

# COMPREHENSIVE EVALUATION OF ENDOMETRIOSIS

By:  
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# DIAGNOSTIC IMAGING

Ultrasound (endocavitary): primary imaging tool

- Dynamic
- Color Doppler

MRI: problem-solving additional examination in complex cases  
as second line technique after ultrasound

**Table 2** Diagnostic performance of TVS and MRI in staging of pelvic DIE

DIE	Index test	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	LR +	LR -	Accuracy (%)	p-value
Bladder	TVS	89	100	100	98	infinity	0.11	98	0.250
	MRI	100	95	82	100	20.00	0.00	96	
Ureters	TVS/TAS	100	100	100	100	infinity	0.00	100	1.00
	MRI	100	100	100	100	infinity	0.00	100	
Uterosacral ligament(s)	TVS	74	67	83	53	2.21	0.40	71	0.039
	MRI	94	60	84	82	2.35	0.10	84	
Rectum	TVS	100	100	100	100	infinity	0.00	100	1.000
	MRI	100	100	100	100	infinity	0.00	100	
Recto-sigmoid	TVS	94	84	76	96	6.20	0.07	88	1.000
	MRI	94	84	76	96	6.20	0.07	88	
Rectovaginal septum	TVS	67	100	100	96	infinity	0.33	96	0.125
	MRI	83	93	63	98	11.90	0.18	92	
Vagina	TVS	17	100	100	79	infinity	0.83	80	0.250
	MRI	25	95	60	80	4.62	0.79	78	

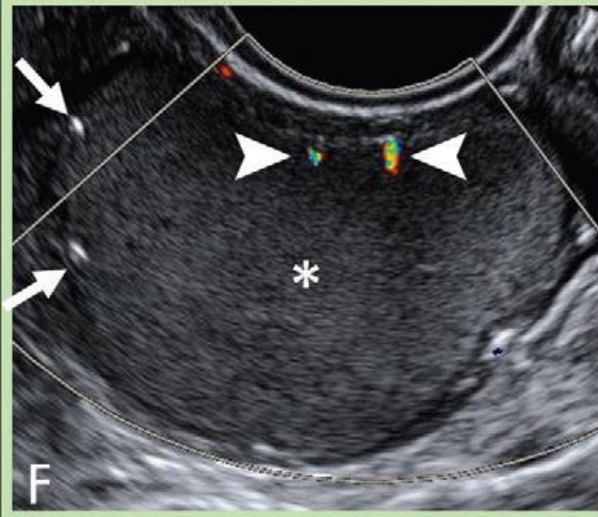
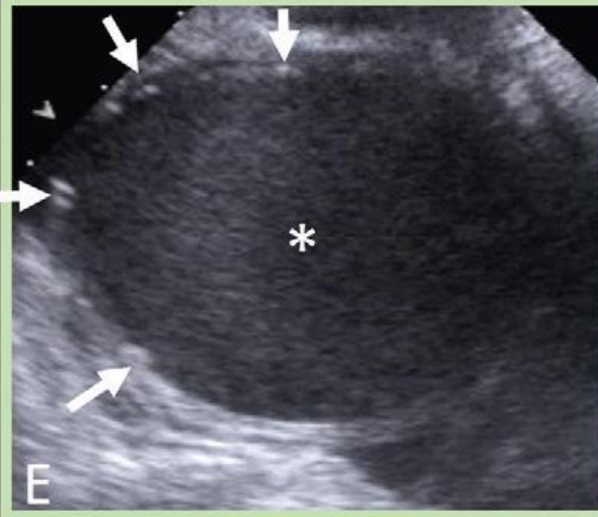
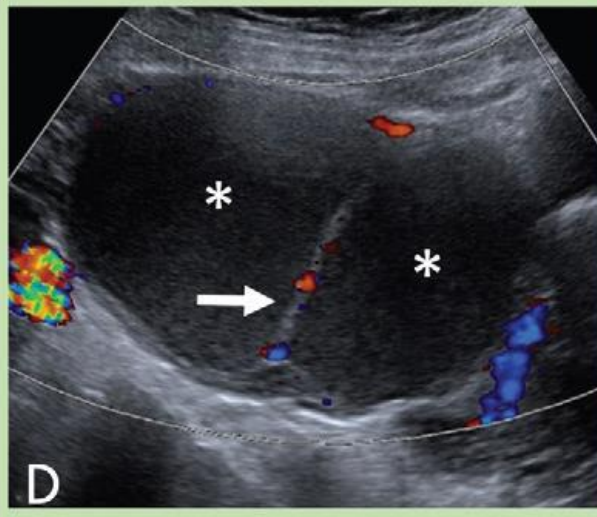
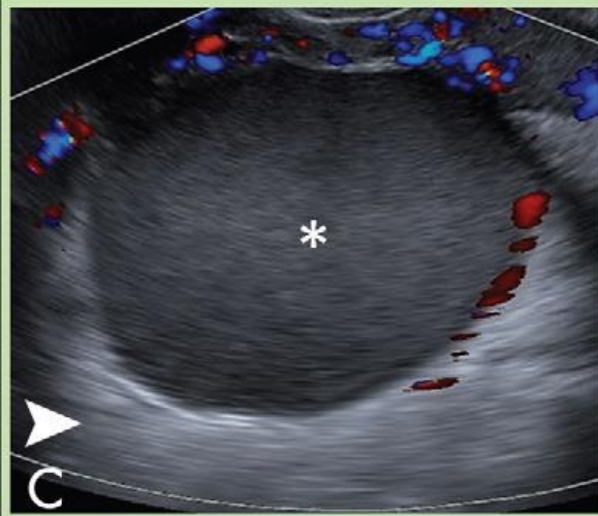
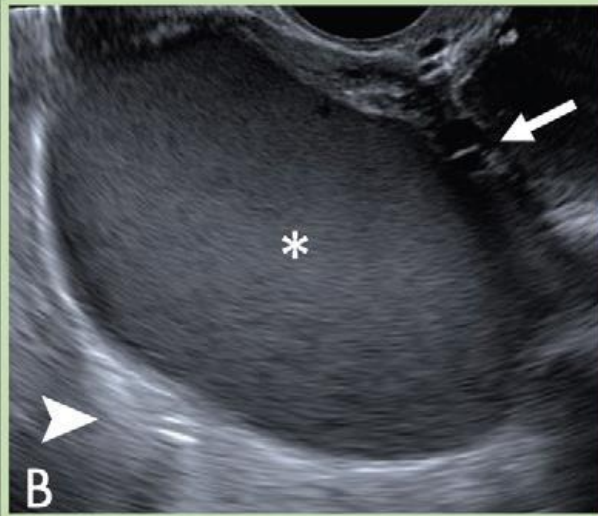
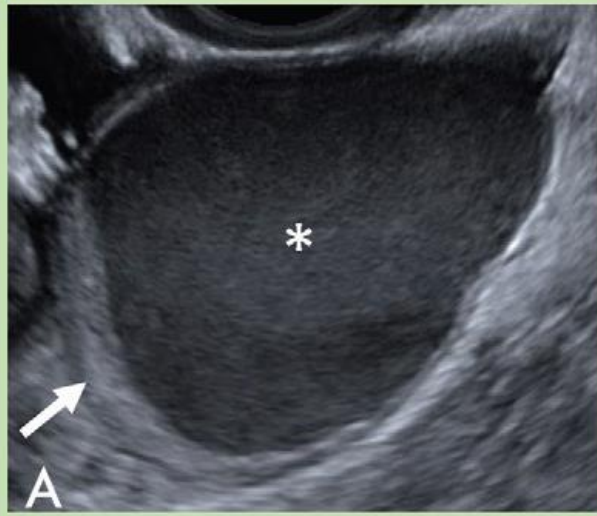
# TYPES OF ENDOMETRIOTIC LESIONS:

1. Endometrial ovarian cysts (endometriomas)
2. Small superficial peritoneal implants
3. Adhesions
4. Deep infiltrating endometriosis involving round ligament, parametrium, retrocervical region, USL
5. Deep infiltrating endometriosis involving bladder and rectal wall

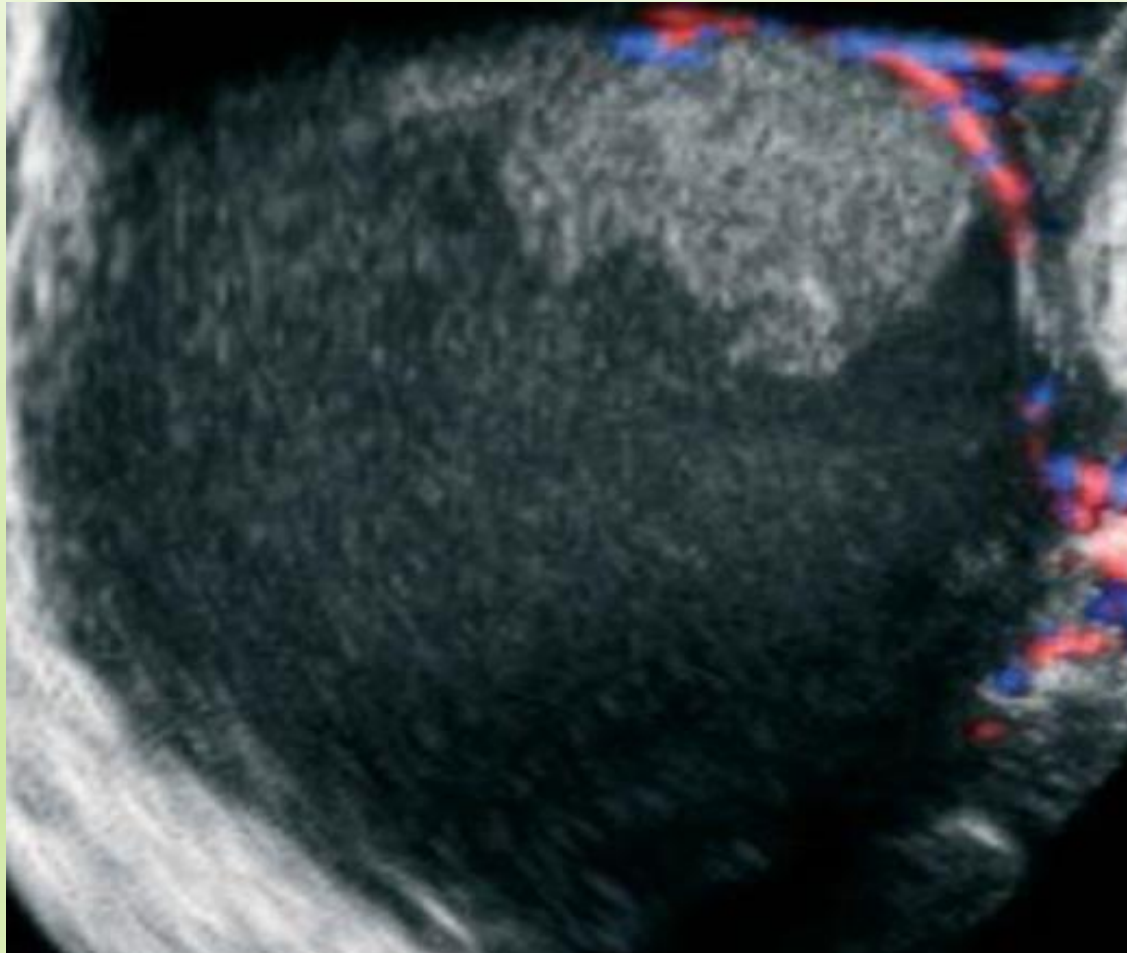
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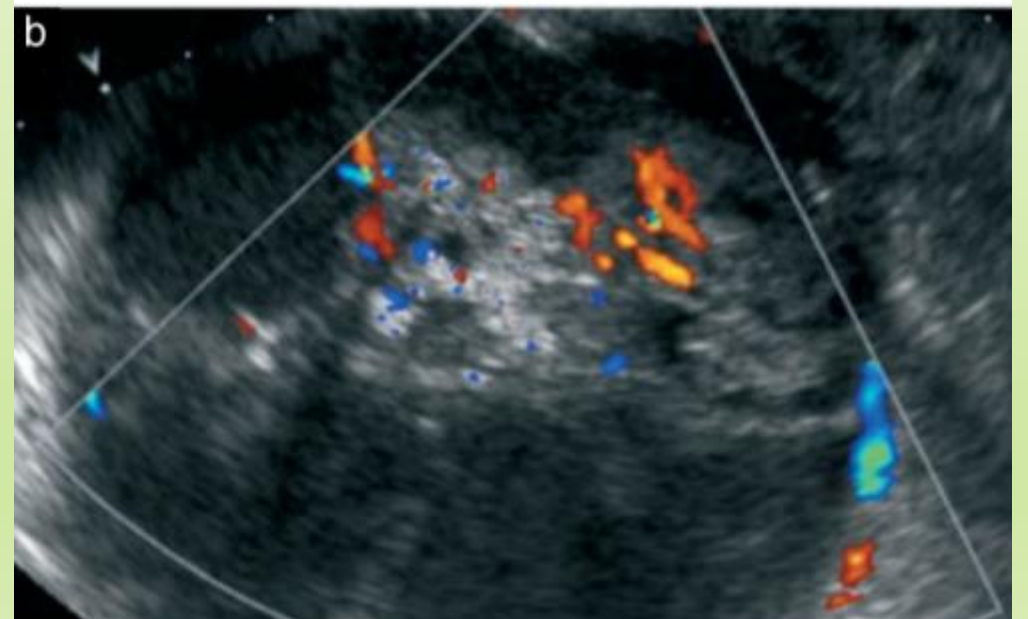
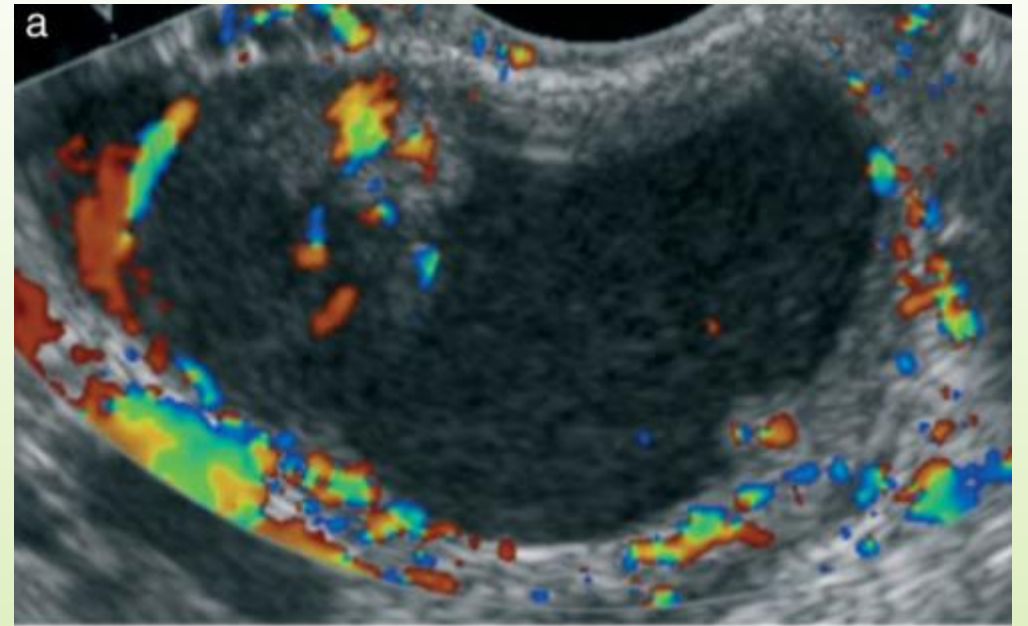
# Typical Endometriomas



# ATYPICAL ENDOMETRIOMA



THE HISTOLOGICAL DIAGNOSIS WAS  
MUCINOUS CYSTADENOMA AND  
ANAPLASTIC TUMOR OF THE OVARY



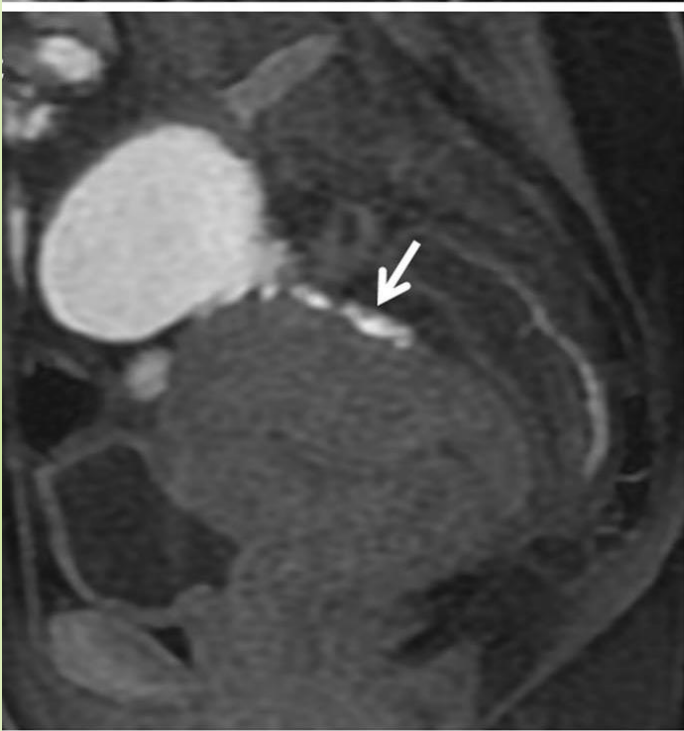
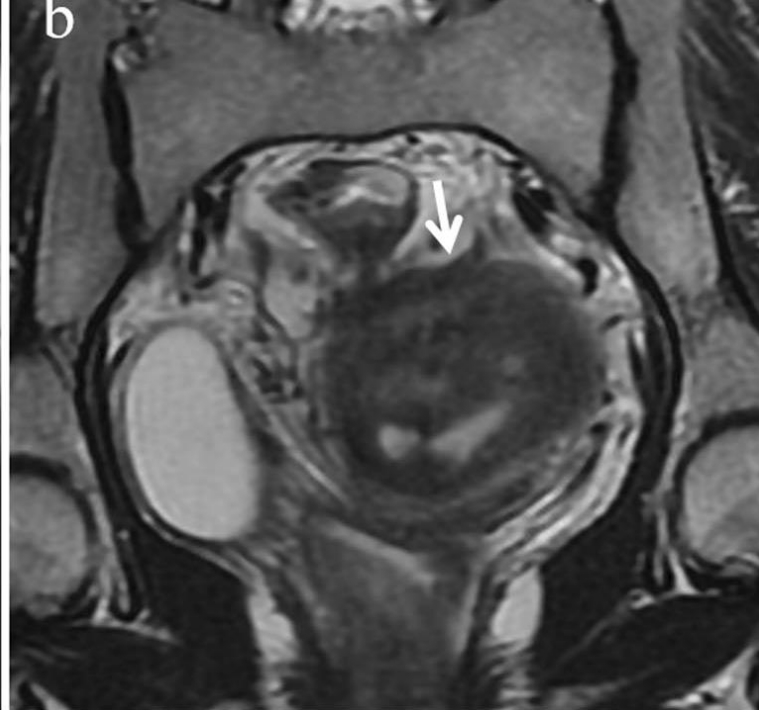


# DIFFERENTIAL DIAGNOSIS:

- Dermoids
- Mucinous cystic neoplasms
- Hemorrhagic masses

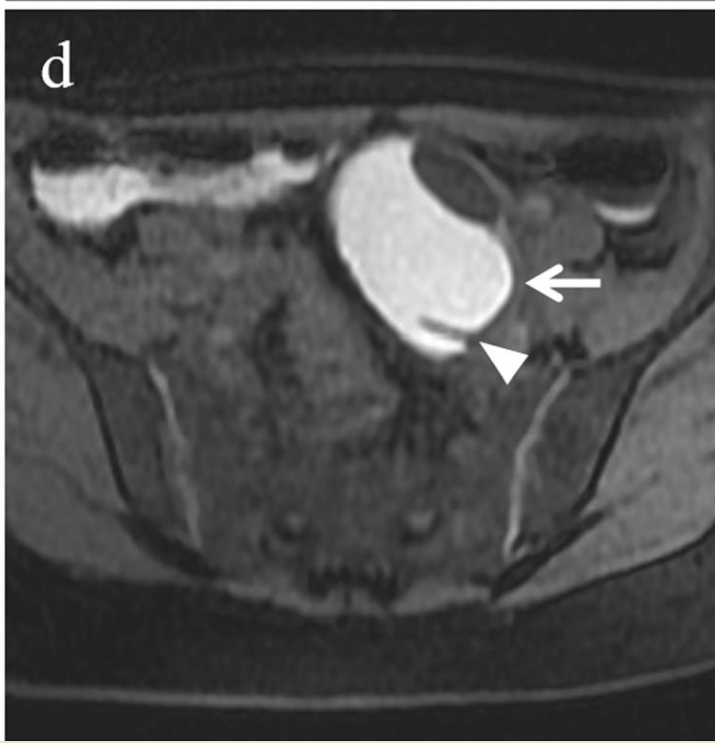
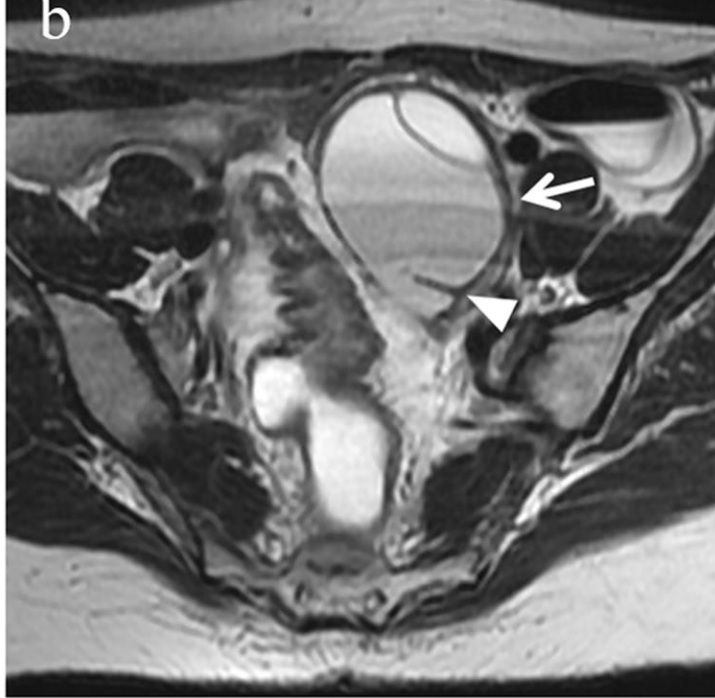
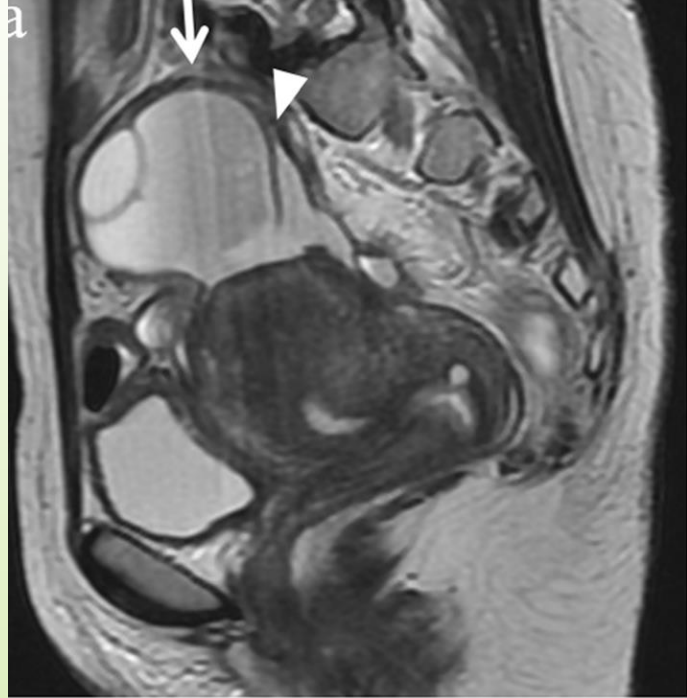
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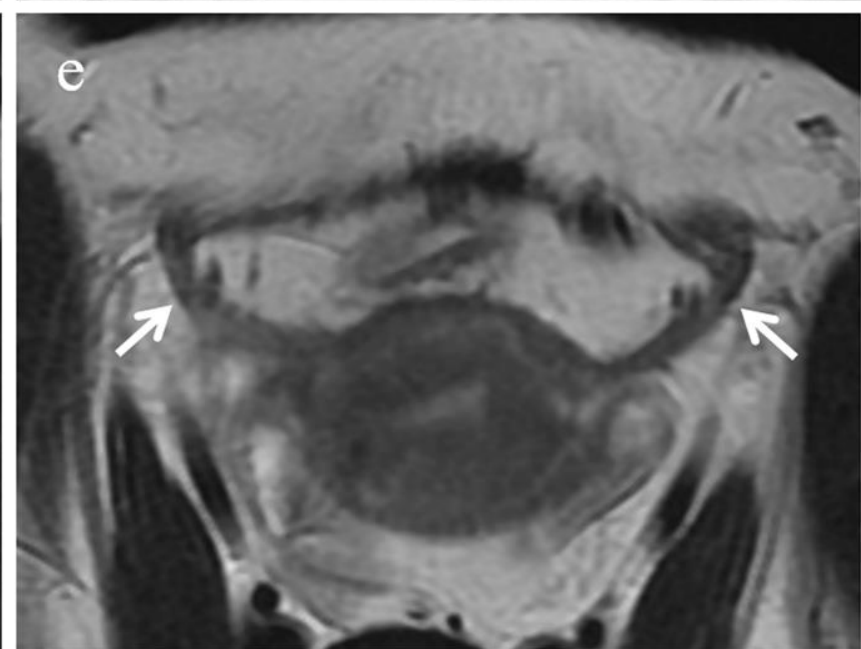
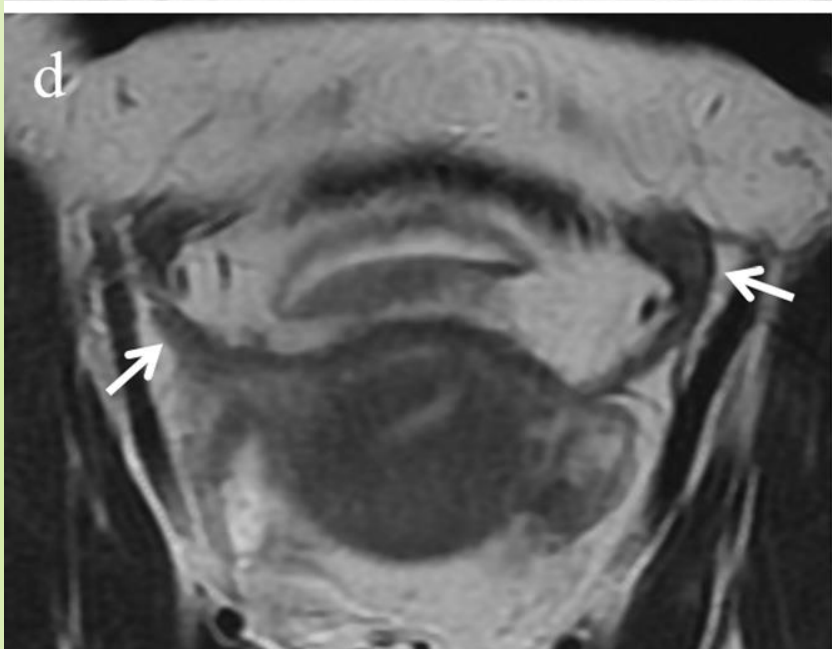
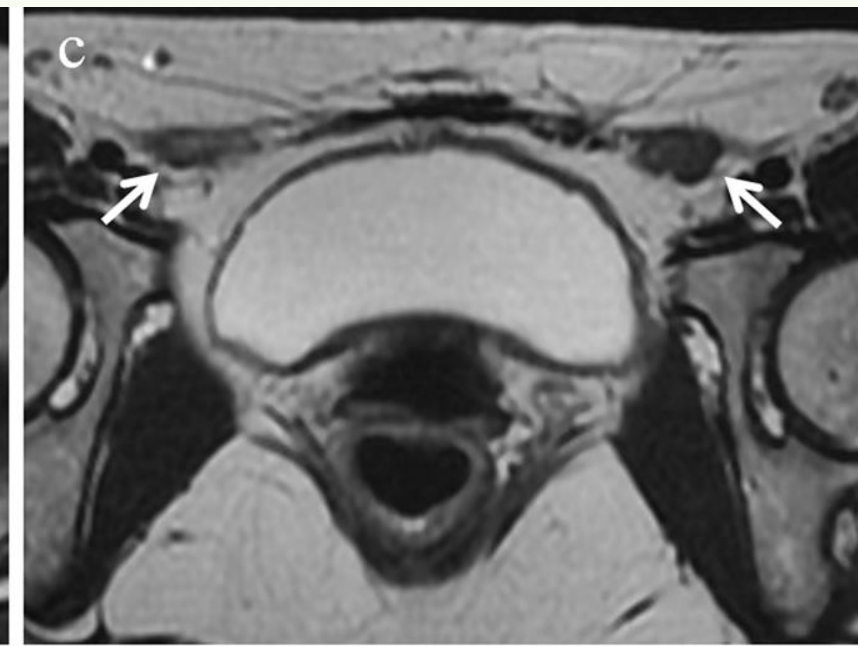
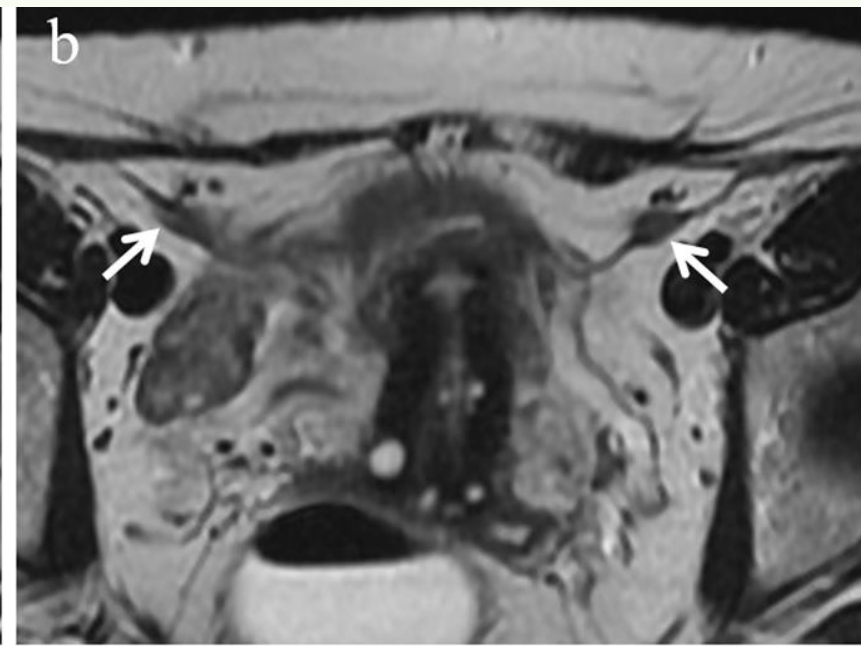
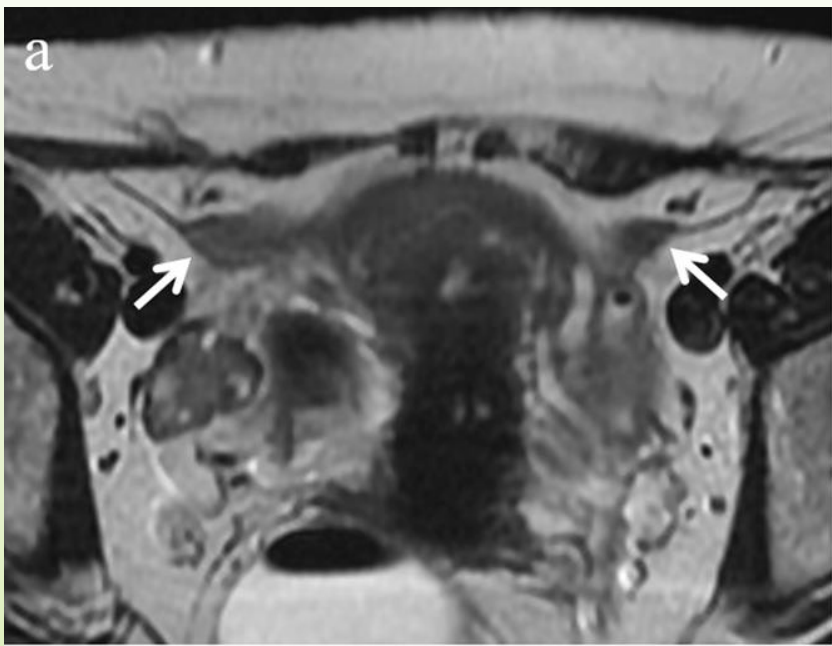
# ASSESSMENT OF DIE IN ANT&POS COMPARTMENT

DIE is seen in 15-30% of patient and includes lesions penetrate retroperitoneum or walls of pelvic organ to a depth of at least 5mm.

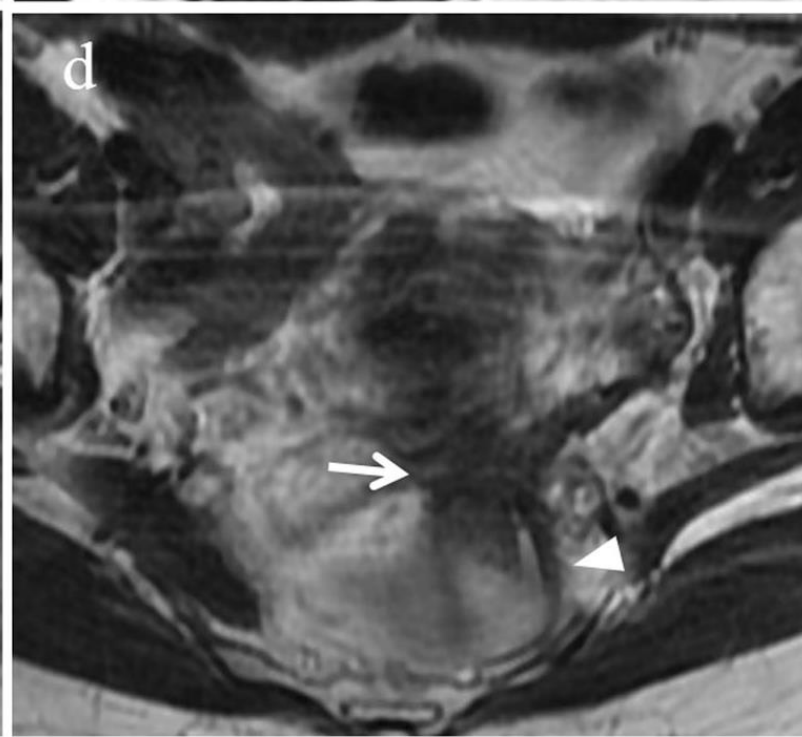
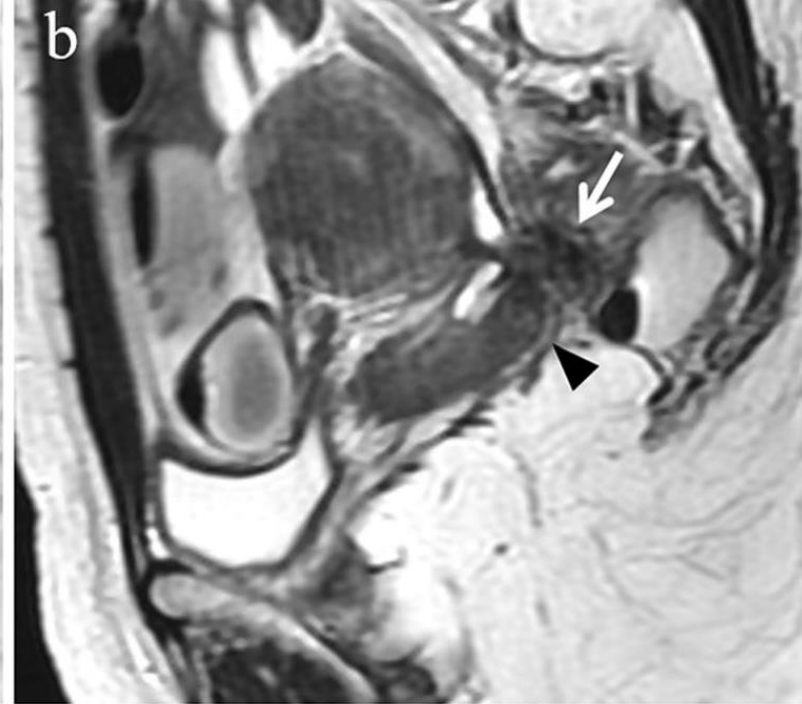
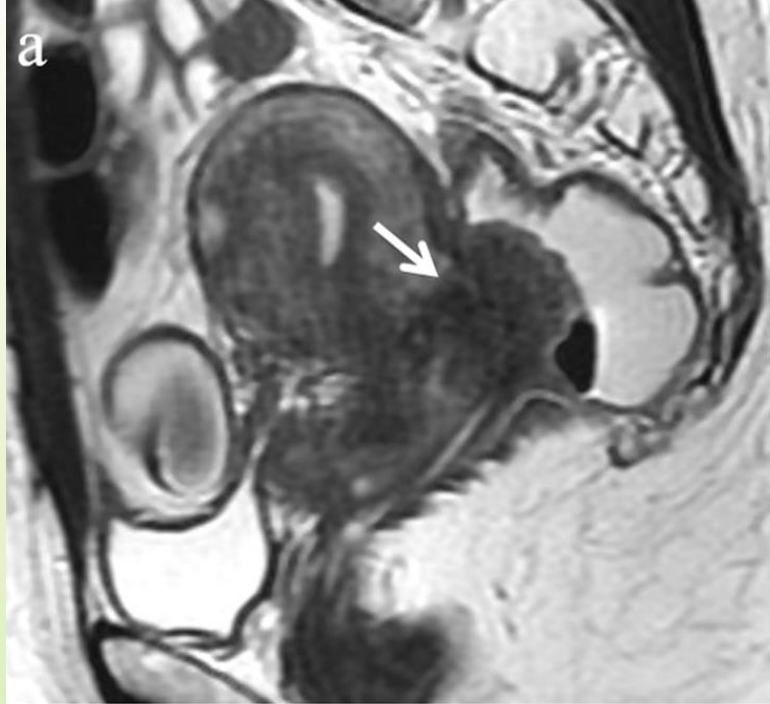
Common location are categorized to anterior and posterior compartments.

To assess the anterior compartment, the transducer is positioned in the anterior fornix of the vagina,

The transducer is positioned in the posterior fornix of the vagina and slowly withdrawn through the vagina to allow visualization of the posterior compartment.





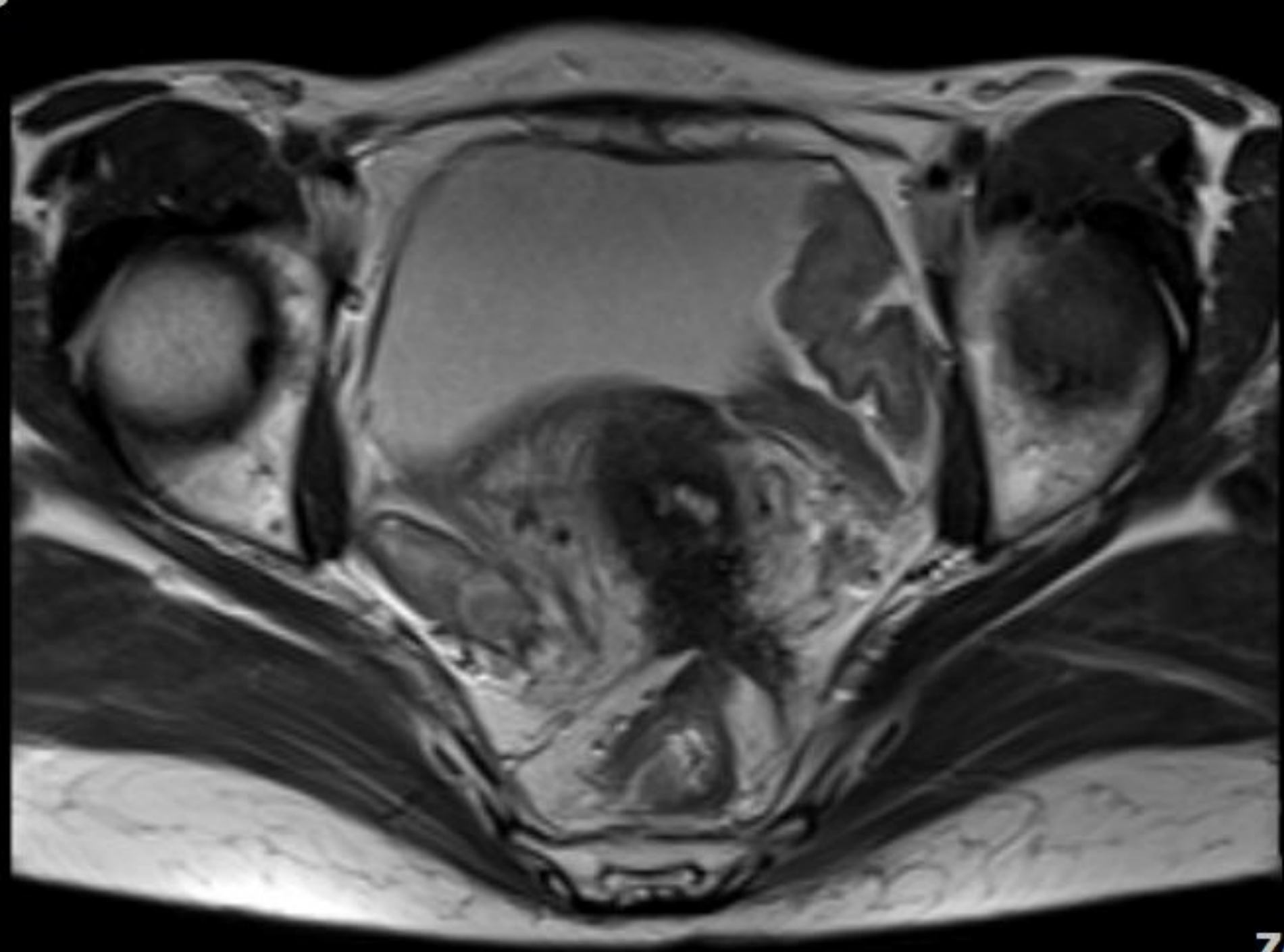


# DIFFERENTIAL DIAGNOSIS:

Epithelial neoplasms arising from the uterine cervix or vaginal wall

E8

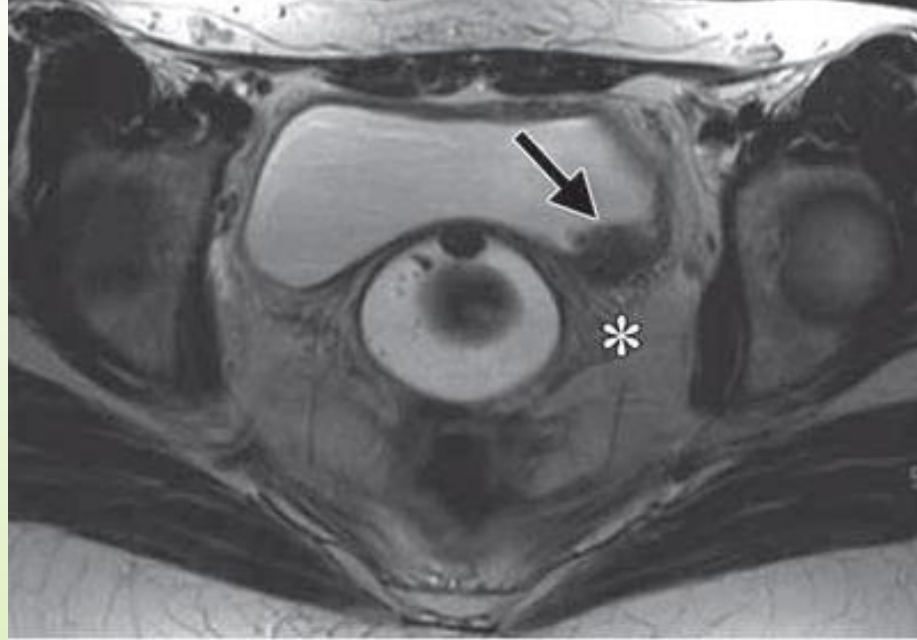




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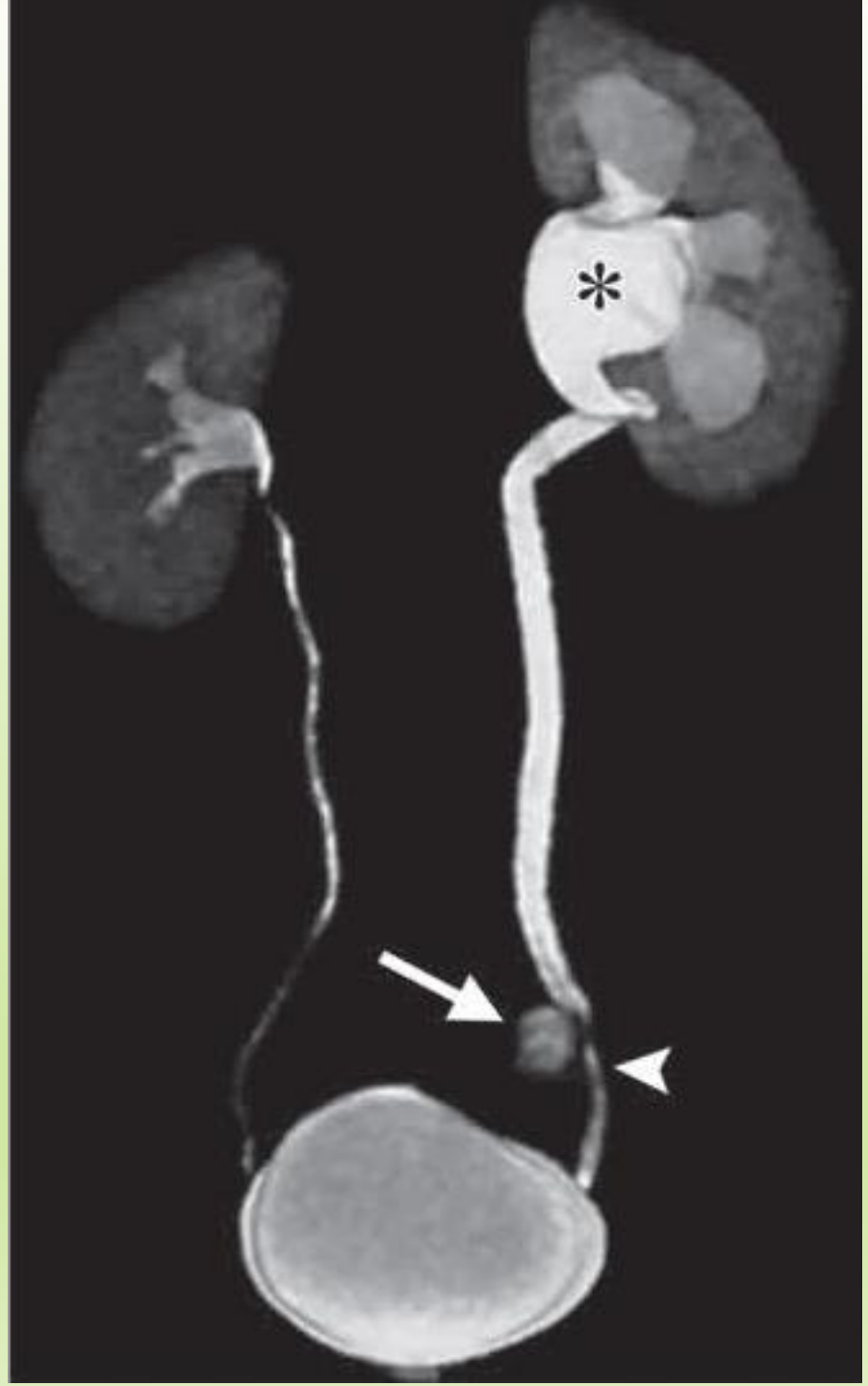
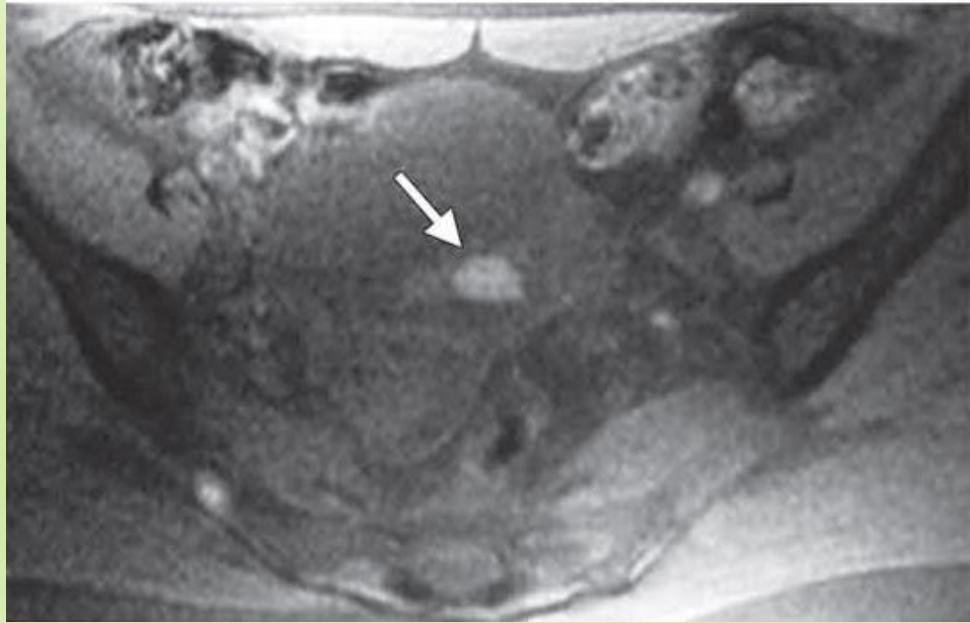
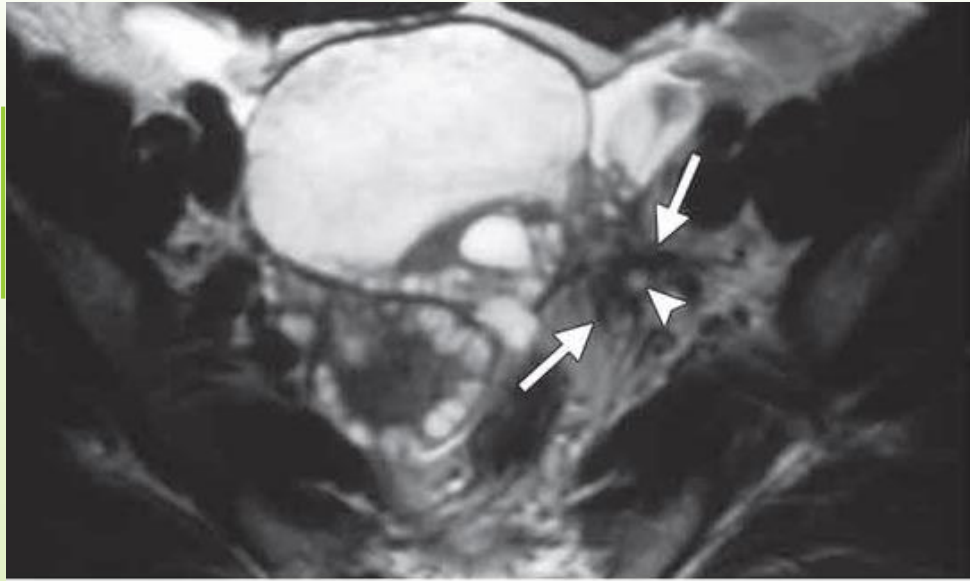
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a.





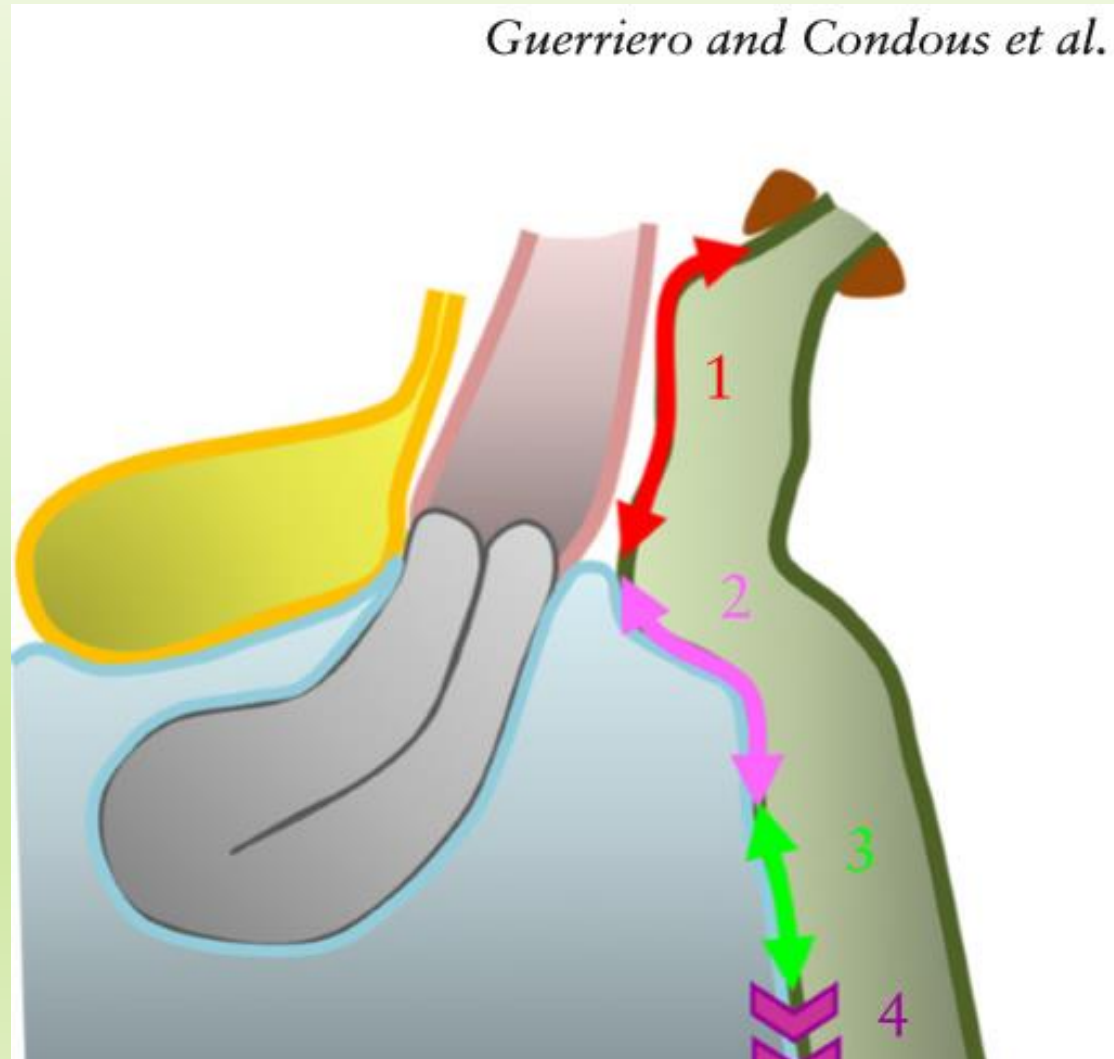


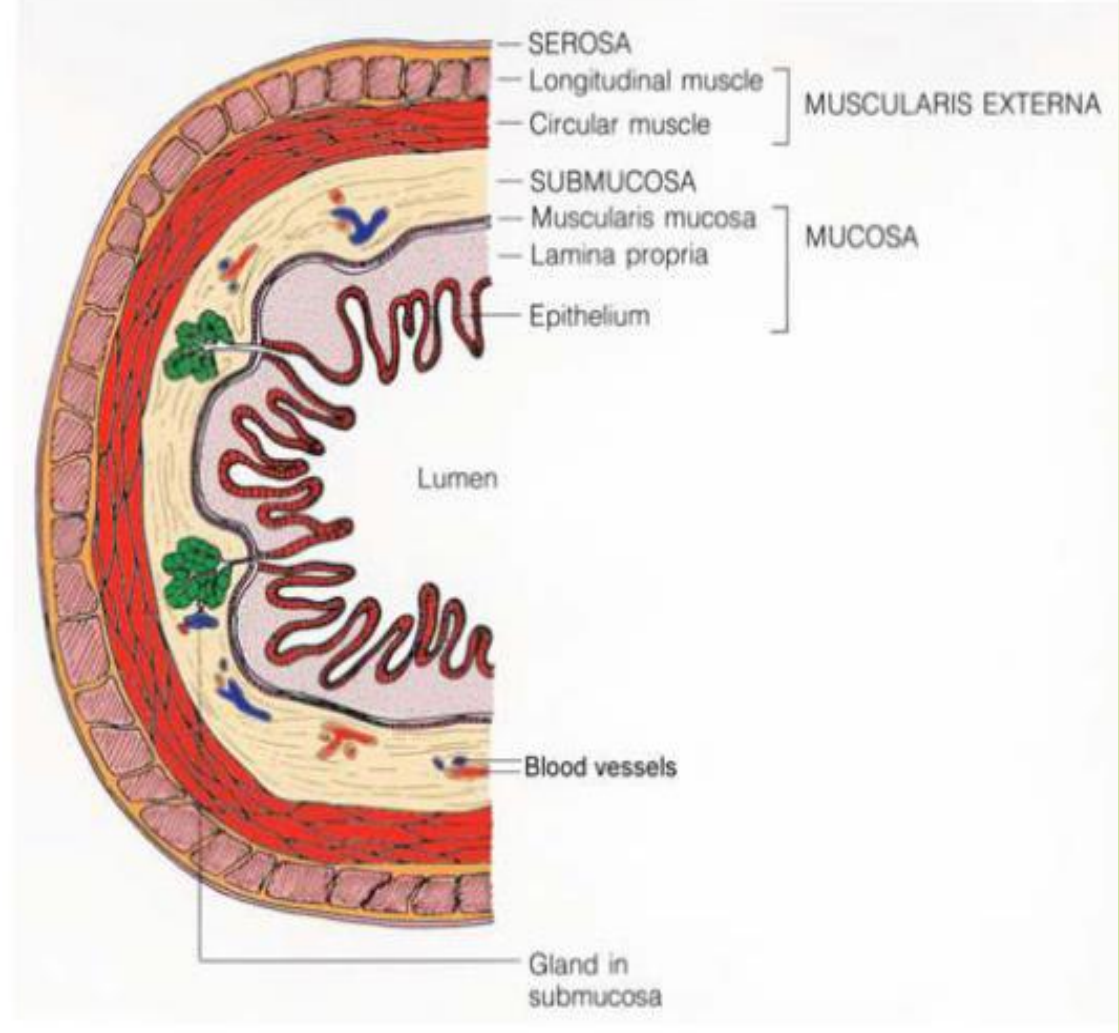
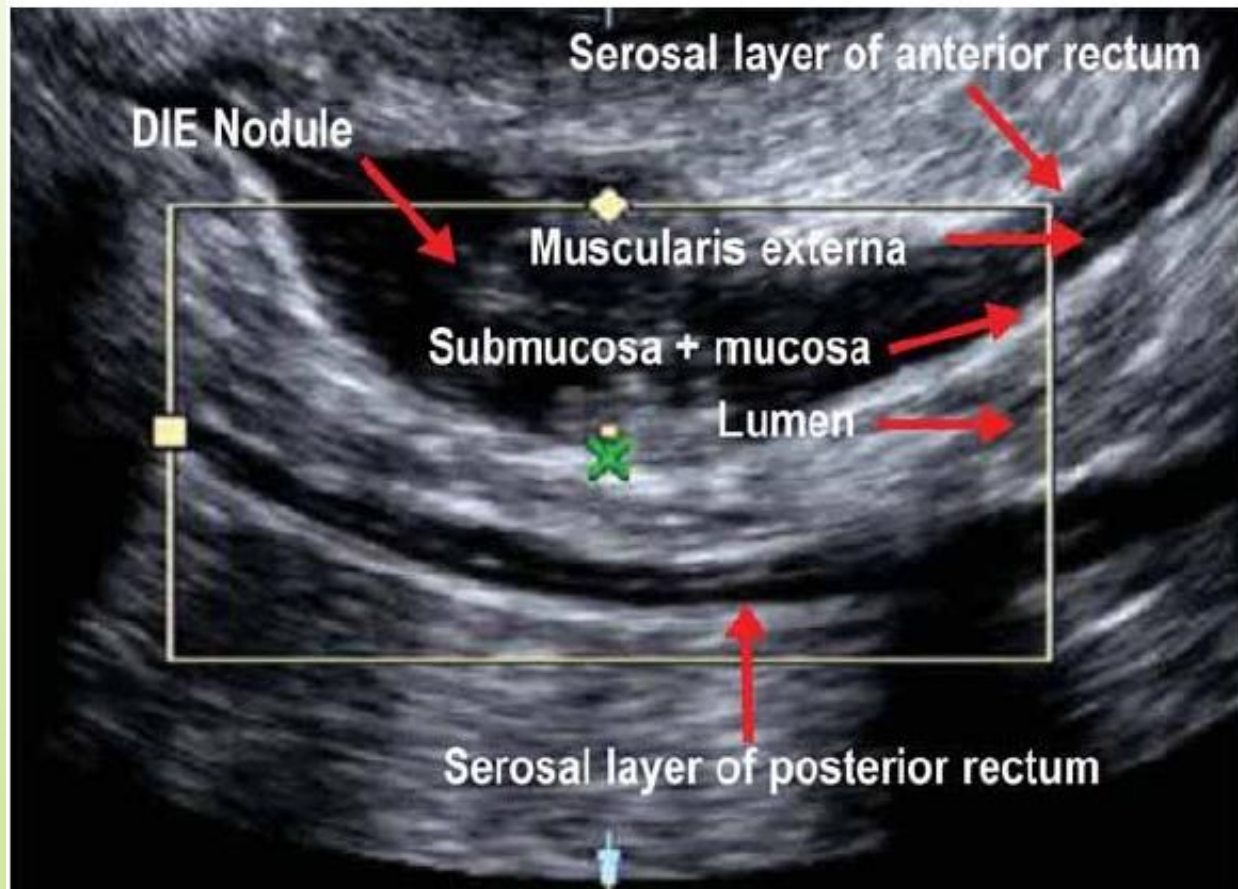
# DIFFERENTIAL DIAGNOSIS:

- Urachal remnant
- Epithelial tumors (bladder carcinoma)
- Mesenchymal tumors (angioma, leiomyoma)

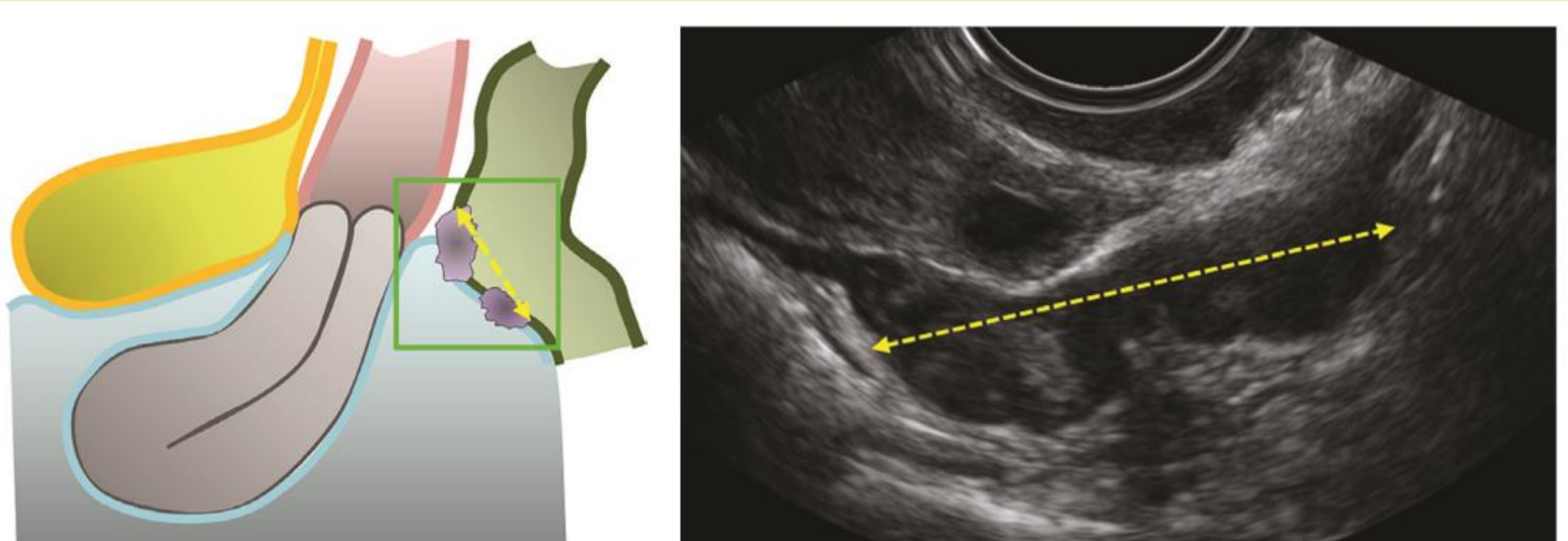
**LOWER (OR RETROPERITONEAL) ANTERIOR RECTUM (1); UPPER (VISIBLE AT LAPAROSCOPY) ANTERIOR RECTUM (2); RECTOSIGMOID JUNCTION (3); AND ANTERIOR SIGMOID (4).**

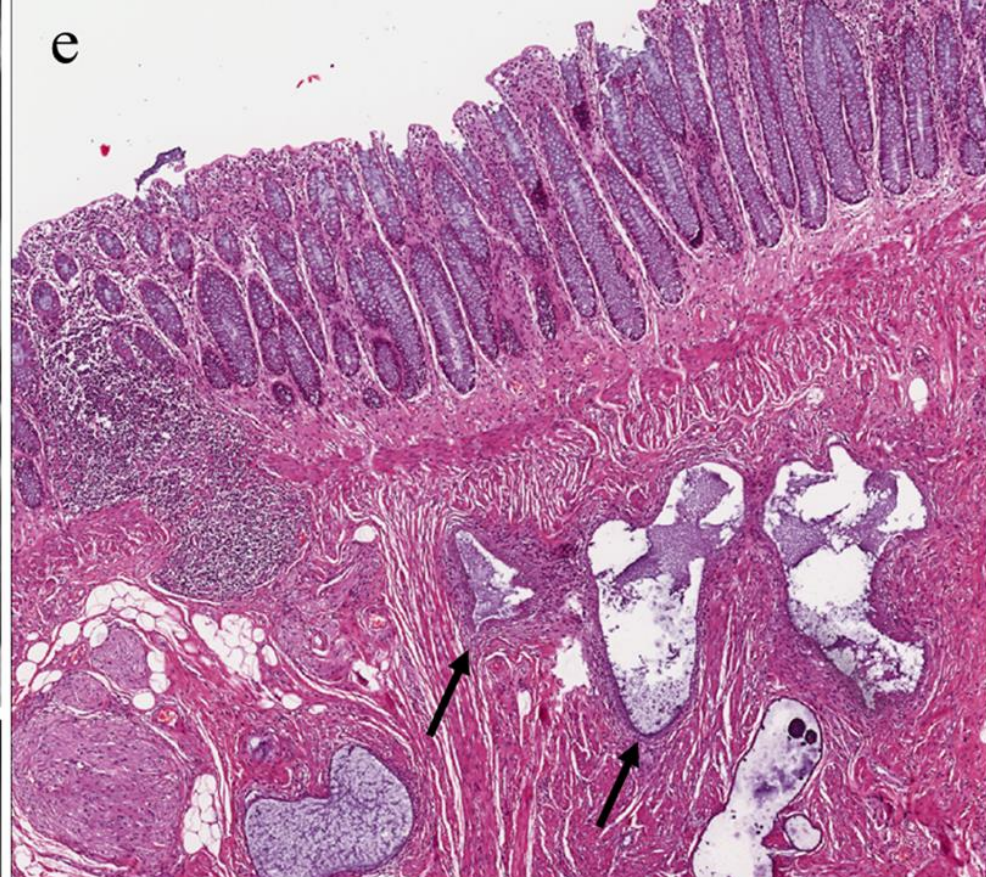
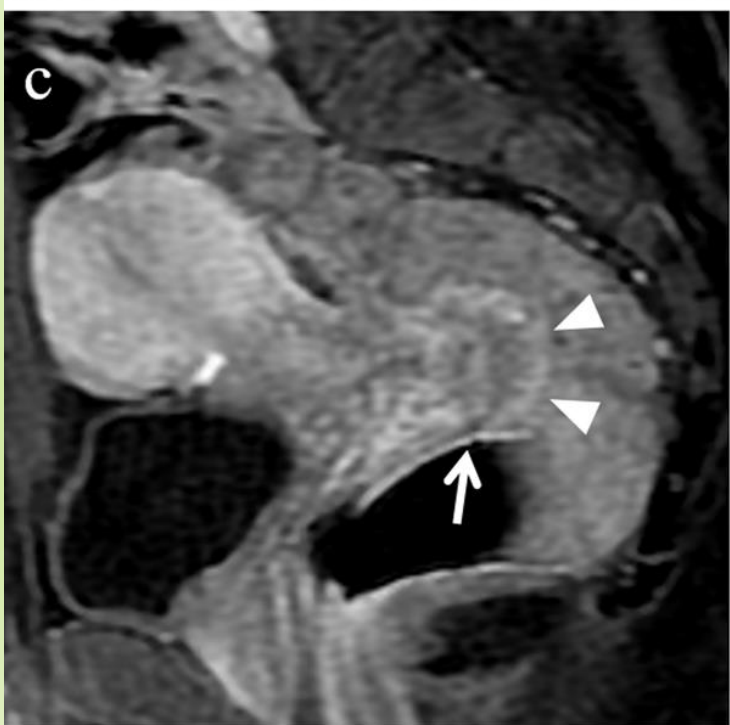
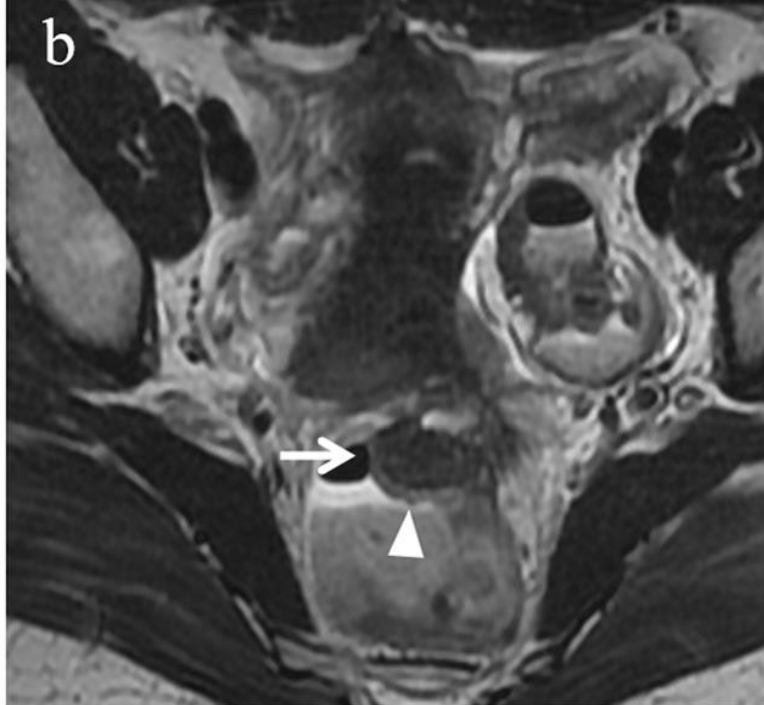
*Guerriero and Condous et al.*





***IN CASES OF MULTIFOCAL LESIONS OF DEEP INFILTRATING ENDOMETRIOSIS IN THE BOWEL, THE TOTAL LENGTH OF THE BOWEL SEGMENT INVOLVED (FROM CAUDAL TO CEPHALIC ASPECT) SHOULD BE MEASURED***





# DIFFERENTIAL DIAGNOSIS:

- Rectal cancer
- Metastatic implants to the bowel

# LOCATIONS AND CLINICAL FEATURES

- ❖ Peritoneal endometriosis vs deep pelvic endometriosis
- ❖ Enriched sensory innervation
- ❖ DIE involving the bowel correlates with the high incidence of patient-reported pain
- ❖ The intensity of pain is proportional to the depth of lesion penetration
- ❖ In many cases the extent of endometriotic lesions does not correlate with the severity of symptoms

# HOME MESSAGE NOTES:

- ❖ TVS is modality of choice for evaluation of endometriosis
- ❖ USLs are most common site of DIE
- ❖ Bladder is involved by endometriosis mostly at dome



