EXTRA PELVIC ENDOMETRIOSIS

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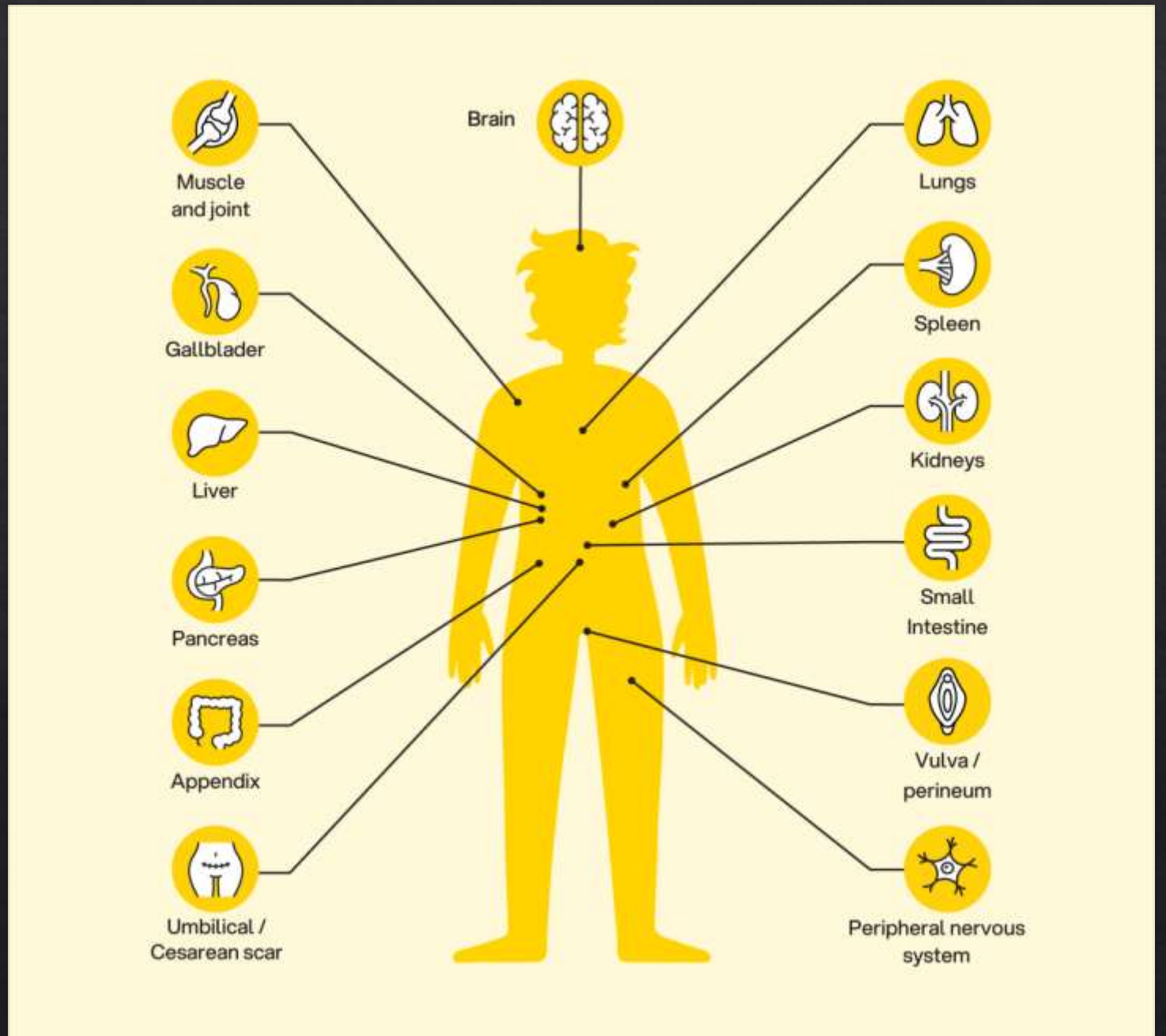
MD

EXTRA PELVIC ENDOMETRIOSIS

- Presence of endometriotic implants outside the pelvis
- Common sites:
  - Gastrointestinal tract
  - Urinary tract
  - Abdominal wall
  - Pulmonary system
  - Extremities
  - Central nervous system (CNS)

MULTI ORGAN INVOLVEMENT

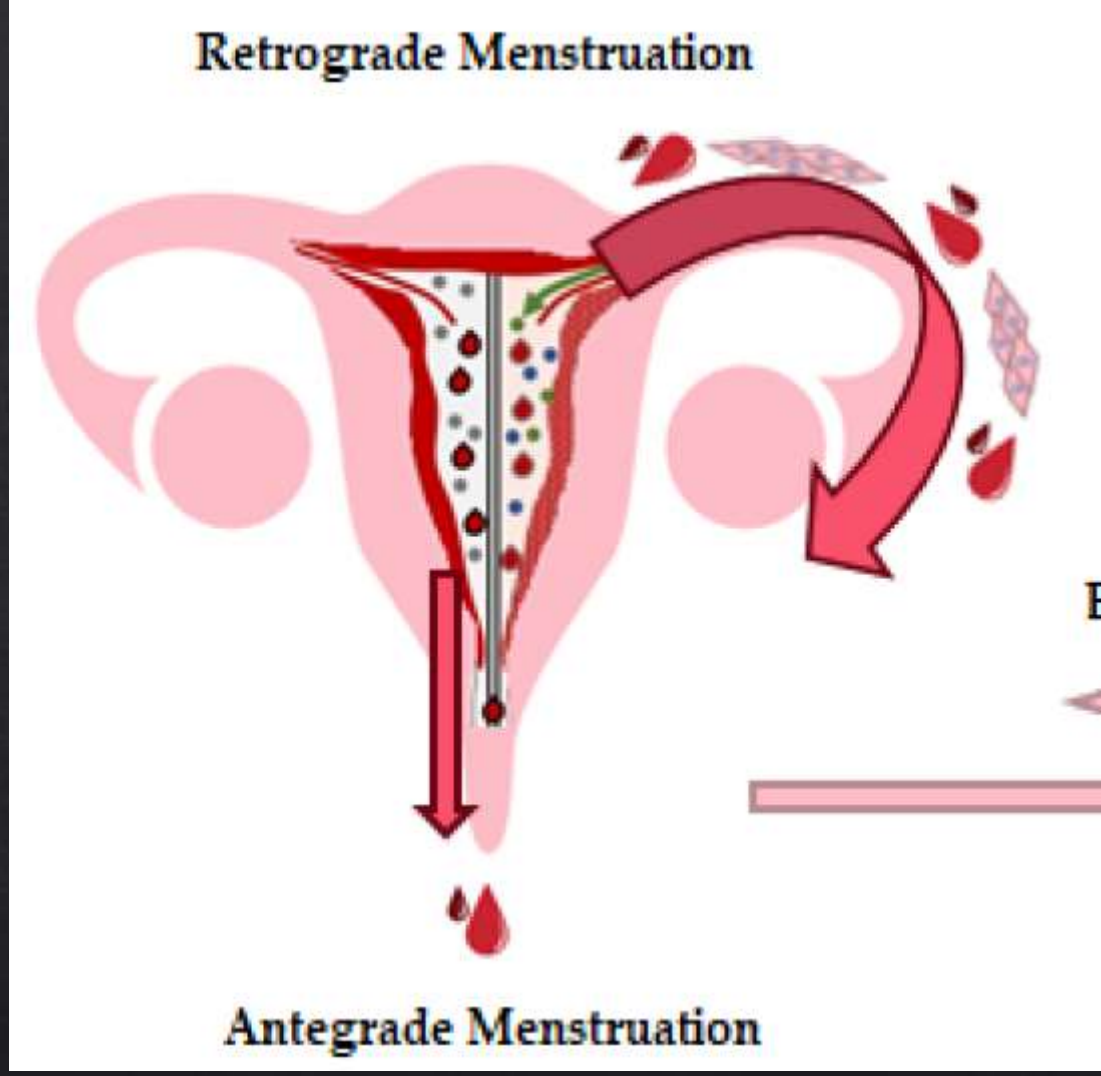


- **Prevalence**
  - True prevalence unknown
  - Considered rare

- **Age**
  - Median age at diagnosis: **34–40 years**
  - Pelvic endometriosis usually: **25–30 years**

PATHOPHYSIOLOGY

- **Retrograde menstruation**
- **Hematogenous & lymphatic spread**
- **Coelomic metaplasia**
- **Direct implantation** (e.g., surgical scars)



SIGNS & SYMPTOMS

- Pelvic pain (chronic or cyclical)
- Pain during:
  - Menstruation (dysmenorrhea)
  - Sexual intercourse (dyspareunia)
  - Bowel movements (dysphasia)
- Gastrointestinal complaints (bloating, altered bowel habits, rectal bleeding)
- Urinary issues (dysuria, hematuria, frequency)

Note: Symptoms vary with **site/organ involved**

ORGAN-SPECIFIC SYMPTOMS

Organ system	----	Typical Symptoms
GI tract	----	Cyclical rectal bleeding, pain, obstruction
Urinary tract	----	Cyclical hematuria, dysuria, flank pain
Thoracic	----	Catamenial pneumothorax, hemoptysis, chest pain
Skin	----	Cyclical nodules in scars, pain, swelling
Nervous sys.	----	Seizures, cyclical headache

CLASSIFICATION – MARKHAM'S SCHEME

- **I** – Gastrointestinal tract
- **U** – Urinary tract
- **L** – Thoracic cavity (lung, pleura)
- **O** – Other sites (skin, nervous system)

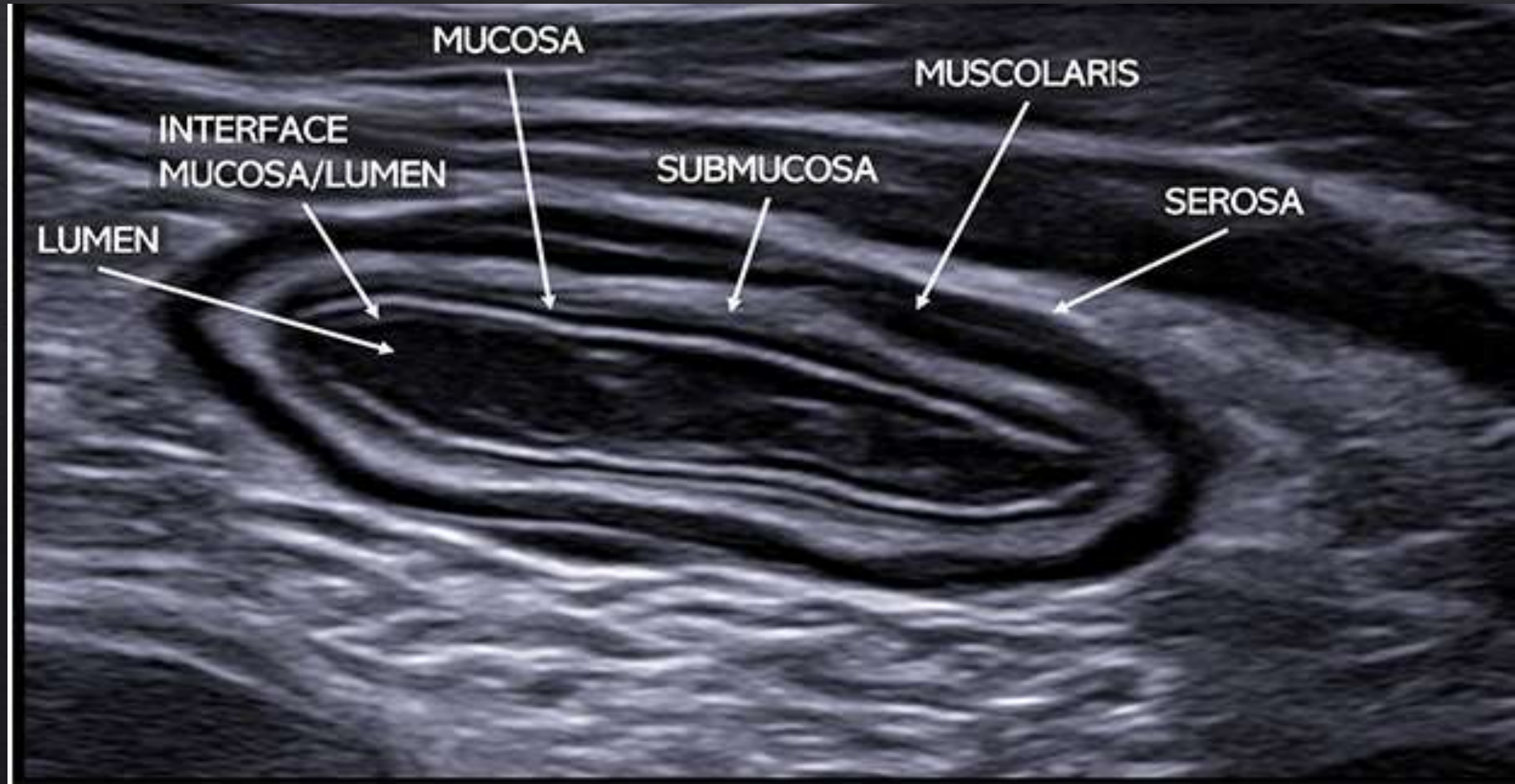
DIAGNOSIS MODALITIES

- **Ultrasound (USG)**
  - First-line tool
  - High-frequency probes → better resolution for superficial lesions
  - Useful for scar/abdominal wall & bladder lesions
- **CT with Contrast**
  - Helps assess deep lesions & organ involvement
  - Detects complications (obstruction, hydronephrosis, bowel thickening)
- **MRI**
  - Most sensitive modality
  - Excellent soft-tissue characterization
  - Defines extent, depth & organ infiltration
  - Preferred for pre-surgical mapping

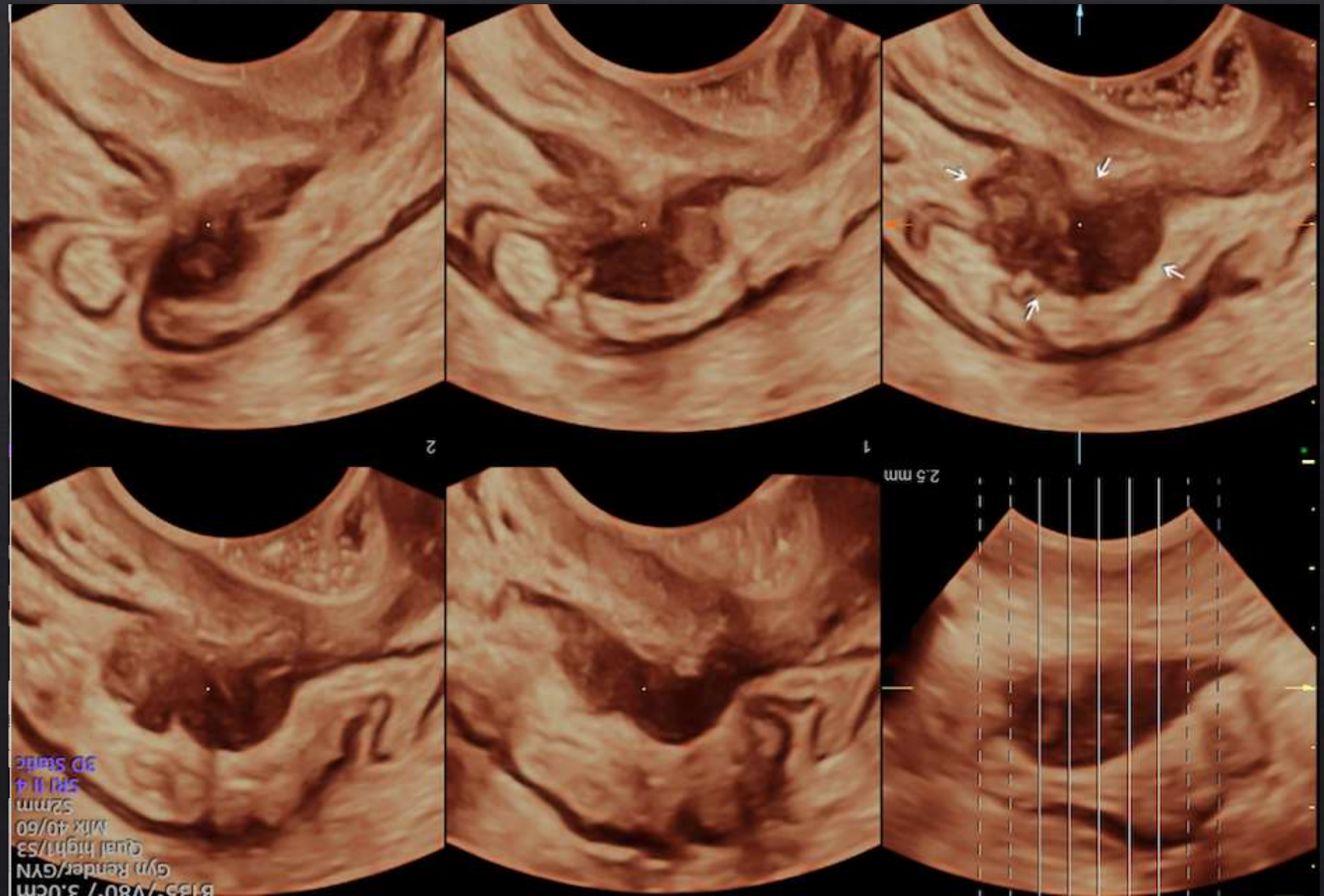
GASTROINTESTINAL TRACT INVOLVEMENT

- **Most common site** of extra pelvic endometriosis
  - Explained by **retrograde menstruation** → proximity to fallopian tubes
- **Rectum & sigmoid colon**
  - Most frequent sites
  - Involves **serosa & muscularis propria**
- **Terminal ileum**
  - Preferred small bowel site
  - Usually limited to **serosal involvement**
- Other GI sites → **rare**

NORMAL BOWEL LAYERS



DEEP ENDOMETRIOSIS



IMAGING IN GASTROINTESTINAL ENDOMETRIOSIS

- **Imaging in Gastrointestinal Endometriosis**
  - **Enteroclysis** → Preferred for small intestine
    - Defines **site & extent** of lesions
  - **Ultrasound**
    - Useful for **rectosigmoid lesion size & location**
    - TVS is now first line in expert hands
  - **CT Abdomen & Pelvis**
    - Can detect lesions but **low specificity**
    - Similar limitations as US
  - **MRI**
    - **Superior modality**
    - Best for diagnosis & follow-up
    - Excellent soft tissue contrast → maps pelvic & bowel involvement

COLONOSCOPY IN ENDOMETRIOSIS

- **Limited role** in diagnosis
- Lesions are **extra mucosal** → usually not visible on mucosal surface
- May only show **non-specific findings** (extrinsic compression, strictures)
- Mainly used to **exclude other pathologies** (IBD, malignancy)

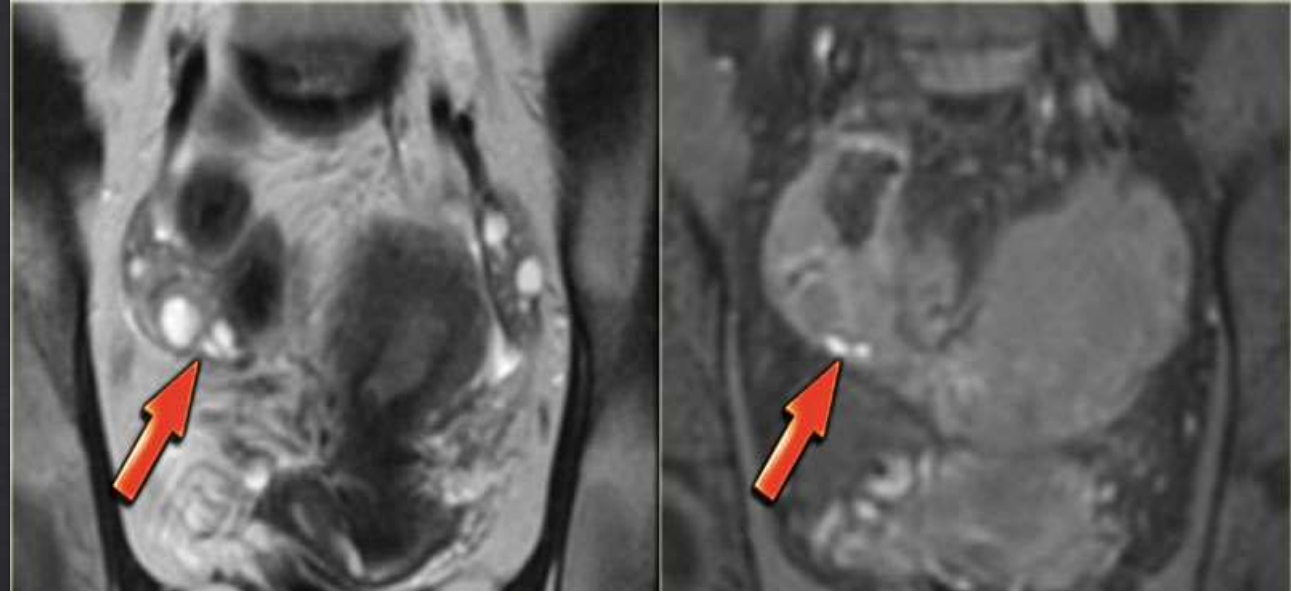
SUPERFICIAL ENDOMETRIOSIS (SAMPSON'S SYNDROME)

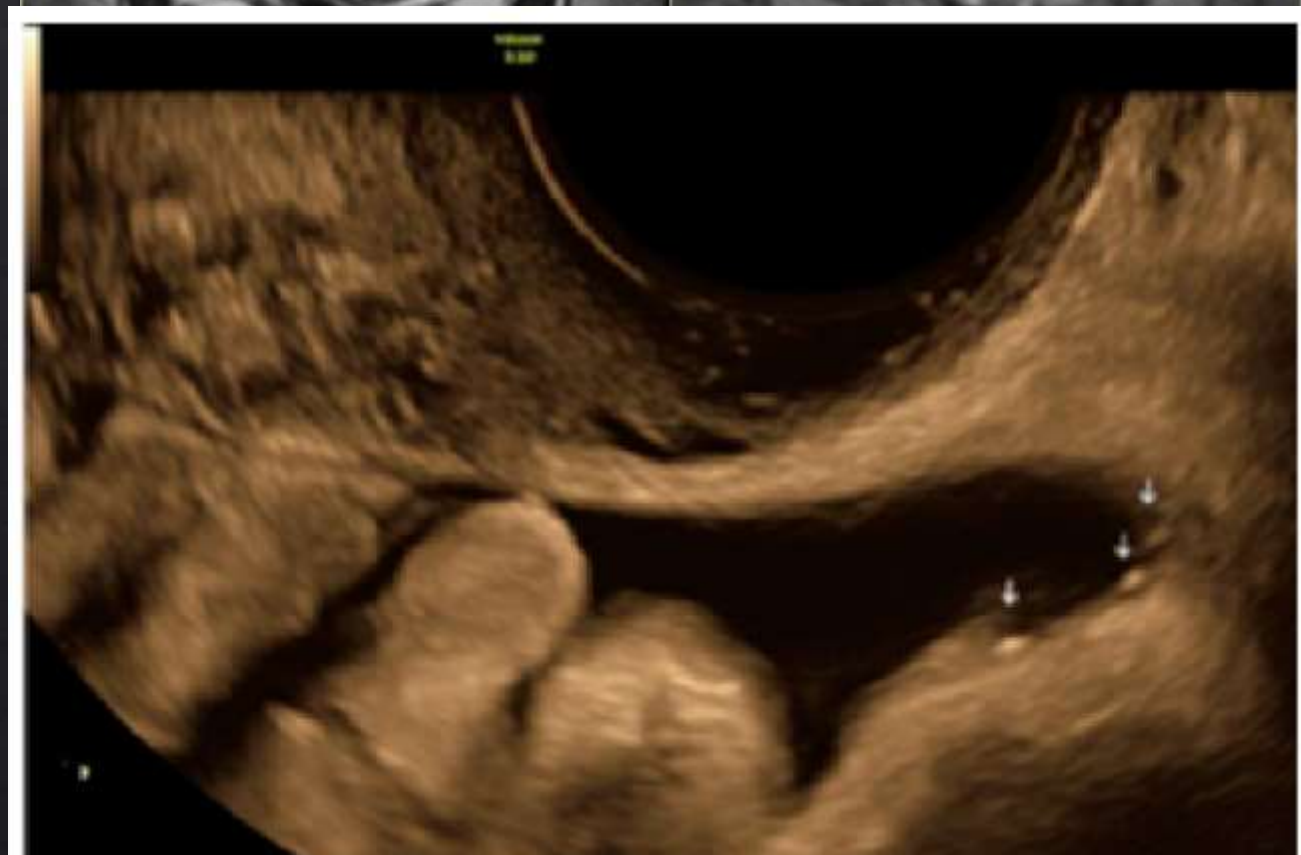
Definition: Superficial plaques across peritoneum, ovaries, uterine ligaments

Symptoms: Usually mild; minimal structural changes

Laparoscopy findings:

- "Powder-burn" or "gunshot" lesions
- Superficial scattered implants



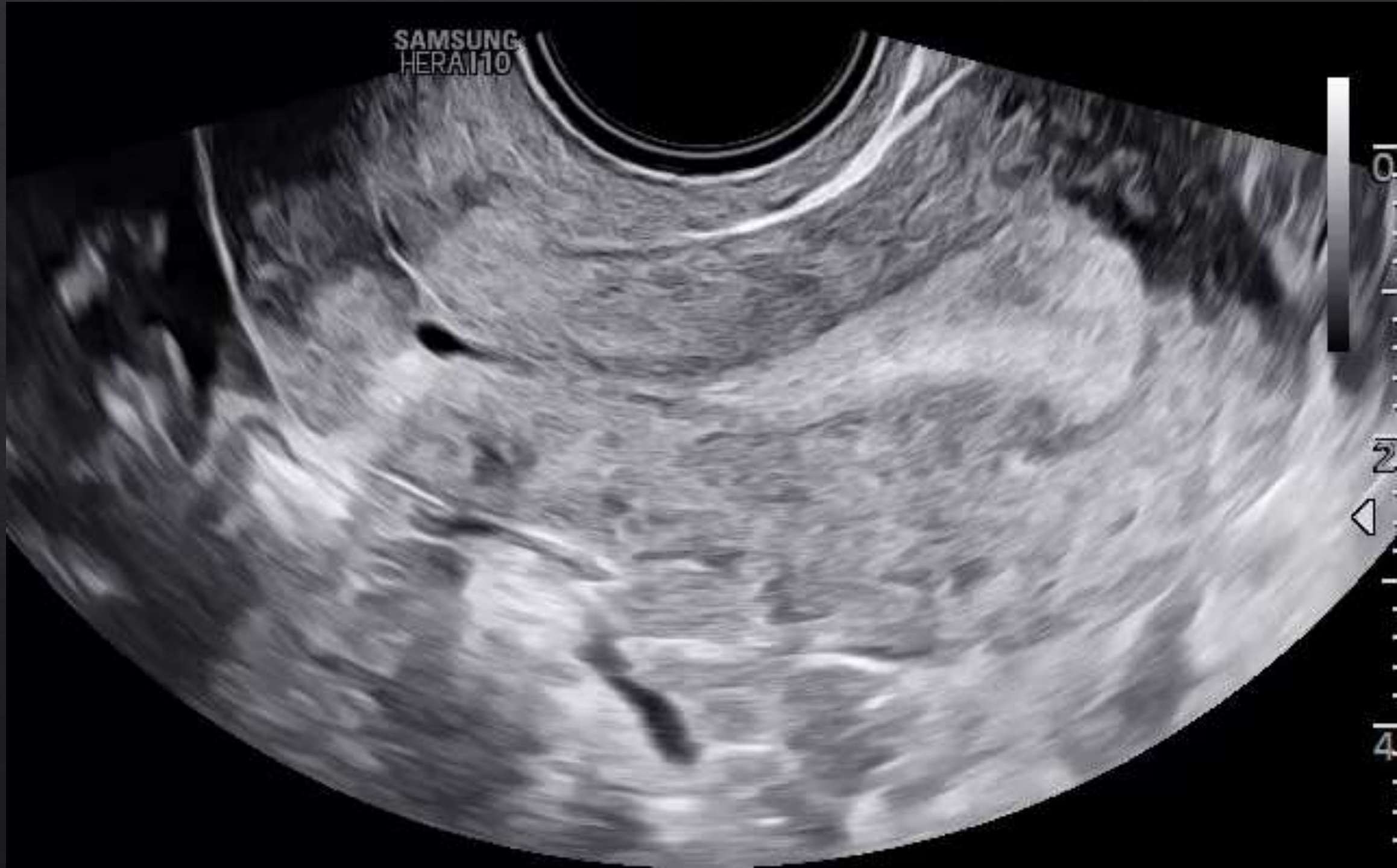


DEEPLY INFILTRATING ENDOMETRIOSIS (DIE)

- **Definition:** Endometrial tissue invading **>5 mm** beneath peritoneum
- **Common sites:** Bowel, bladder, uterosacral ligaments, rectovaginal septum
- **Clinical significance:**
  - Causes **severe pain** (dysphasia, dysuria, deep dyspareunia)
  - Strongly associated with **pelvic adhesions & organ dysfunction**
- **Diagnosis:** Best detected with Dynamic ultrasound, **MRI** or laparoscopy

IDENTIFYING SOFT MARKERS

- Site-specific tenderness on probe pressure
- Fixed ovaries → suggest adhesions/superficial disease
- **Assessing Pouch of Douglas (POD)**
- **Sliding sign** (TVS) → checks if POD is free or obliterated
- **Targeting DIE Nodules**
- Careful evaluation of anterior & posterior compartments
- Detects **deeply infiltrating lesions** (bowel, bladder, rectovaginal septum)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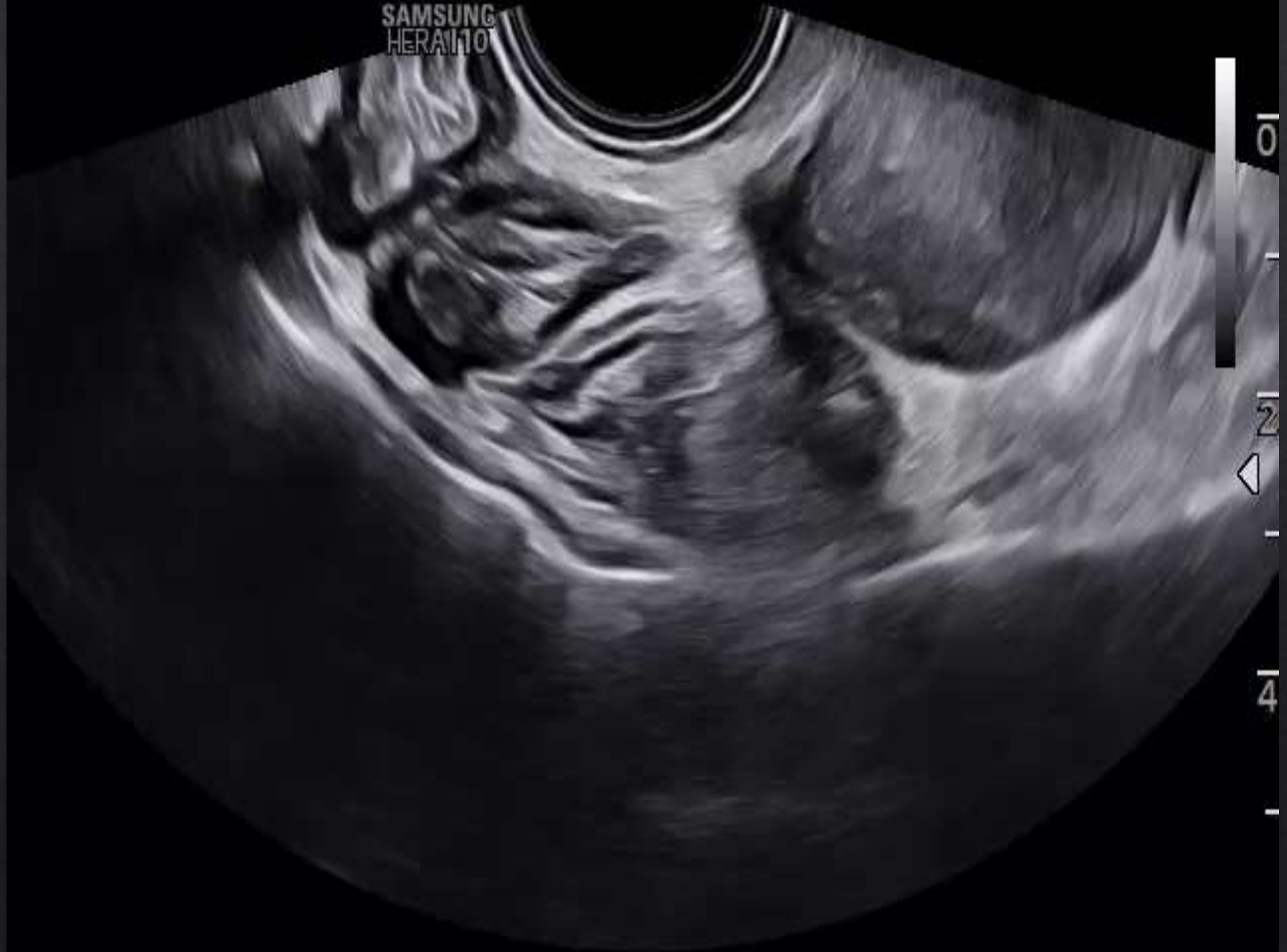
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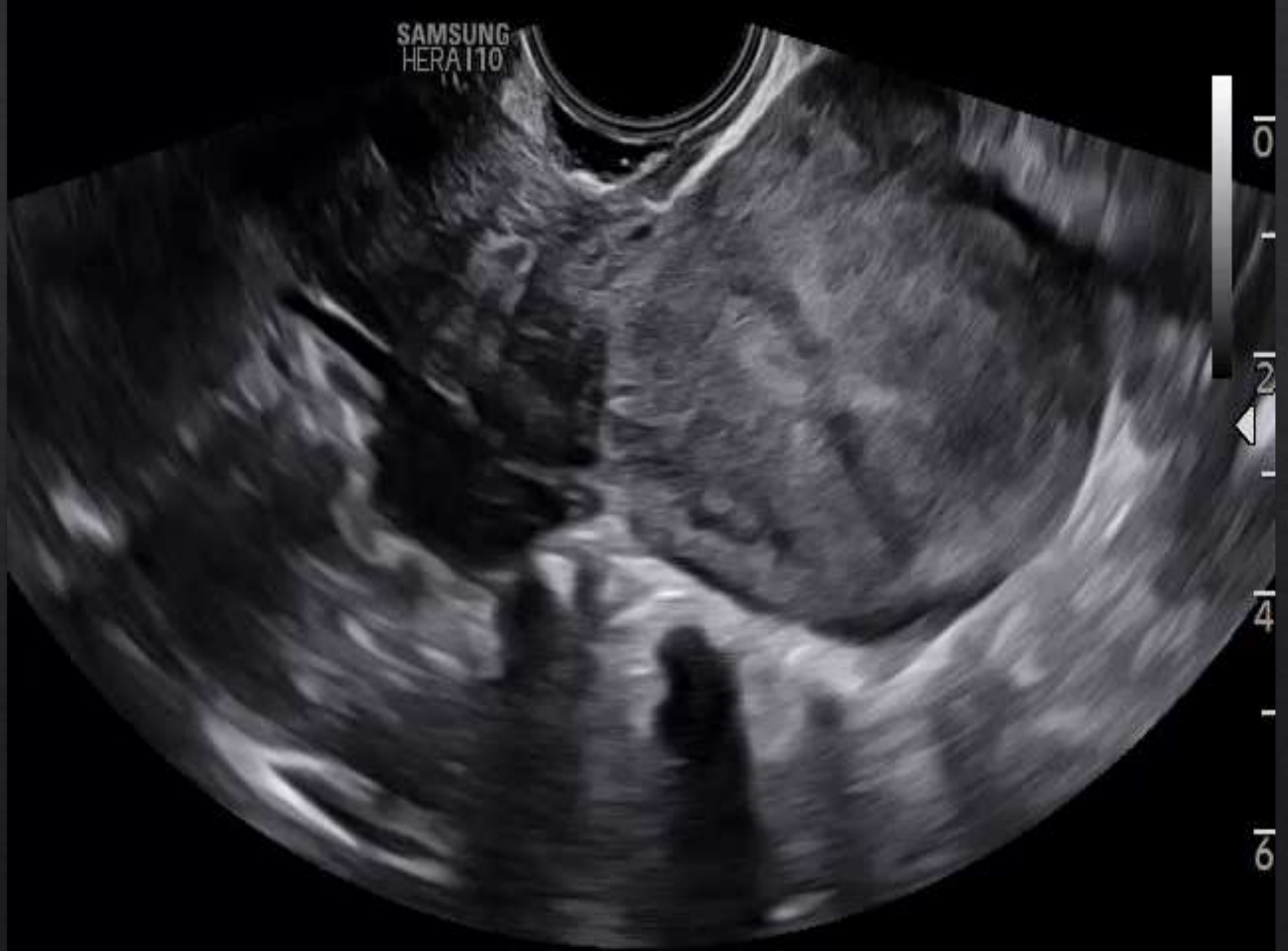
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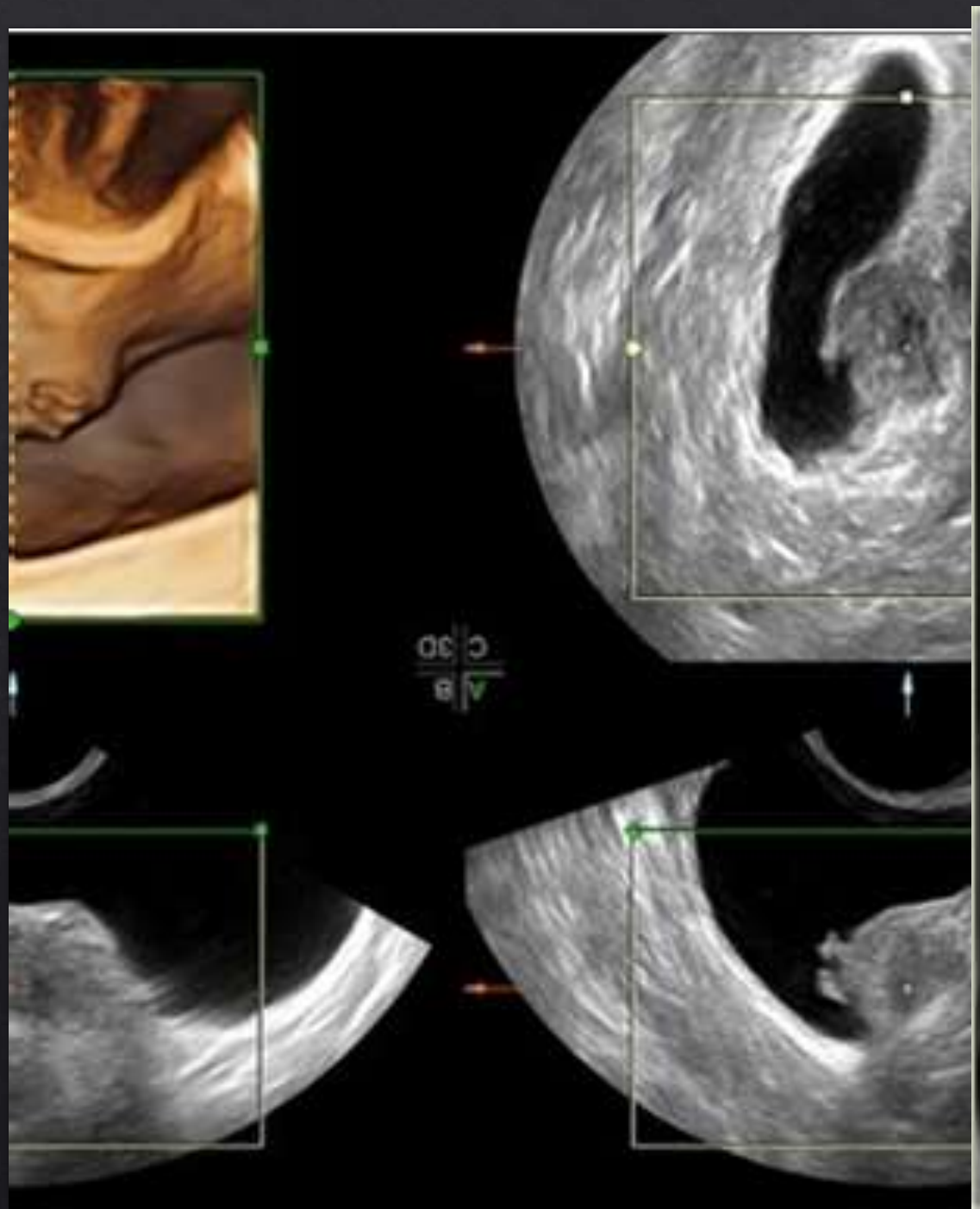
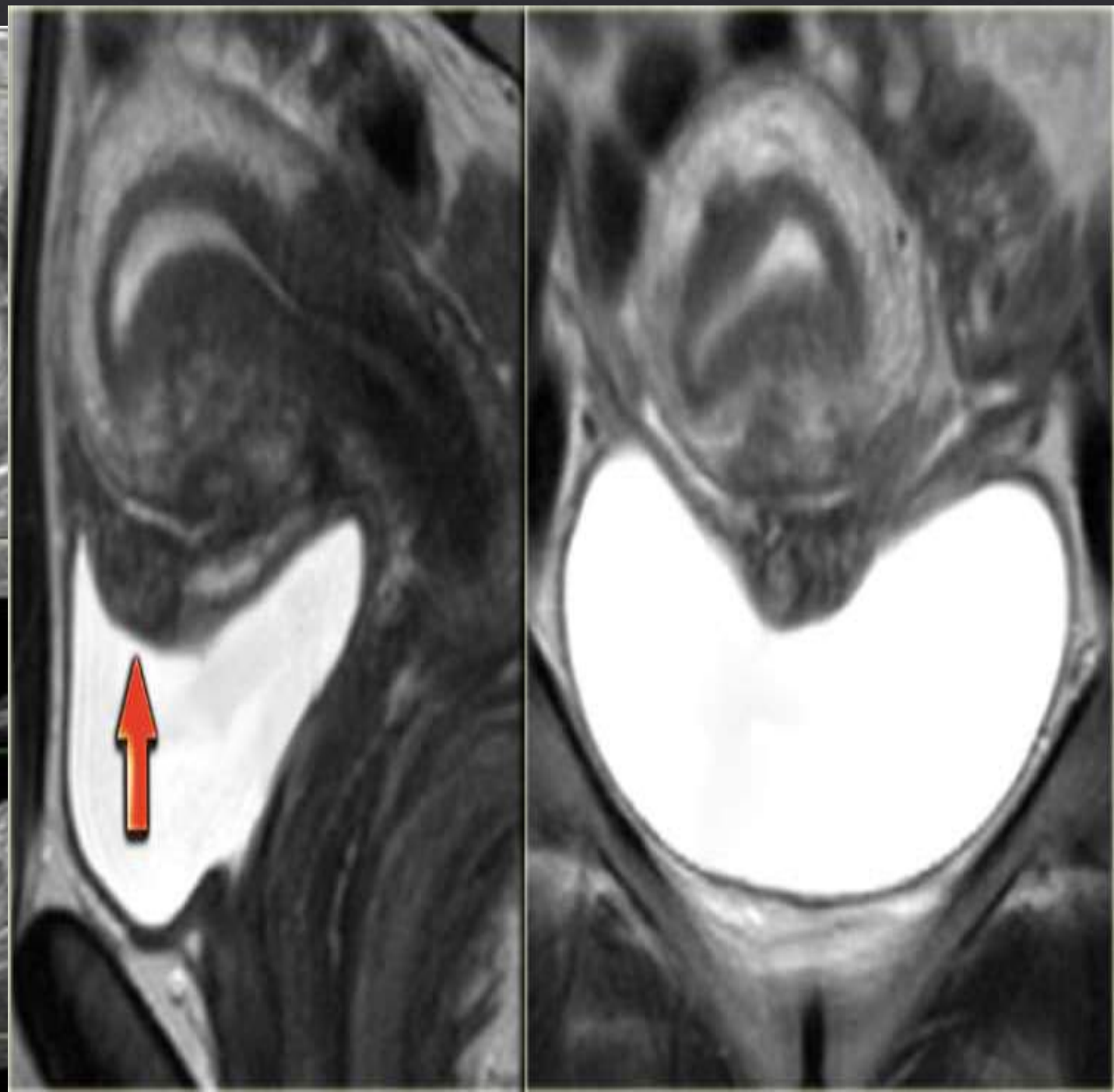
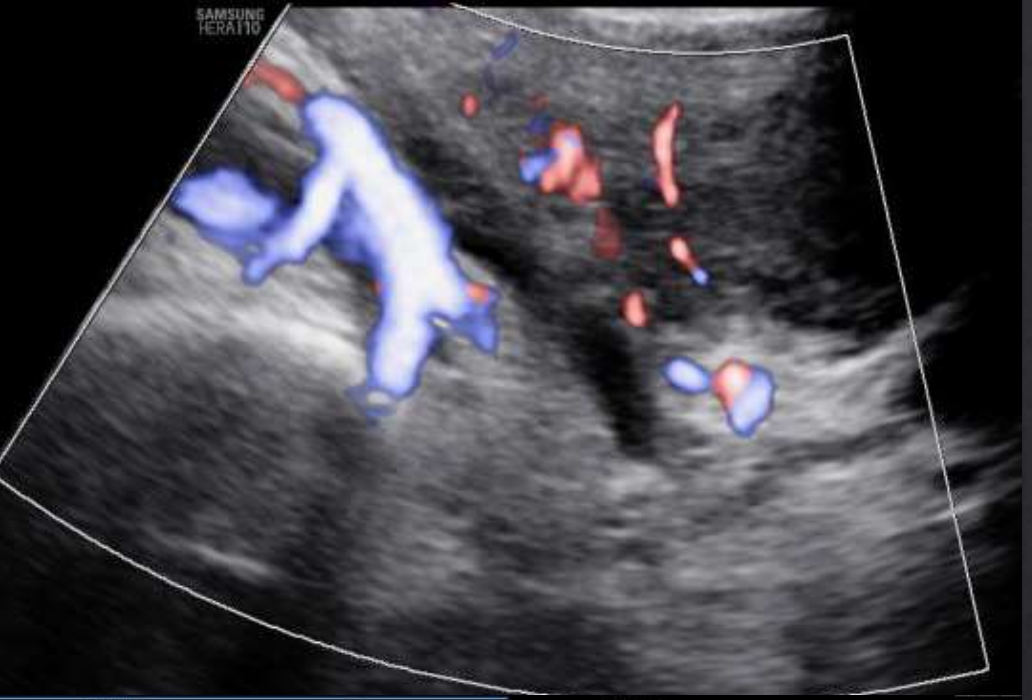
URINARY TRACT ENDOMETRIOSIS (UTE)

- **Slide – Urinary Tract Endometriosis (UTE)**
- **Less common** than gastrointestinal involvement
- **Sites:** Bladder (most frequent), ureters, kidneys (rare)
- **Risk factors:**
  - ~50% of bladder endometriosis cases → history of **pelvic surgery**
  - Prior **extensive pelvic endometriosis** requiring surgery
  - **Cesarean section** → increased risk, even without pelvic disease
- Bladder → dysuria, frequency, cyclic hematuria
- Ureter → often **silent**, risk of **hydronephrosis & renal damage**



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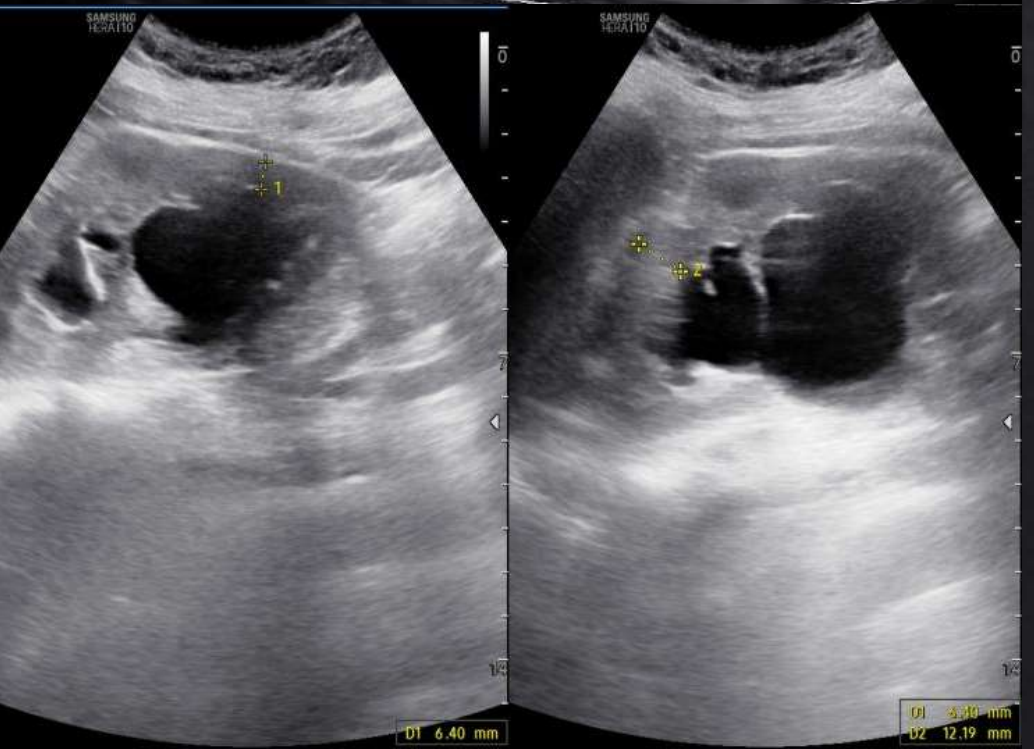
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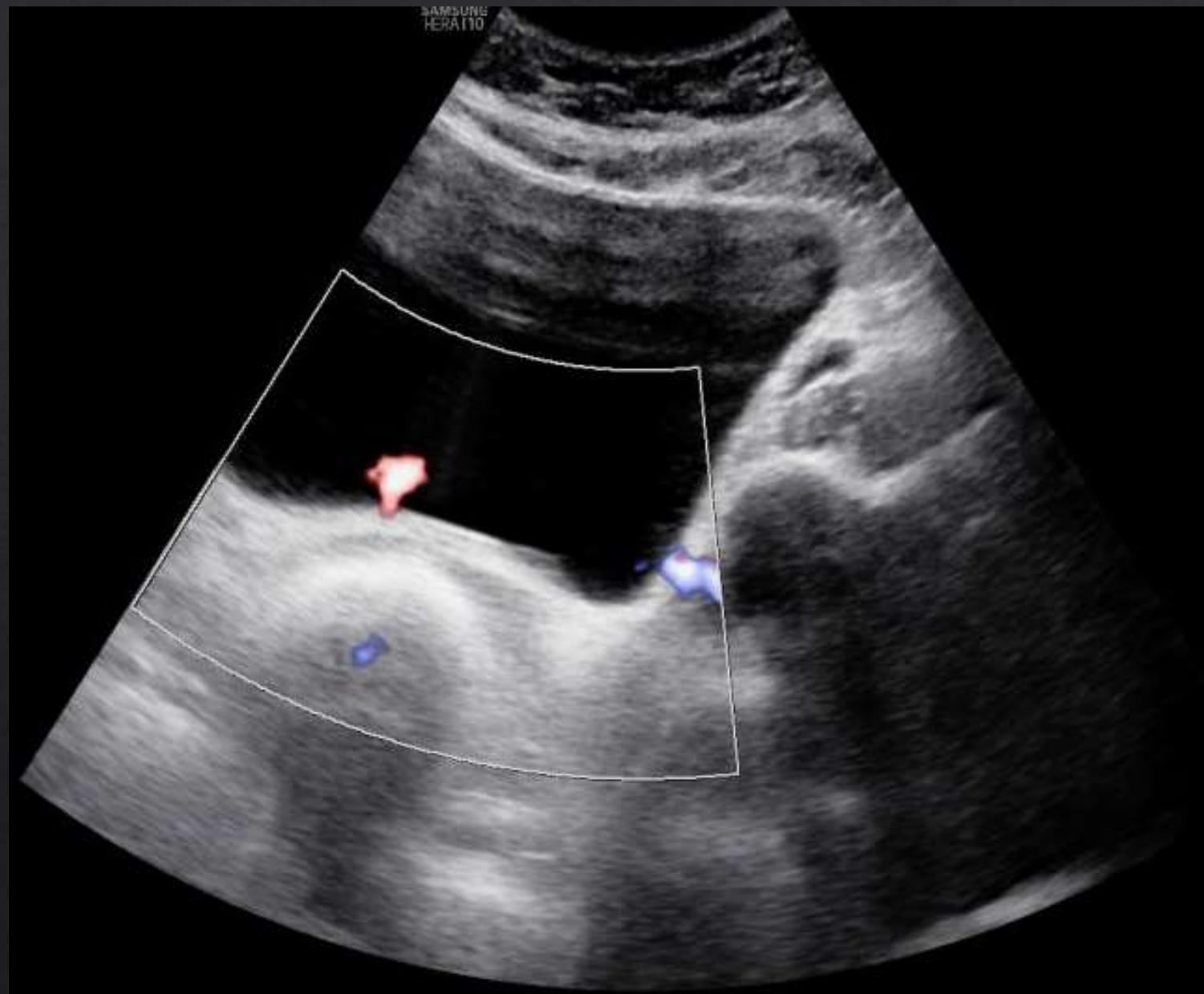
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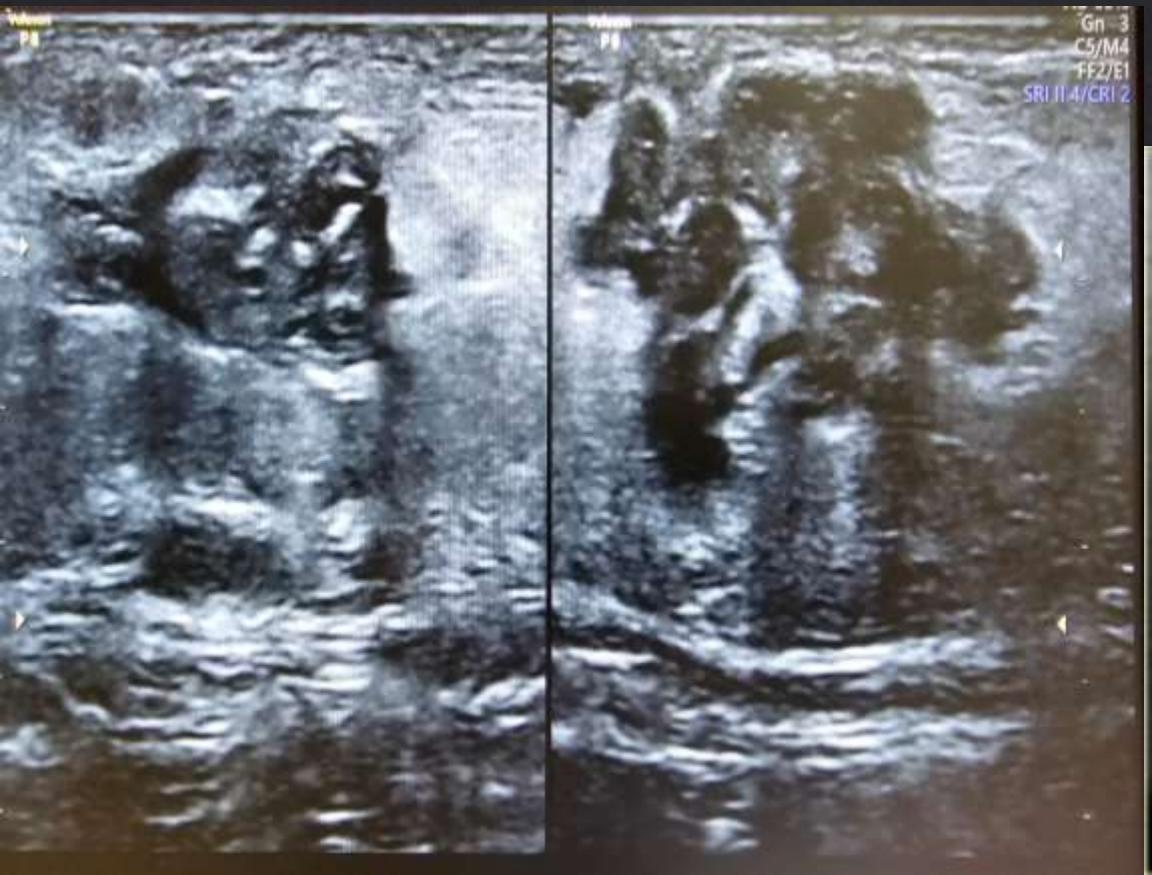
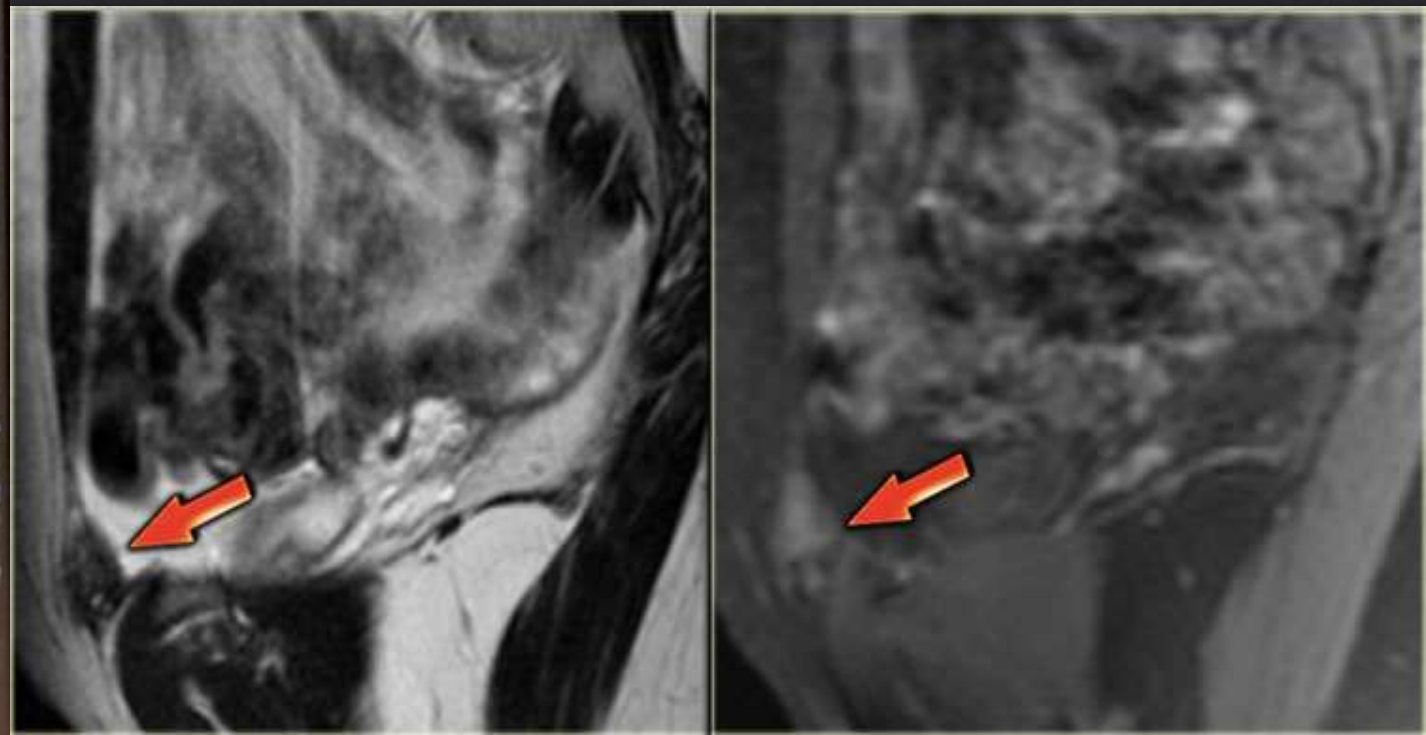
ABDOMINAL WALL ENDOMETRIOSIS (AWE)

- Strongly associated with **cesarean section scars**
- **Sonographic Features:**
- Solid **hypoechoic lesion** in abdominal wall
- May show **internal vascularity** on power Doppler
- Findings are **nonspecific**
- **Differential Diagnosis:**
- Neoplastic → sarcoma, desmoid tumor, metastasis
- Non-neoplastic → suture granuloma, hernia, hematoma, abscess
- **Key Point:**
- Always suspect **AWE in patients with abdominal wall mass near C-section scar**

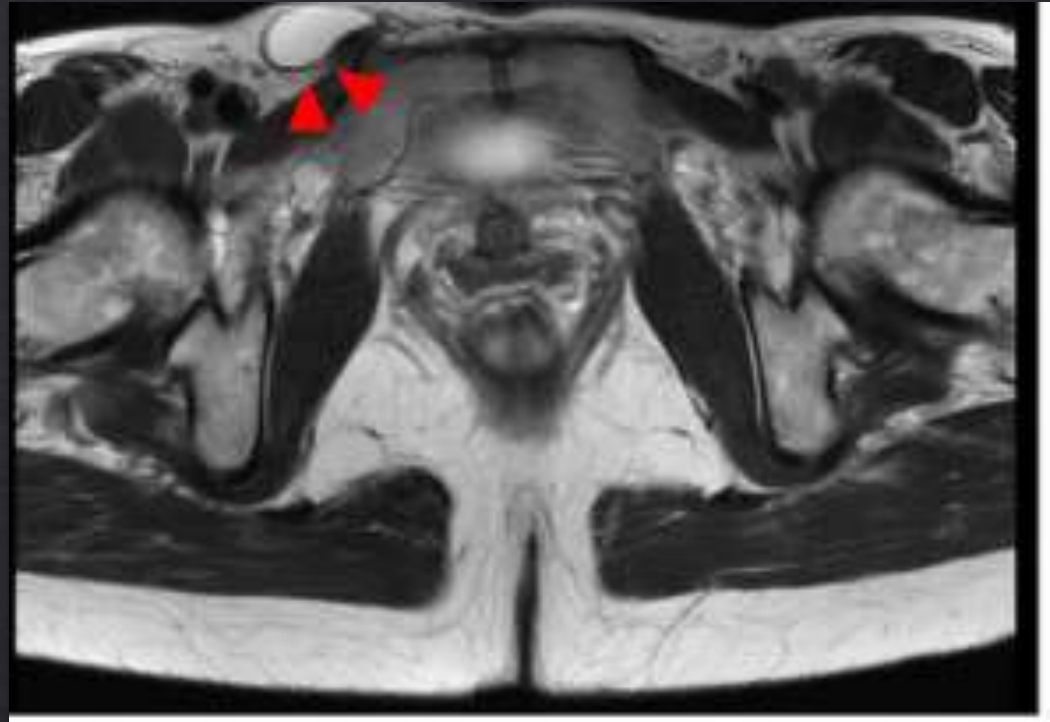
SCAR ENDOMETRIOMA





INGUINAL / GROIN ENDOMETRIOSIS: PATHOPHYSIOLOGY

- **Clockwise flow** of peritoneal fluid carries endometrial cells
- **Sigmoid colon blocks** entry into **left inguinal ring**
- Fluid more likely enters **right inguinal ring** → **explains right-sided predominance**
- Spread can also occur via **round ligament** from pelvis to groin



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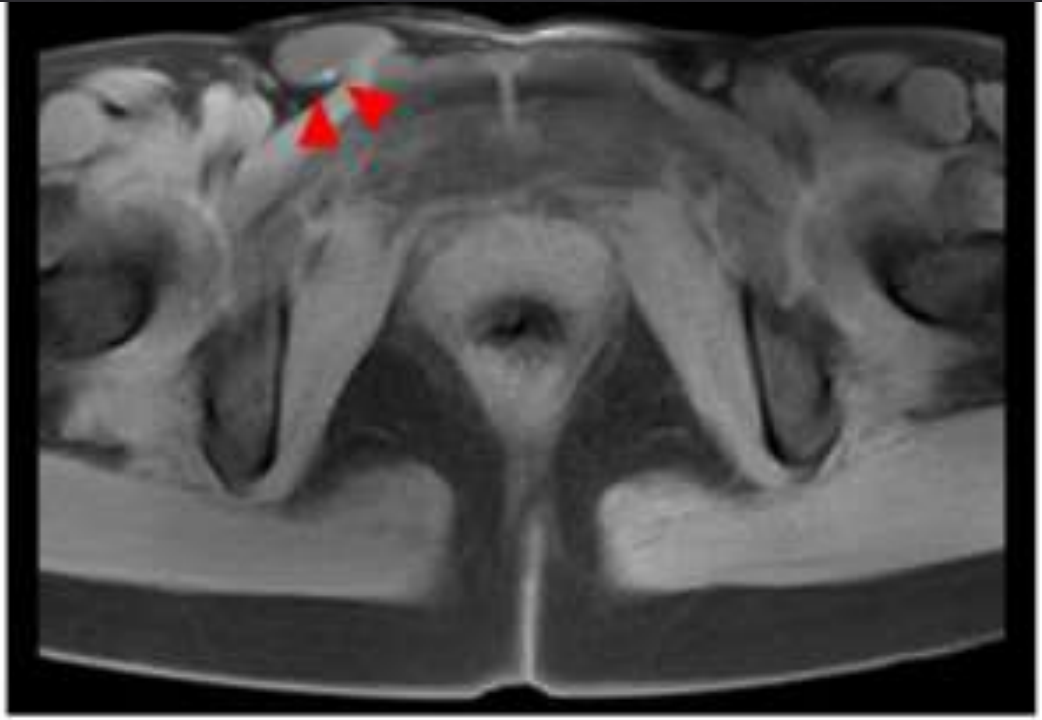

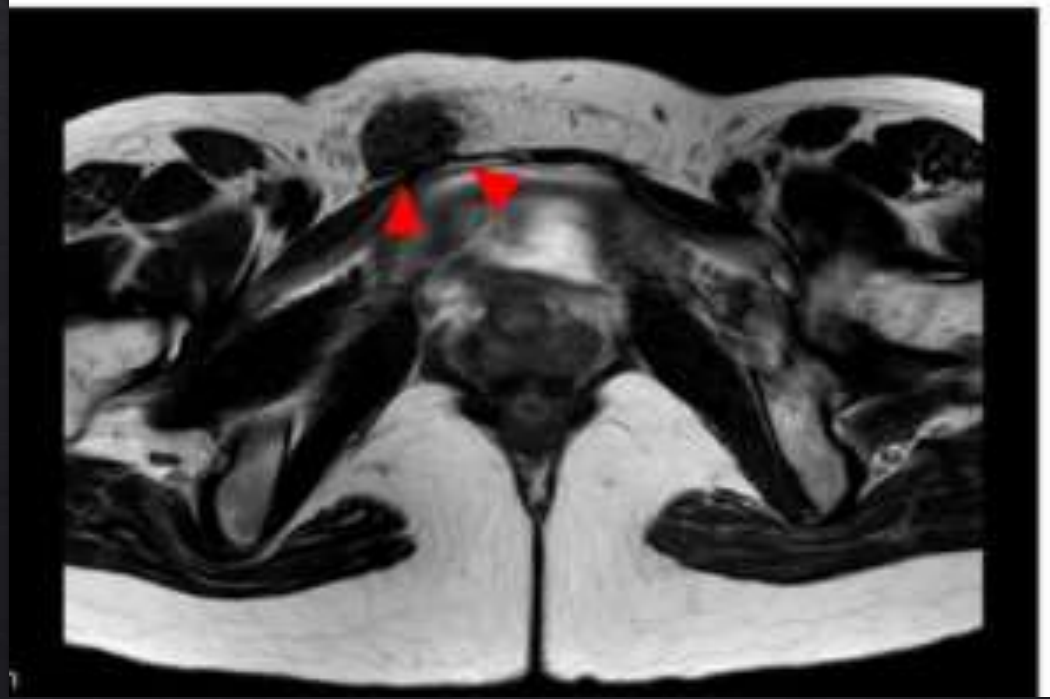

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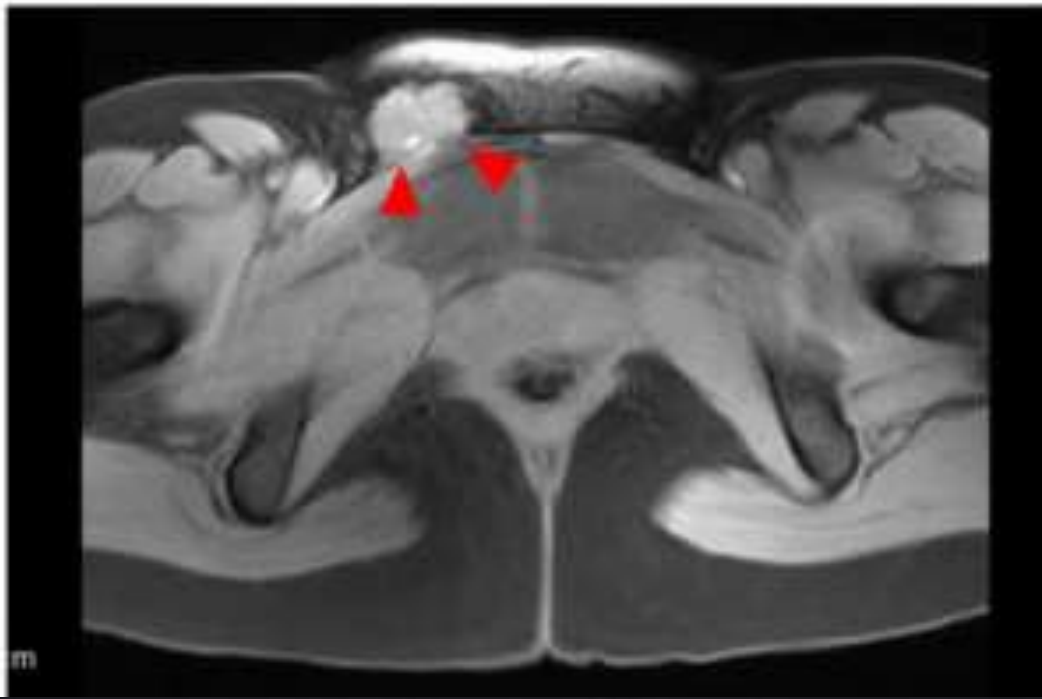
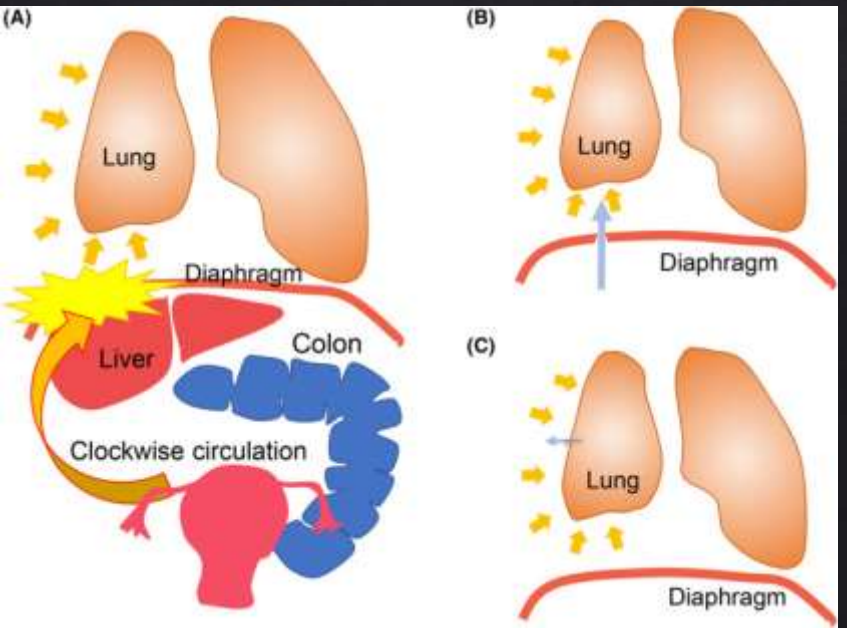
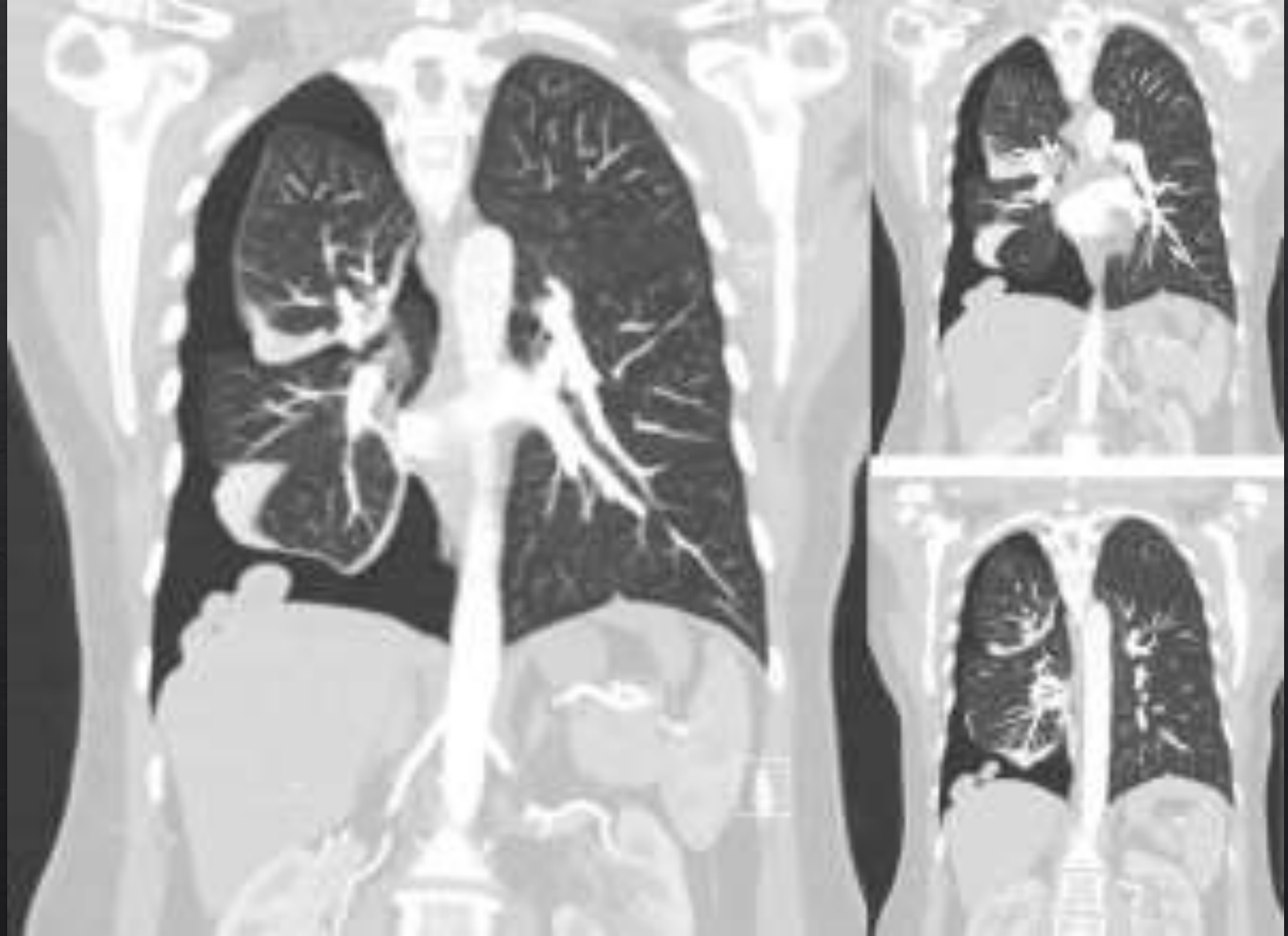


THORACIC ENDOMETRIOSIS (TE)

- **Definition:** Endometriotic lesions within the thoracic cavity
- **Major Manifestations:**
  - Catamenial Pneumothorax (CP) – *most common*
  - Catamenial Hemothorax
  - Catamenial Hemoptysis (CH)
  - Lung nodules
- **Catamenial Pneumothorax (CP):**
- Recurrent pneumothorax (≥ 2 episodes)
- Occurs **within 72 hours of menstruation onset**
- Strong association with TE





TAKE HOME MESSAGE

- **Extra pelvic endometriosis is rare but diverse** – can affect GI, urinary, thoracic, abdominal wall, and even CNS
- **Symptoms depend on site** – always maintain a **high index of suspicion** in women of reproductive age with cyclical complaints
- **Imaging plays a central role** – USG (high-frequency), MRI (superior modality), CT (limited role)
- **History of pelvic surgery (e.g., C-section)** → think of scar/abdominal wall endometriosis
- **Thoracic involvement (catamenial pneumothorax/hemoptysis)** should not be missed
- **Multidisciplinary approach** (gynecology, radiology, surgery) ensures optimal care

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