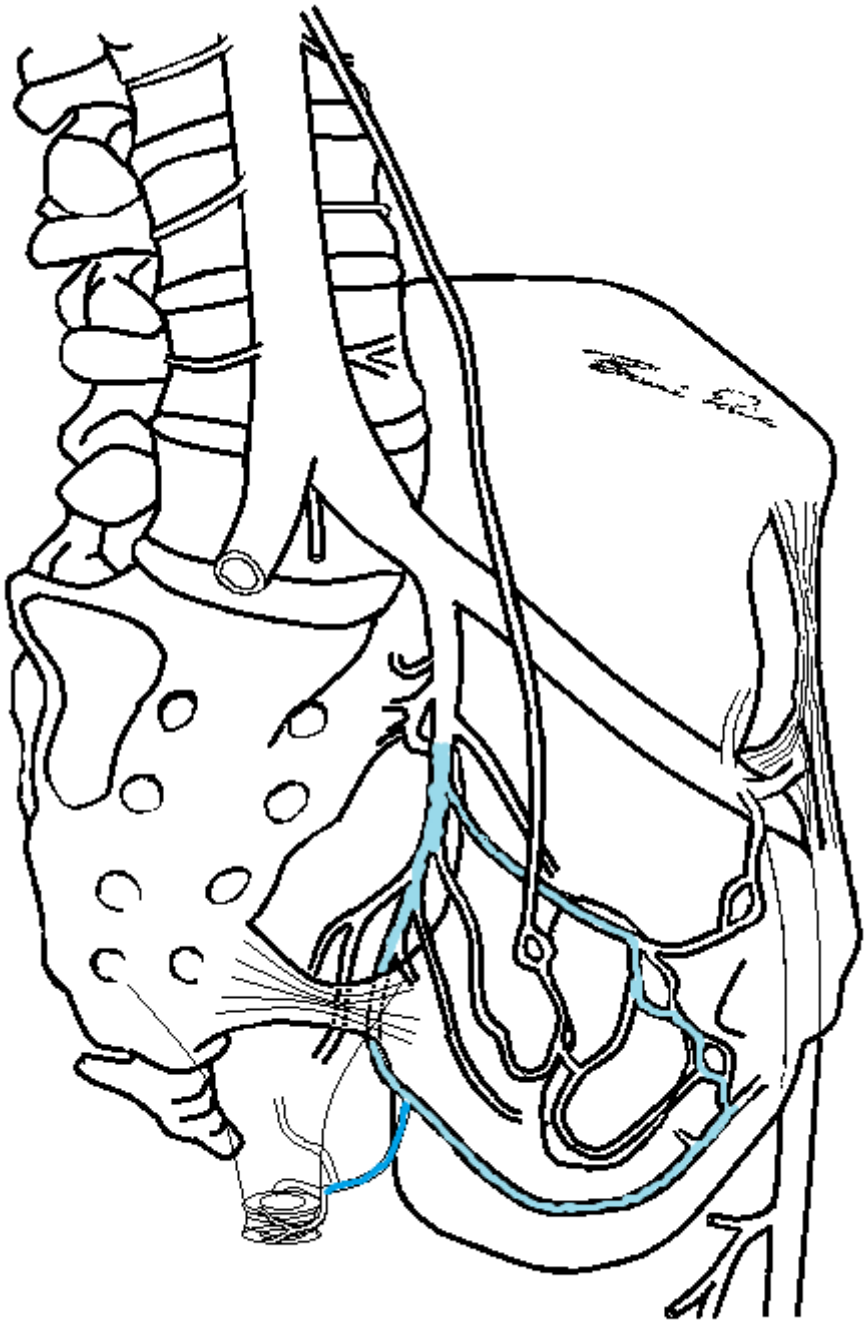

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Haemorrhoids

- Scope of the problem
- Pathophysiology
- Anatomical
- Treatment Options

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Treatment Options

- Conservative
- Office Based
  - Rubber band ligation/IR coagulation/injection schlerotherapy
- Surgical
  - Excisional Haemorrhoidectomy (Closed/open)
  - Ligasure Haemorrhoidectomy
  - DGHAL/Embolisation of Haemorrhoidal arteries
  - Stapled Haemorrhoidopexy
- Hembolize ™

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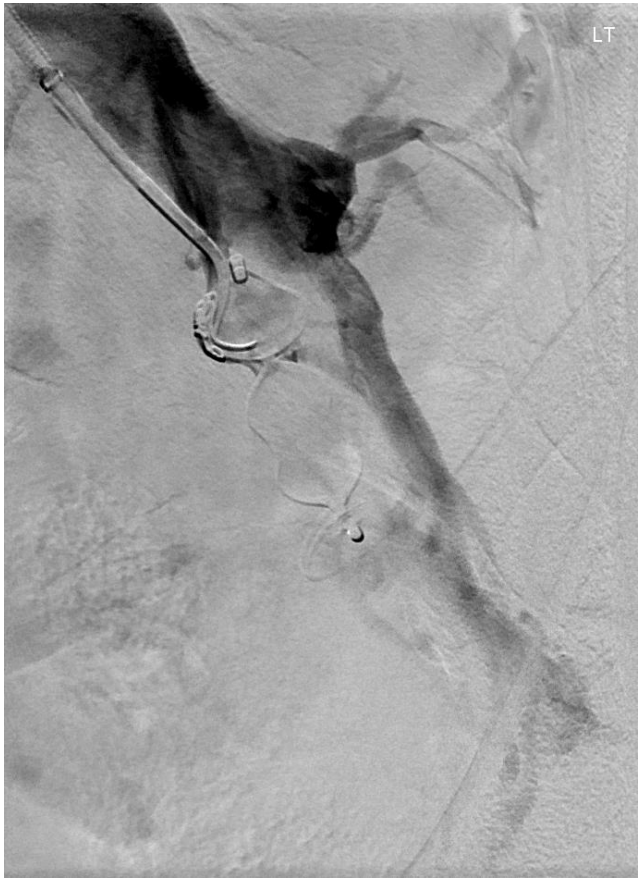
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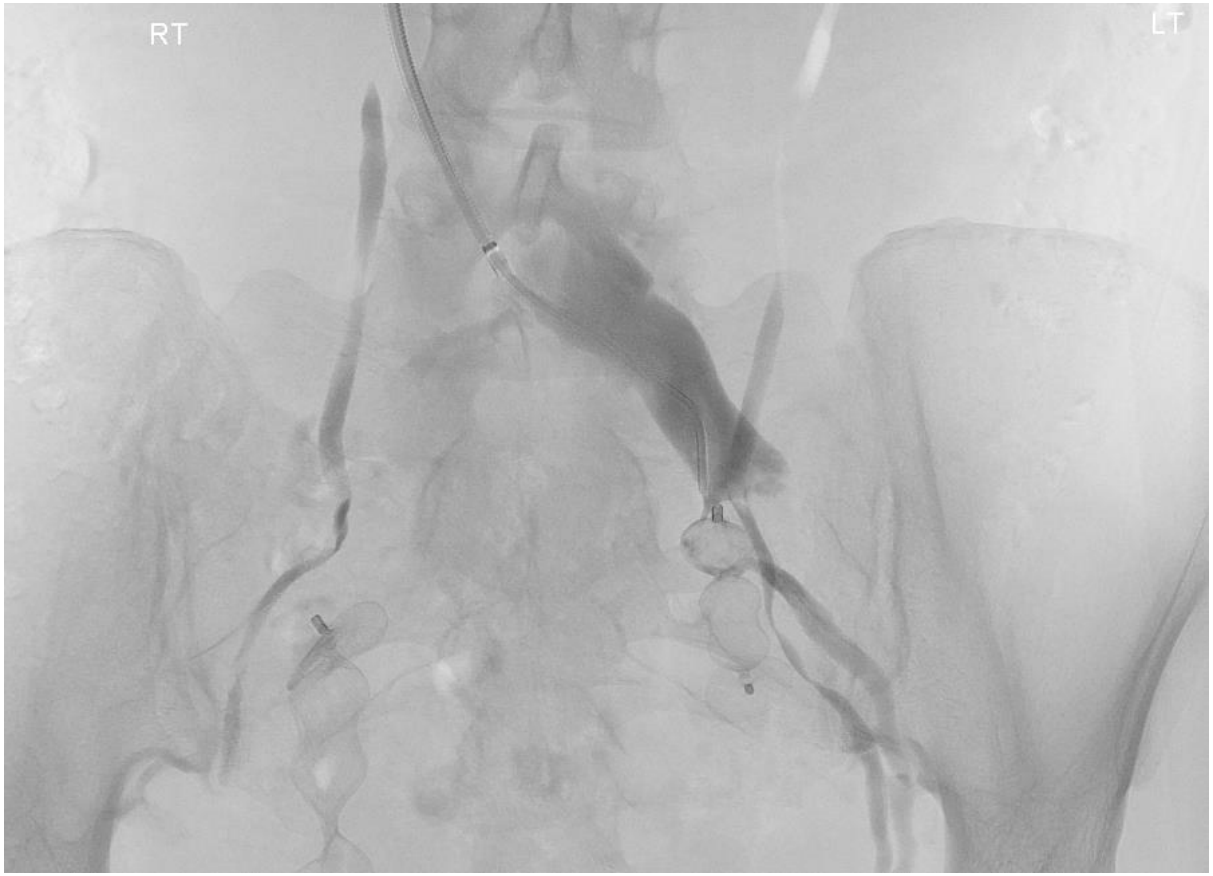
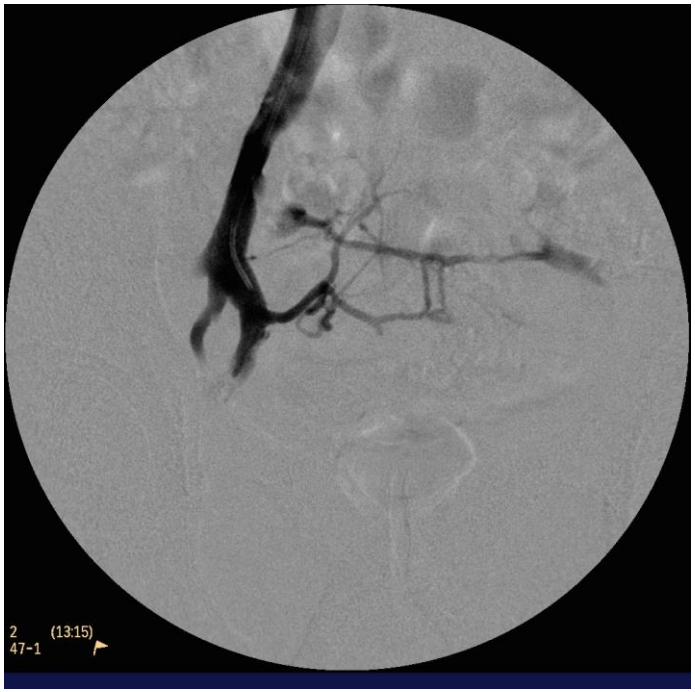

RT
LT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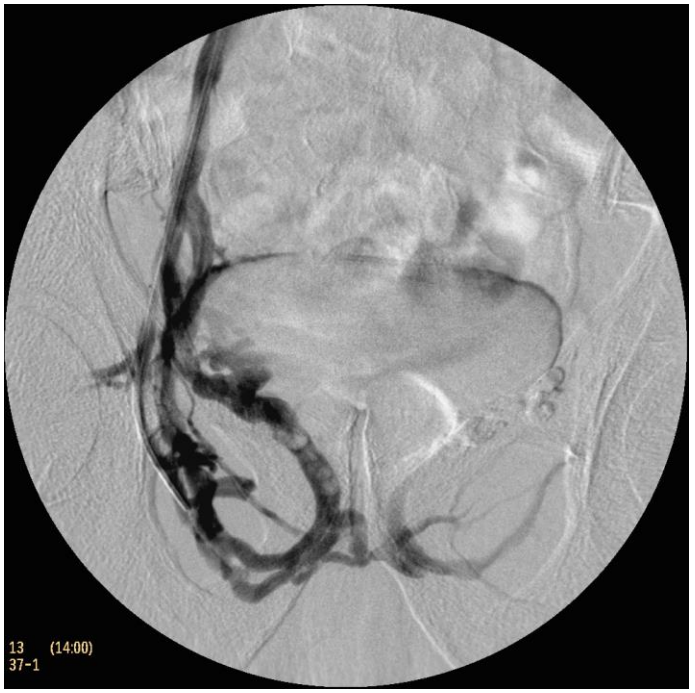
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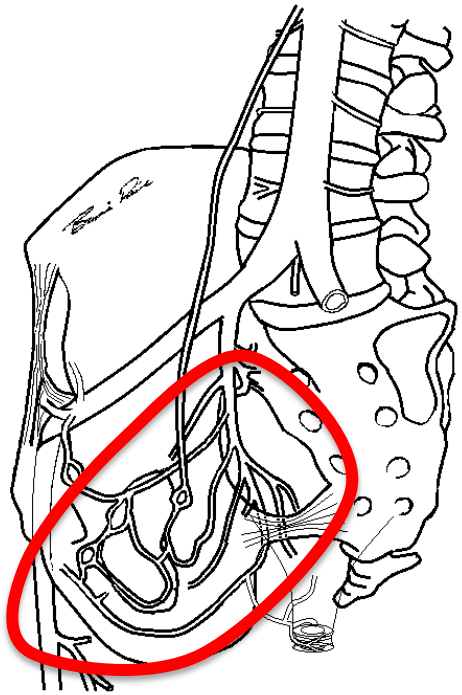

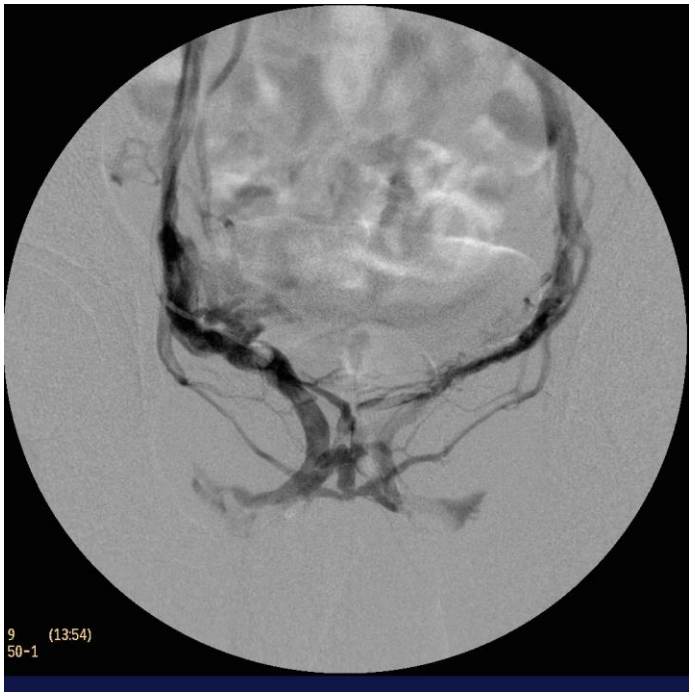
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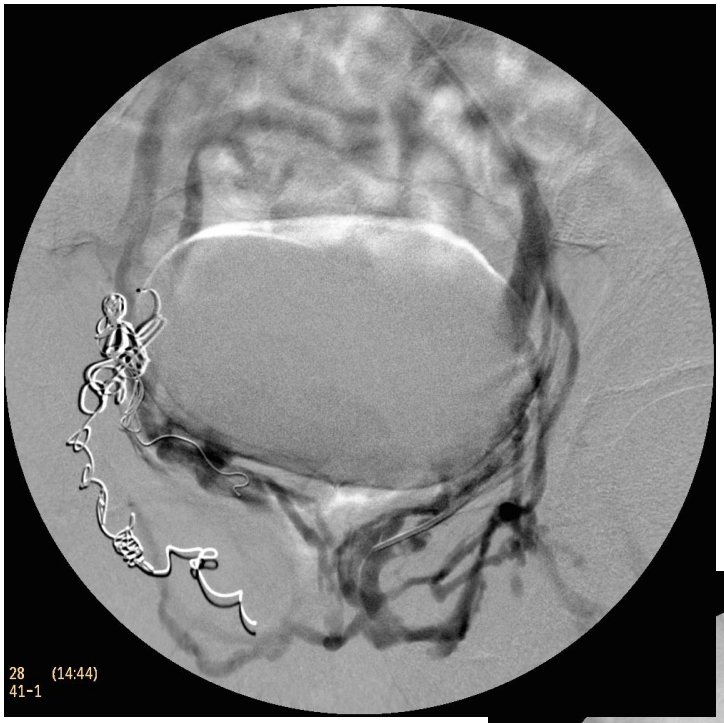
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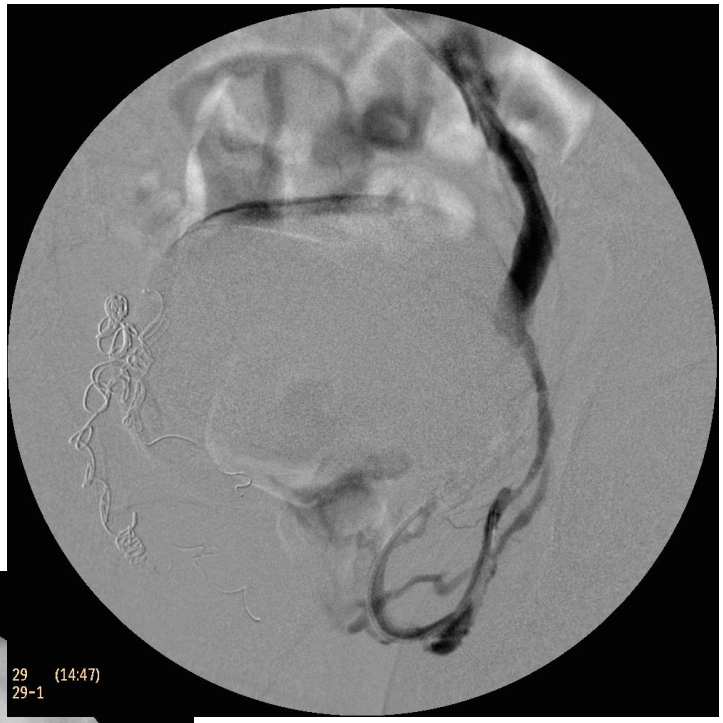
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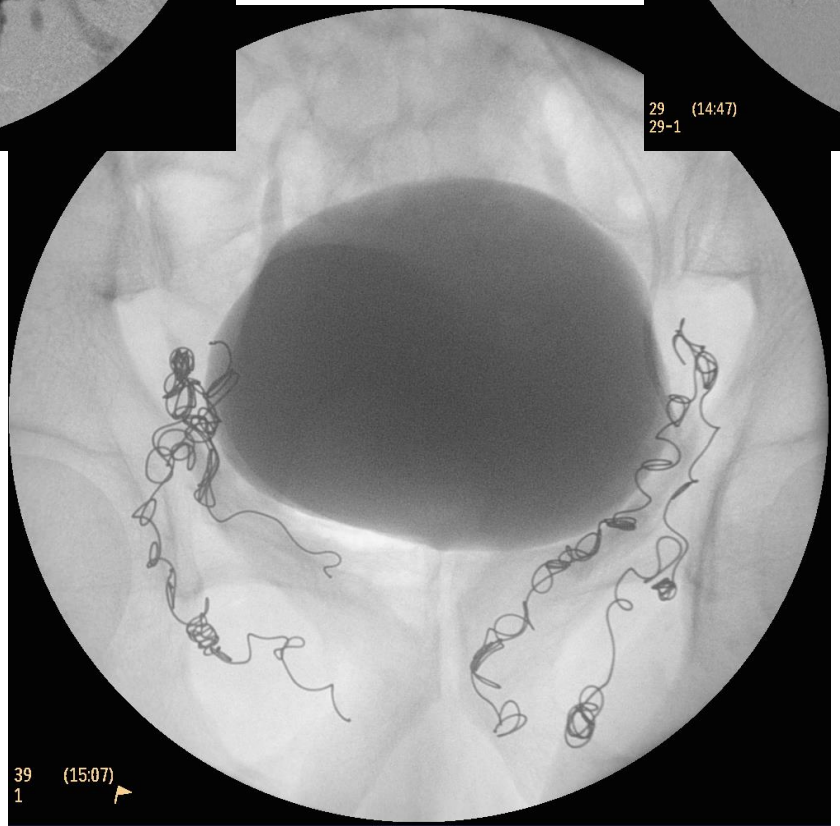
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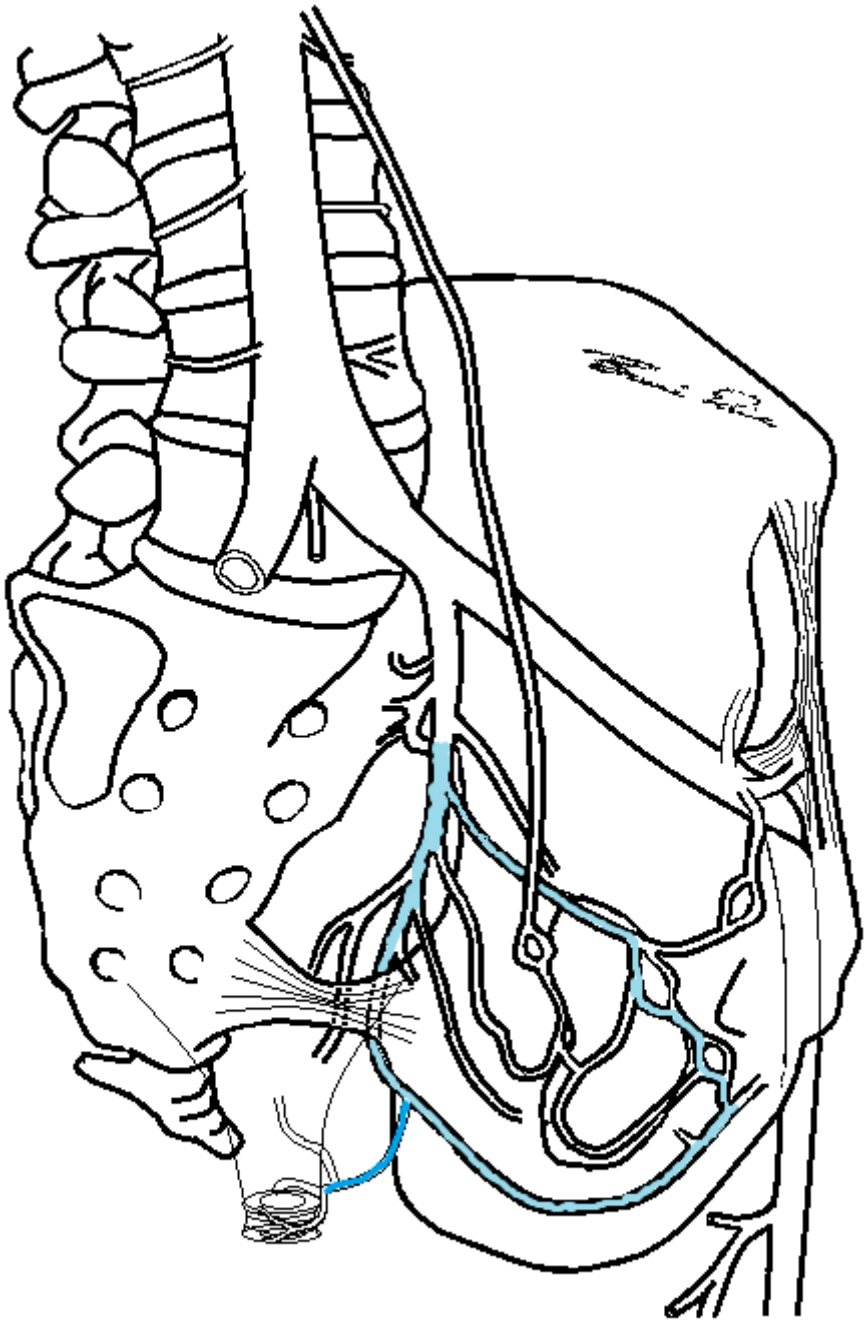

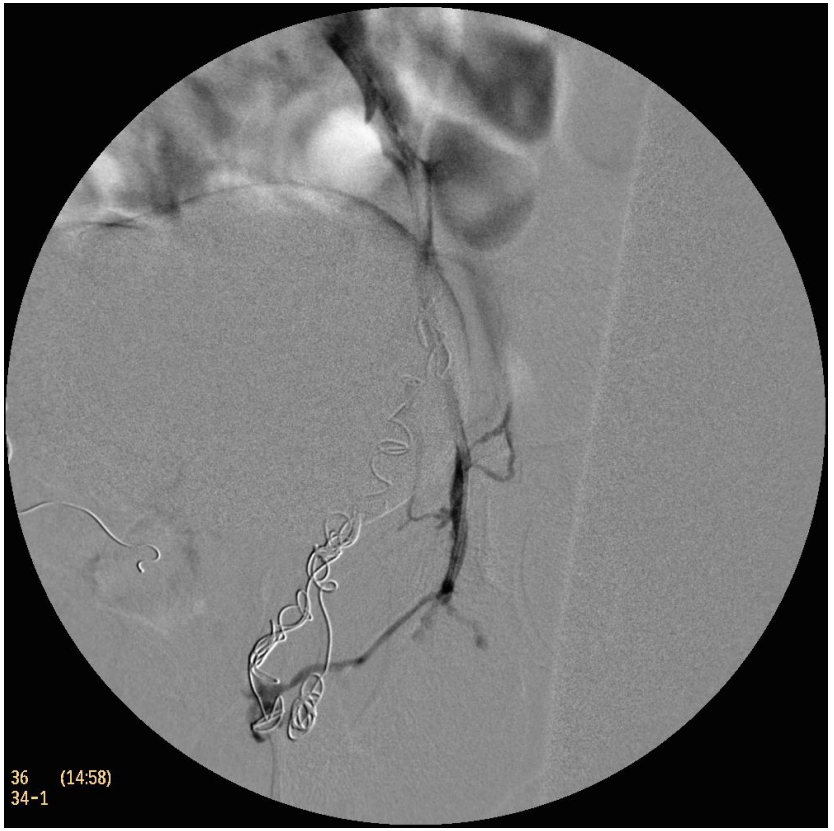
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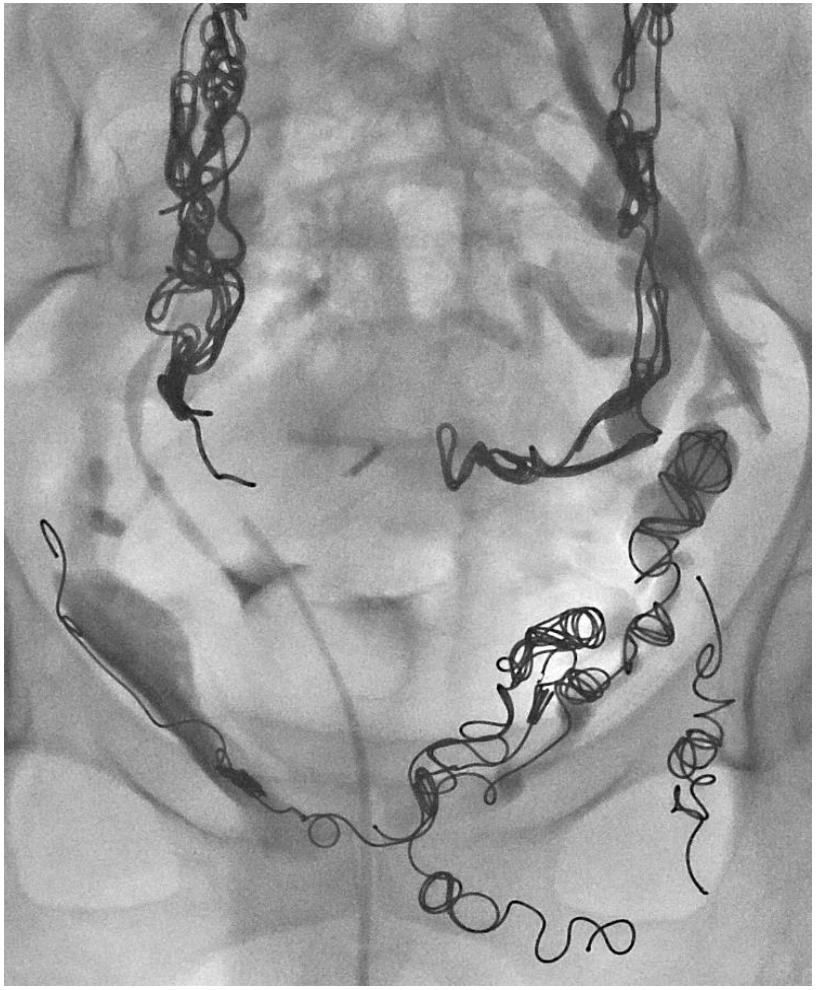

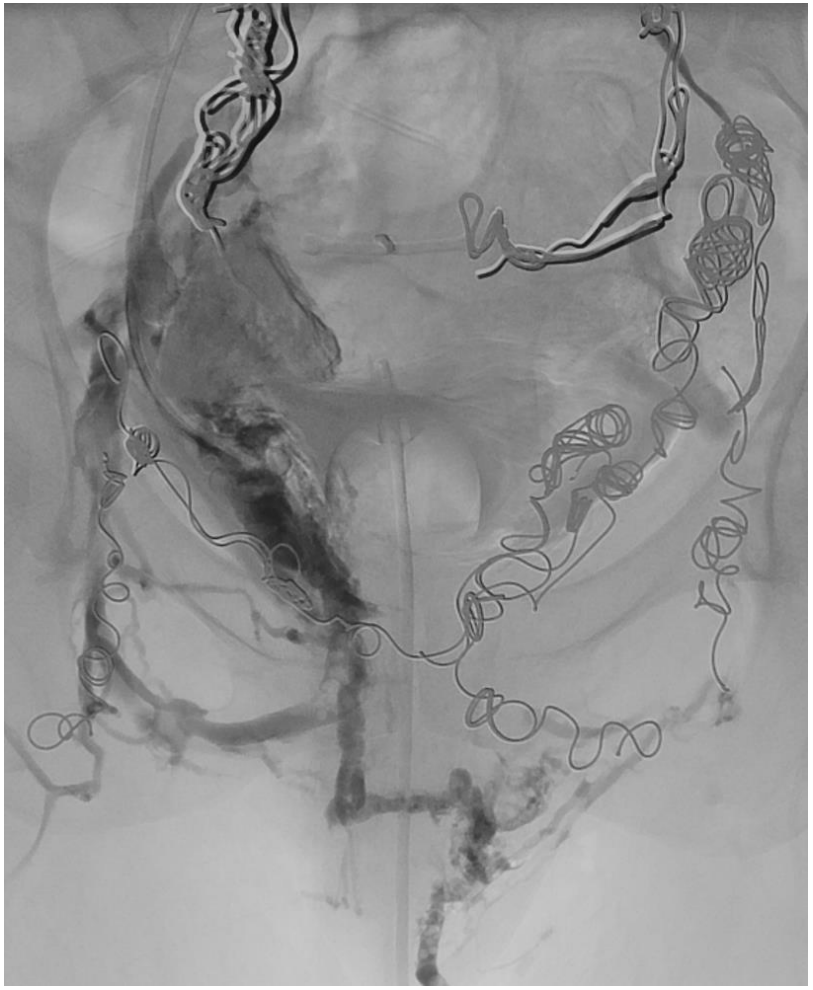

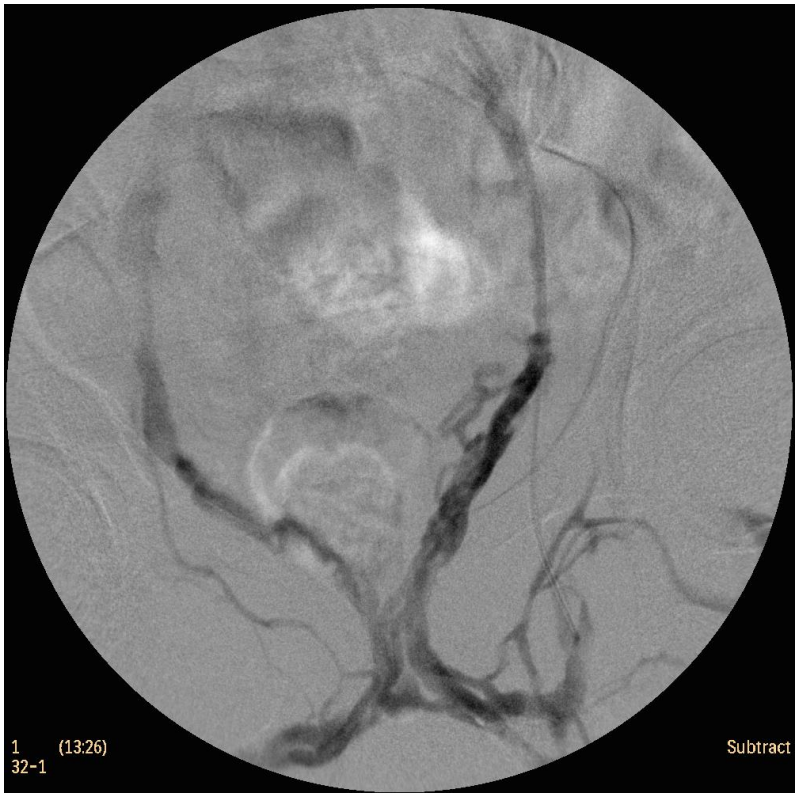
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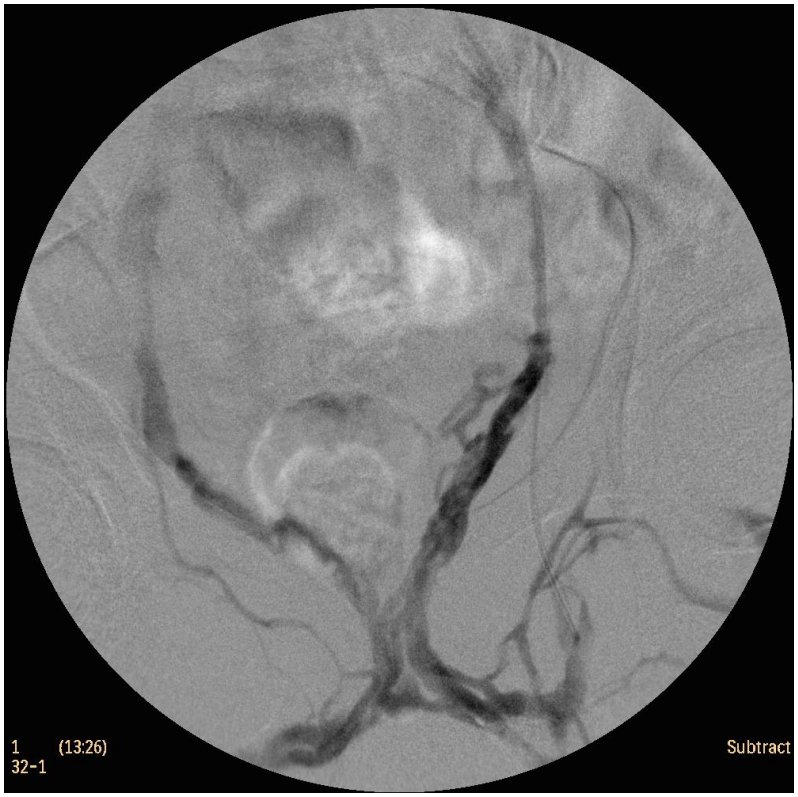
32-1
Subtract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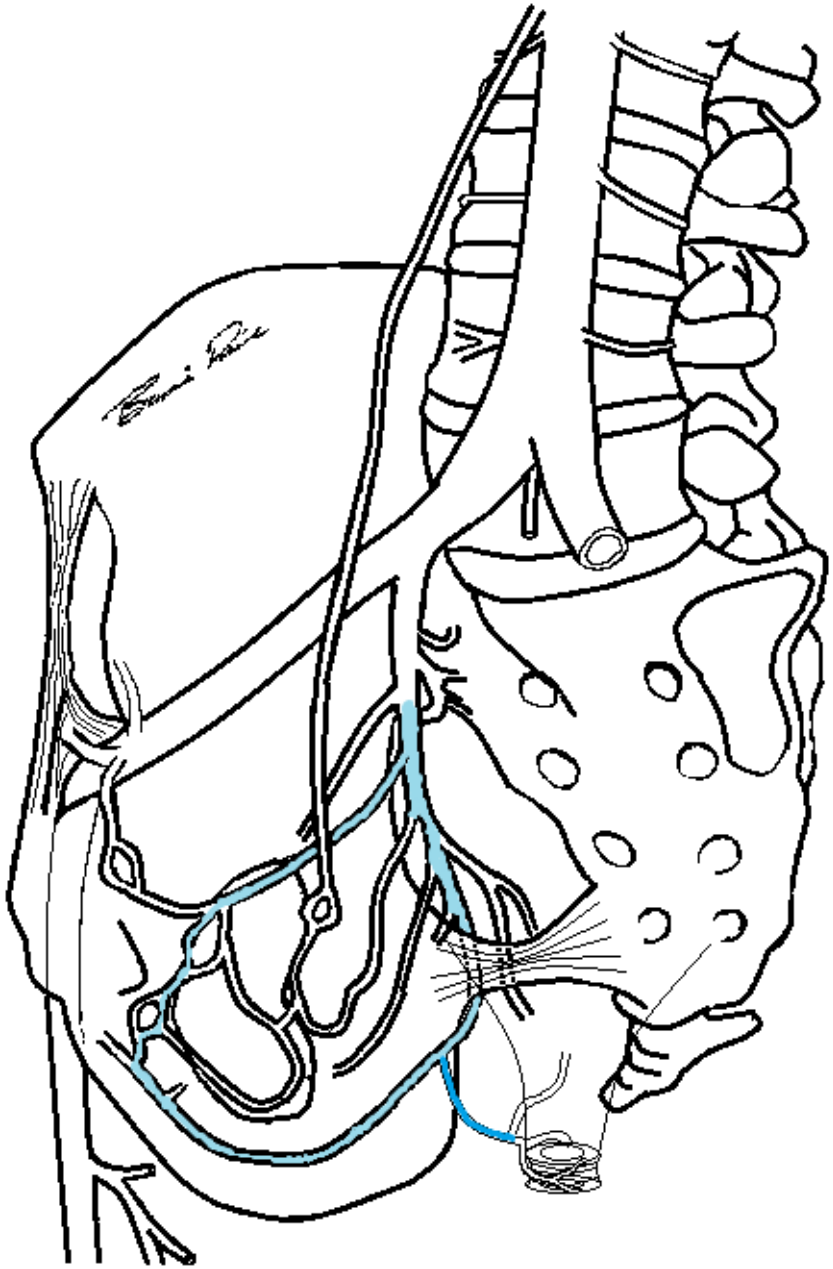

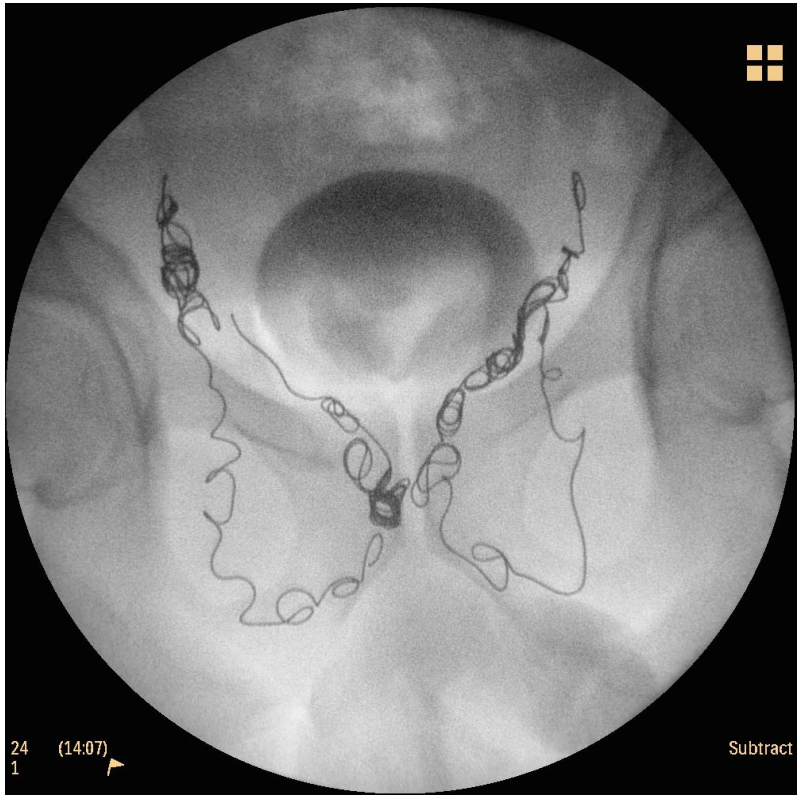
24
1
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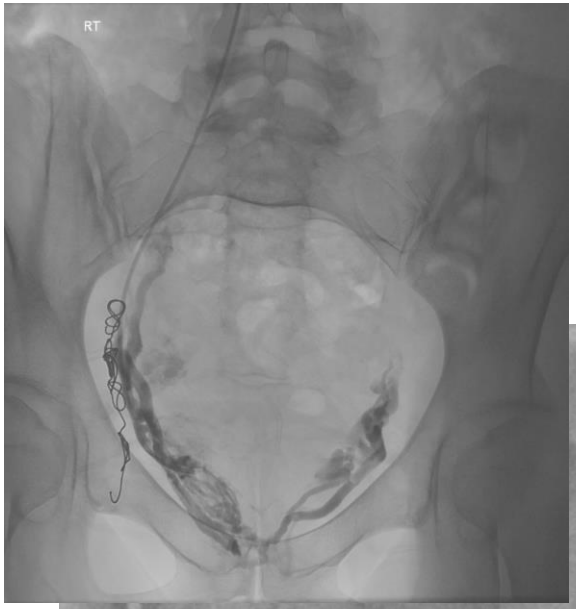
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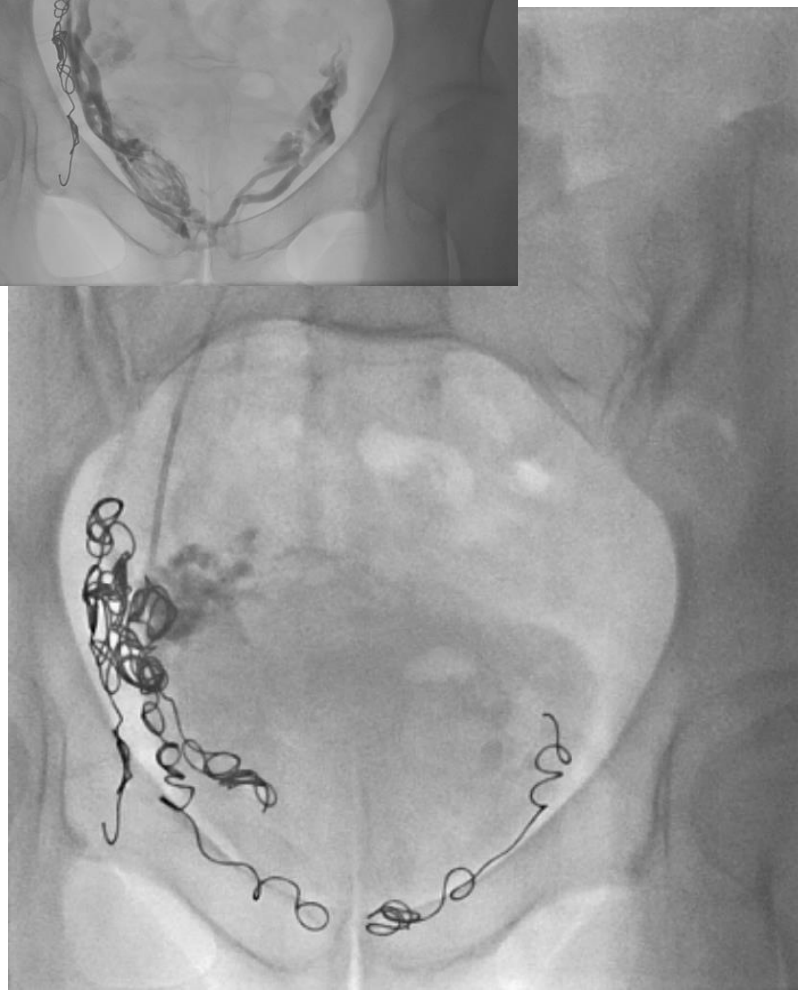

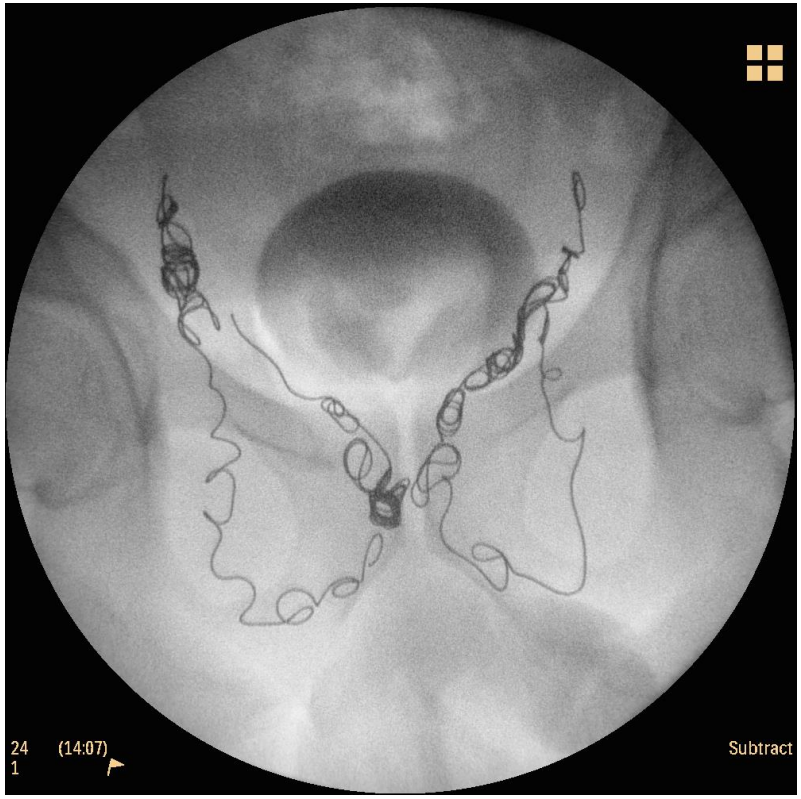
24
1
(14:07)
Subtract

- Day 1
  - Slight aching tops of legs & bottom bum!
  - No throbbing or uncomfortable after toilet
  - Blood 2nd time but not bad nor any pain, no fluid/jelly or throbbing, hem shrunk dramatically
- Day 2
  - No pain no blood straight after toilet not swollen and no clear fluid/jelly no throbbing but then slight pain 30mins after, lasted 30 mins. still same slight pain tops of legs etc but paracetamol & ibuprofen sort that
- Day 3
  - Legs feel ok this morning, no pain or throbbing, tiny bit of blood but not dripping, not swollen, no clear fluid/ jelly. Little bit of the same aching came on about lunch time.
- Day 4
  - Morning - blood but not dripping, no throbbing, no leak fluid/ jelly
  - Evening - blood congealed, a slight pain but no throbbing, no leak fluid/ jelly, Hem half the size
- Day 5,
  - Didn't go first thing, groin still aching, toilet pm, blood congealed, not dripping gone after 3 cleans, no throbbing or fluid/ jelly.
- Day 6
  - Legs still aching, begging to wonder whether I've pulled something and not to do with the op! Didn't need to go to loo today?
- Day 7
  - Toilet first thing, completely normal. No pain, blood, throbbing, fluid or jelly.
  - Happy!

Order of Embolisation

- Always attempt left internal iliac vein embolisation prior to right
  - MTS
  - Iliac Occlusive disease
  - Aberrant anatomy

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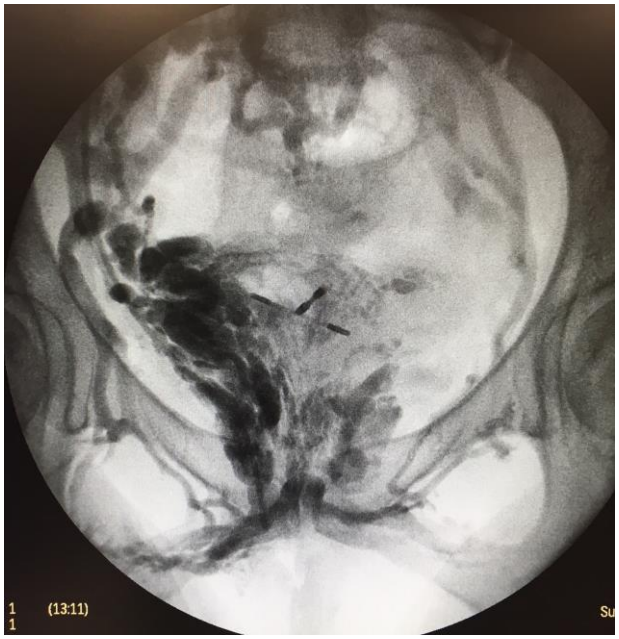
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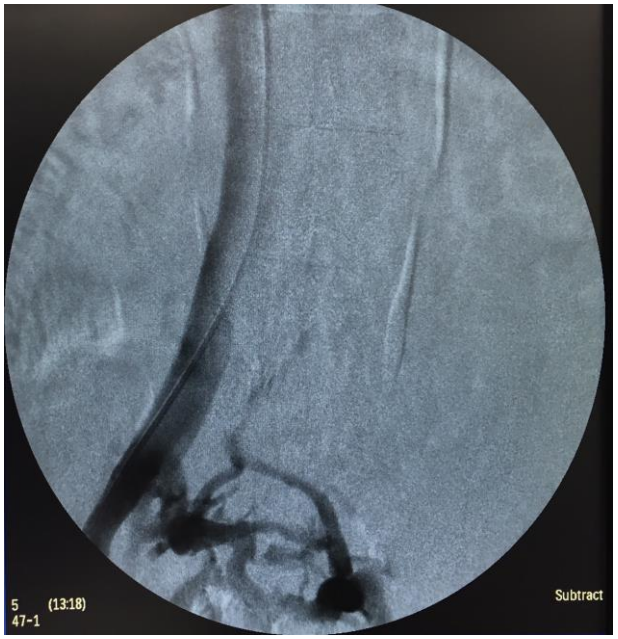
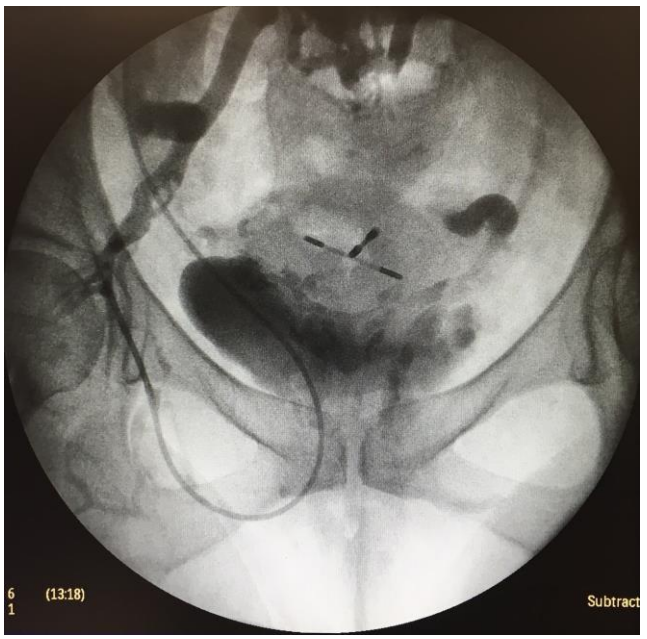

5
47-1
(13:18)
Subtract


6
1
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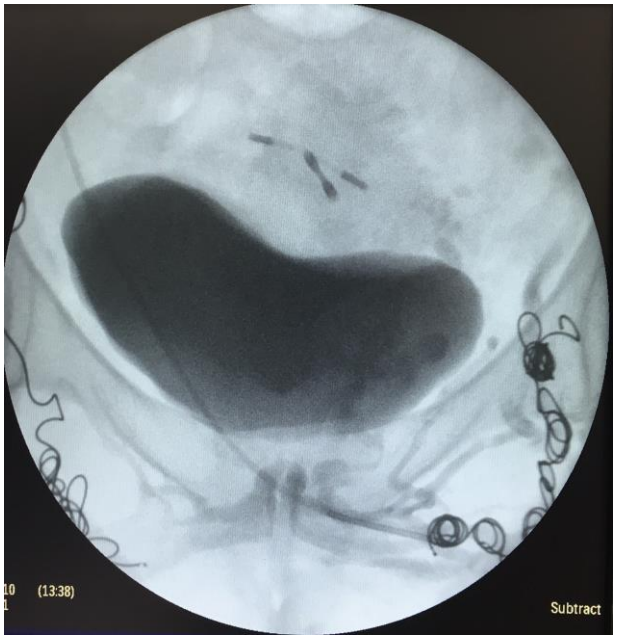
Subtract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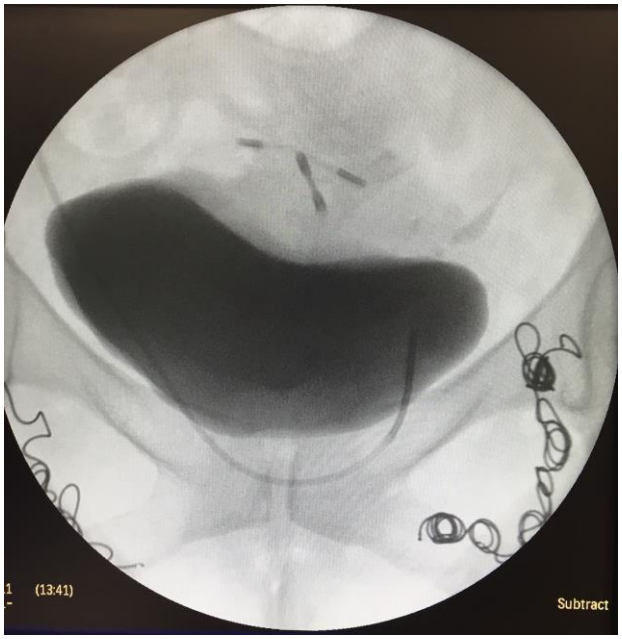
Subtract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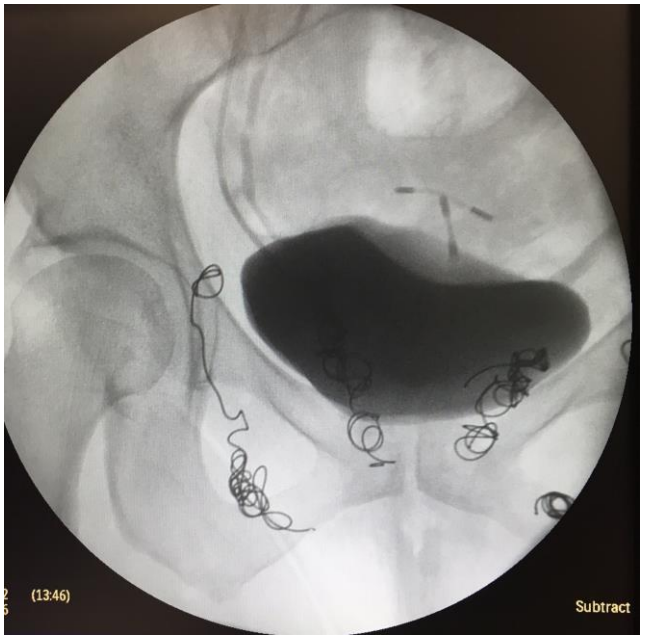
Subtract


2
(13:46)
Subtract

Clinical Hembolize™ Protocol

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Protocol

- Referral
- Surgical Assessment
- Pre-interventional Investigations
- Consent
- Tailored Pelvic Vein Embolisation
- Surgical follow up

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Have we got to the bottom of it?

- Failed previous Rx, ethics, not formal study, circumstantial evidence
- Seems to be evidence
- Pelvic Vein Embolisation for Haemorrhoidal disease is feasible, safe, and well tolerated
- While initial results show improved quality of life and a reduction in bleeding numbers are currently small.
  - Subjective evidence only
- Mid-long term safety is established although mid-long term results for treatment of haemorrhoidal disease will guide the need for further local treatments if needed
  - Compare with EVLA and phlebectomy.
    - Carradice *et al*.[7]'s 2009 study showed 66% of patients in the truncal ablation only group required secondary interventions. Monahan *et al*.[6] suggested that after RFA, 13% of patients had spontaneous varicosity regression and 41% of patients did not require further treatment.
- Reflux/Stasis
- Formalising study to assess outcome
- Will Haemorrhoidal disease be a vascular surgical issue???????????

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- Formalising study to assess outcome
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Thank You