

# #ENZIAN

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Classification of peritoneal, ovarian and deep endometriosis

# TEILNEHMER AG #ENZIAN KLASSIFIZIERUNG

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AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE  
REVISED CLASSIFICATION OF ENDOMETRIOSIS

Patient's Name \_\_\_\_\_ Date \_\_\_\_\_  
 Stage I (Minimal) - 1-5      Laparoscopy \_\_\_\_\_ Laparotomy \_\_\_\_\_ Photography \_\_\_\_\_  
 Stage II (Mild) - 6-15      Recommended Treatment \_\_\_\_\_  
 Stage III (Moderate) - 16-40  
 Stage IV (Severe) - > 40  
 Total \_\_\_\_\_ Prognosis \_\_\_\_\_

PERITONEUM	ENDOMETRIOSIS	<1cm	1-3cm	>3cm
		Superficial	1	2
	Deep	2	4	6
OVARY	R Superficial	1	2	4
	Deep	4	16	20
	L Superficial	1	2	4
	Deep	4	16	20
POSTERIOR CULDESAC OBLITERATION		Partial	Complete	
		4	40	
OVARY	ADHESIONS	<1/3 Enclosure	1/3-2/3 Enclosure	>2/3 Enclosure
	R Filmy	1	2	4
	Dense	4	8	16
	L Filmy	1	2	4
	Dense	4	8	16
	TUBE	R Filmy	1	2
	Dense	4*	8*	16
	L Filmy	1	2	4
	Dense	4*	8*	16

\*If the fimbriated end of the fallopian tube is completely enclosed, change the point assignment to 16.  
 Denote appearance of superficial implant types as red (R), red, red-pink, flamelike, vesicular blobs, clear vesicles), white (W), opacifications, peritoneal defects, yellow-brown), or black (B) black, hemosiderin deposits, blue). Denote percent of total described as R\_\_\_\_%, W\_\_\_\_% and B\_\_\_\_%. Total should equal 100%.

Classification of Deep Infiltrating Endometriosis (according to the Endometriosis Research Foundation, SEF)

**Compartment**  
A, B or C

**Level**

**1**  
< 1 cm

**2**  
1 - 3 cm

**3**  
> 3 cm

**F**  
Uterine and other extragenital deep infiltration endometriosis

**FA** Adenomyosis

**FB** Bladder

**FU** Ureter, intrinsic

**FI** Intestine, others (Sigmoid, Coecum, Appendix, Ileum)

**FO** Other localisation  
 Lung  
 Diaphragm  
 Inguinal region e.g.

ENDOMETRIOSIS FERTILITY INDEX (EFI)  
SURGERY FORM

LEAST FUNCTION (LF) SCORE AT CONCLUSION OF SURGERY

Score	Description	Left	Right
4	Normal	<input type="checkbox"/>	<input type="checkbox"/>
3	Mild Dysfunction	<input type="checkbox"/>	<input type="checkbox"/>
2	Moderate Dysfunction	<input type="checkbox"/>	<input type="checkbox"/>
1	Severe Dysfunction	<input type="checkbox"/>	<input type="checkbox"/>
0	Absent or Nonfunctional	<input type="checkbox"/>	<input type="checkbox"/>

Fallopian Tube  
 Fimbria  
 Ovary

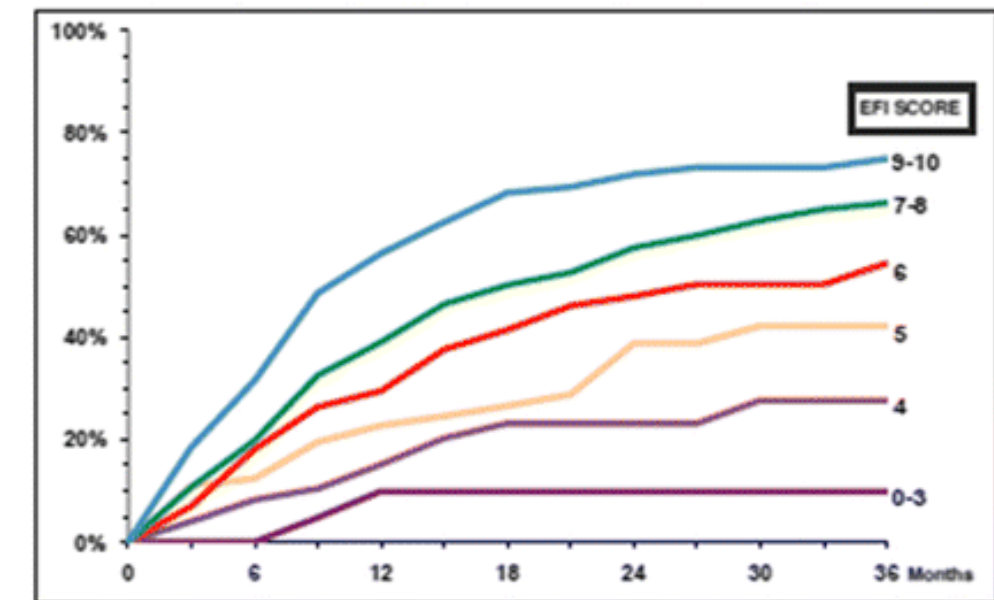
To calculate the LF score, add together the lowest score for the left side and the lowest score for the right side. If an ovary is absent on one side, the LF score is obtained by doubling the lowest score on the side with the ovary.

Lowest Score Left + Lowest Score Right = LF Score

ENDOMETRIOSIS FERTILITY INDEX (EFI)

Historical Factors			Surgical Factors		
Factor	Description	Points	Factor	Description	Points
Age	If age is ≤ 35 years	2	LF Score	If LF Score = 7 to 8 (high score)	3
	If age is 36 to 39 years	1		If LF Score = 4 to 6 (moderate score)	2
	If age is ≥ 40 years	0		If LF Score = 1 to 3 (low score)	0
Years Infertile	If years infertile is ≤ 3	2	AFS Endometriosis Score		
	If years infertile is > 3	0	If AFS Endometriosis Lesion Score is < 16	1	
Prior Pregnancy	If there is a history of a prior pregnancy	1	If AFS Endometriosis Lesion Score is ≥ 16	0	
	If there is no history of prior pregnancy	0	AFS Total Score		
Total Historical Factors			Total Surgical Factors		
EFI = TOTAL HISTORICAL FACTORS + TOTAL SURGICAL FACTORS:			EFI Score		

ESTIMATED PERCENT PREGNANT BY EFI SCORE



© Keckstein



**PERITONEUM**

**P** Peritoneum

■ Sum of all diameters of both sides

**P1**  $\Sigma < 3$  cm

**P2**  $\Sigma 3-7$  cm

**P3**  $\Sigma > 7$  cm

**OVARY**

**O** Ovary

■ Sum of all diameters of each side

left right

**O1**  $\Sigma < 3$  cm

**O2**  $\Sigma 3-7$  cm

**O3**  $\Sigma > 7$  cm

**T** Tubo ovarian condition

■ Adhesions  
■ Motility  
■ Patency test

left right

**T1** pelvic sidewall

**T2** pelvic sidewall uterus

**T3** pelvic sidewall uterus bowel

**DEEP ENDOMETRIOSIS**

**A** Rectovaginal space  
Vagina  
Cul de sac  
■ Largest diameter

**B** Sacrouterine ligg.  
Cardinal ligament  
Pelvic sidewall  
■ Largest diameter each side

left right

**C** Rectum  
■ Largest diameter

**A1**  $< 1$  cm

**A2**  $1-3$  cm

**A3**  $> 3$  cm

**B1**  $< 1$  cm

**B2**  $1-3$  cm

**B3**  $> 3$  cm

**C1**  $< 1$  cm

**C2**  $1-3$  cm

**C3**  $> 3$  cm

**F** <sup>A</sup>denomyosis  
**F** <sup>B</sup>ladder  
**F** <sup>I</sup>ntestinum  
**F** <sup>U</sup>reter

**F** (.....) Location

- Diaphragm
- Lung
- Nerve
- .....

**P** \_\_\_\_\_

**O** \_\_\_\_\_ / \_\_\_\_\_  
left right

**T** \_\_\_\_\_ / \_\_\_\_\_  
left right

**A** \_\_\_\_\_

**B** \_\_\_\_\_ / \_\_\_\_\_  
left right

**C** \_\_\_\_\_

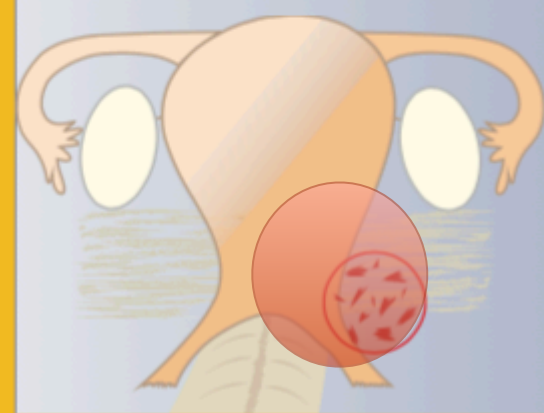
**F** \_\_\_\_\_  
(Location)



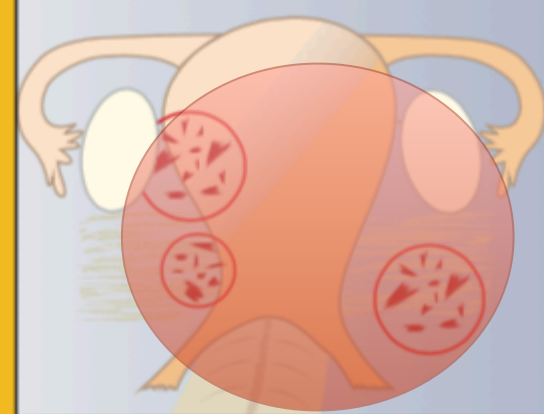
# PERITONEUM

**P** Peritoneum  
 ■ Sum of all diameters

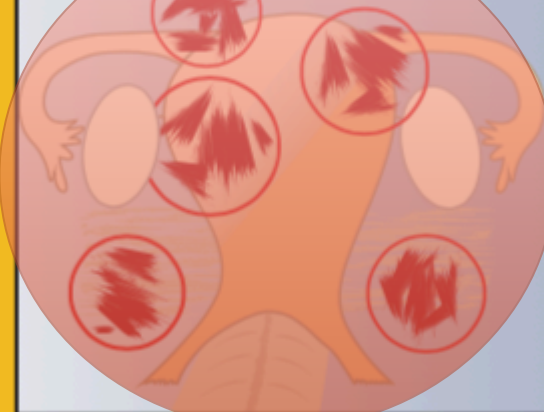
**P1**  $\Sigma < 3 \text{ cm}$



**P2**  $\Sigma 3-7 \text{ cm}$



**P3**  $\Sigma > 7 \text{ cm}$



## UPDATED #ENZIAN- CLASSIFICATION

### PERITONEAL ENDOMETRIOSIS = P

	cm
P 1	<3
P 2	3-7
P 3	>7

1. Virtual area of the circle in which all lesions fit in

2. Diameter of circle (cm)

3. Number of foci is not respected

4. USD and MRI not to be used for P

5. All superficial lesions , <5 mm (visceral and parietal peritoneum)

**P** \_\_\_\_\_



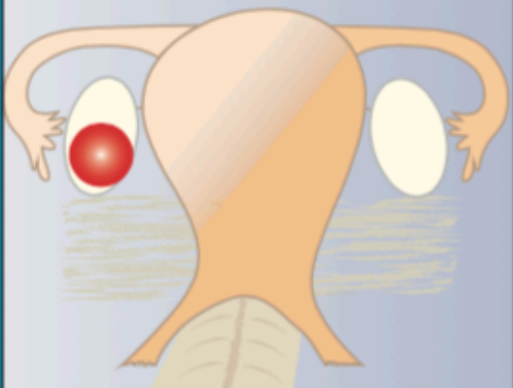
**OVARY**

**O** Ovary

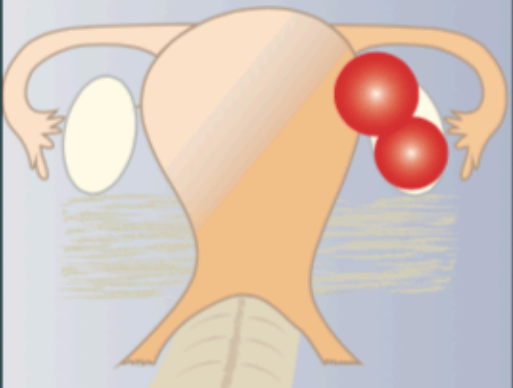
■ Sum of all diameters

left right

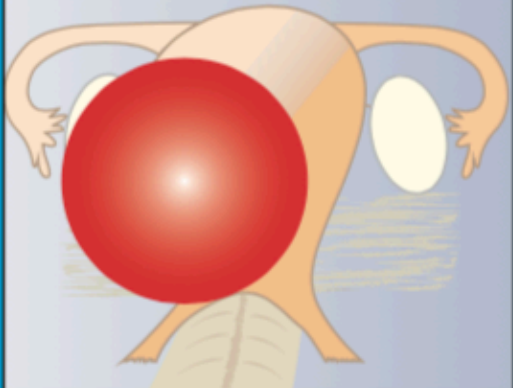
**O1**  $\Sigma < 3$  cm



**O2**  $\Sigma 3-7$  cm



**O3**  $\Sigma > 7$  cm



**O** /

left right

m ovary is missing  
x unknown / not visible

**UPDATED** #ENZIAN- CLASSIFICATION

**OVARIAN-ENDOMETRIOSIS = 0**

	Diameter (cm)	l / r
<b>0 1</b>	< 3	/
<b>0 2</b>	3-7	/
<b>0 3</b>	>7	/

- Sum of maximal diameters of all endometriotic lesions
- left und right separately annotated (l / r ).
- Superficial peritoneal lesions (P) on the ovarian surface are not respected
- m ovary missing
- x unknown/ not visible
- Ultrasound: use IOTA criteria, maximal diameter in cm



# TUBE

**T** Tubal ovarian condition

- Adhesions
- Motility
- Patency test

left                      right

**T1** pelvic sidewall



**T2** pelvic sidewall uterus



**T3** pelvic sidewall uterus bowel, USL



**UPDATED** #ENZIAN- CLASSIFICATION  
ADHESIONS - TUBOOVARIAN UNIT

T	Descriptive	l / r
T1	<b>mild,</b> tuboovarian unit adhesive to <b>pelvic sidewall</b>	/
T2	<b>moderate</b> <b>T1 and adhesive to uterus</b>	/
T3	<b>severe</b> <b>T2 and adhesive to bowel /USL</b>	/

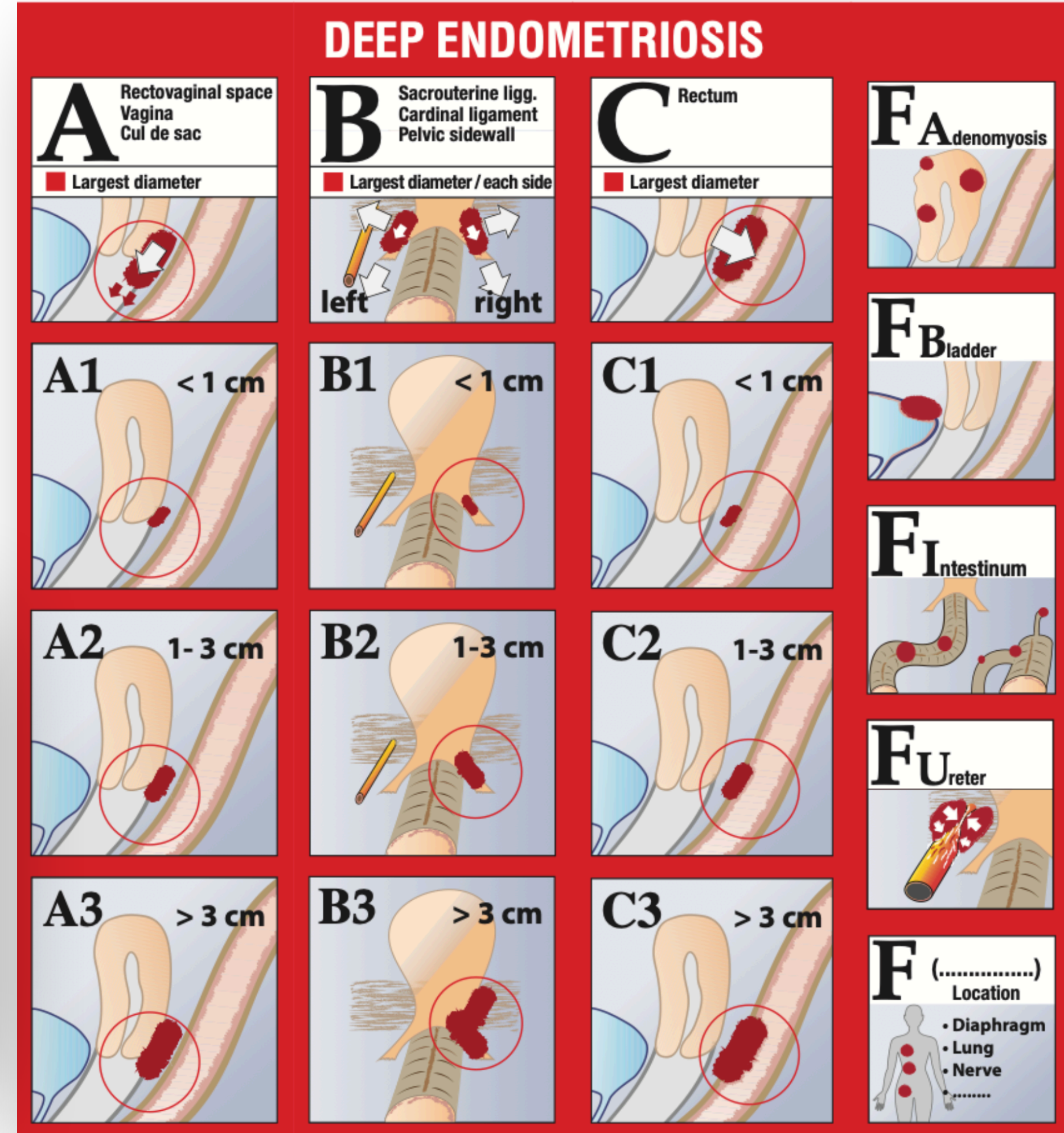
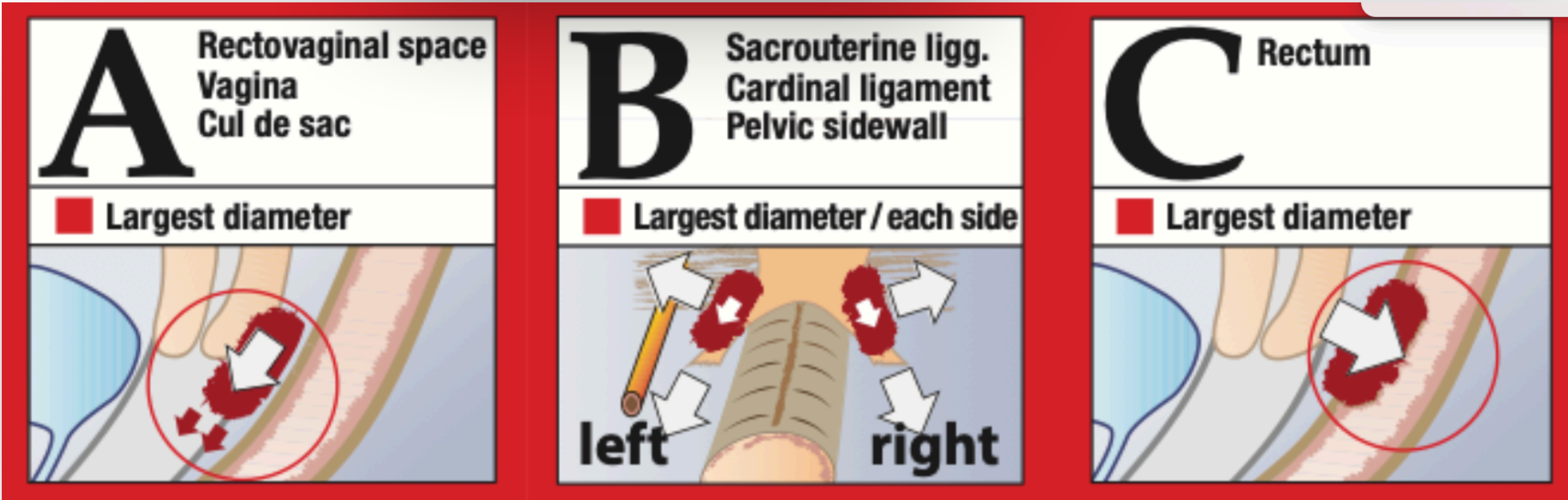
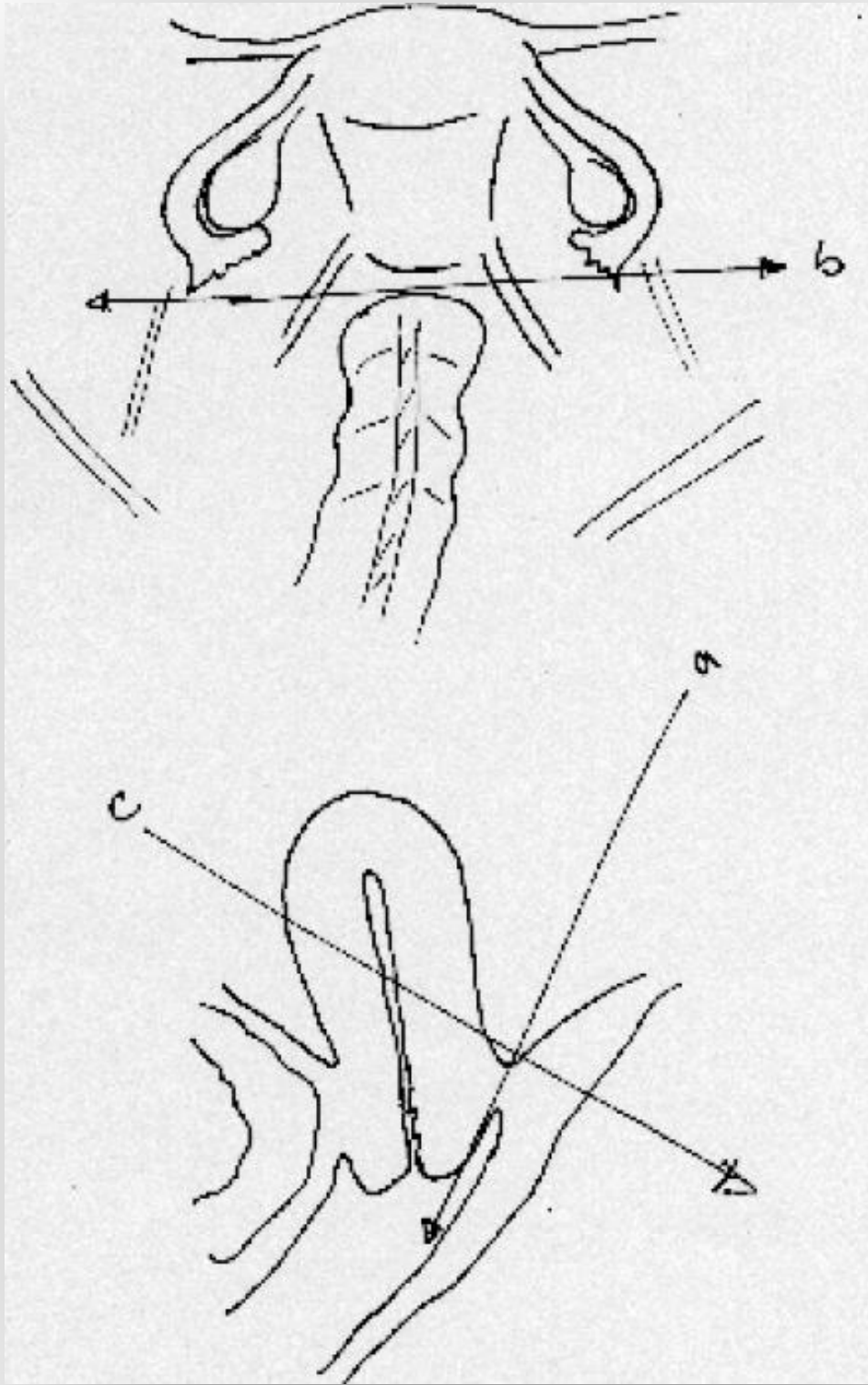
- Classify left (l) and right (r) separately
- Criteria for classification are:
  - adhesions,
  - Patency test
- m            tube is missing
- x            unknown/not visible
- + or -        Patency test: pos. or neg.

**T** \_\_\_\_\_ / \_\_\_\_\_  
left                      right

m    tube is missing  
x    unknown / not visible  
+ or - Patency test

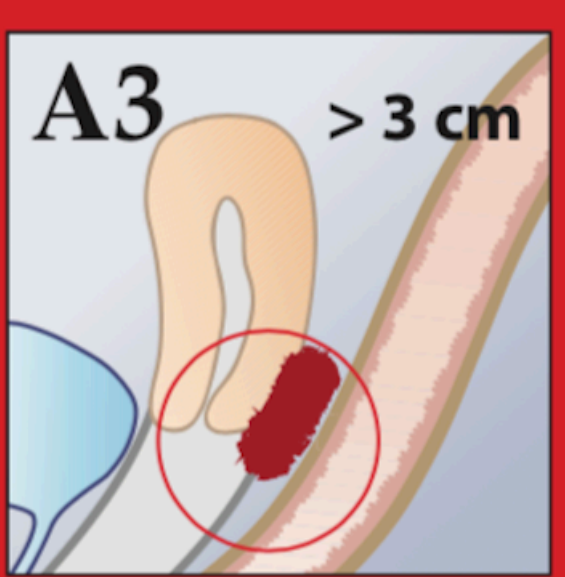
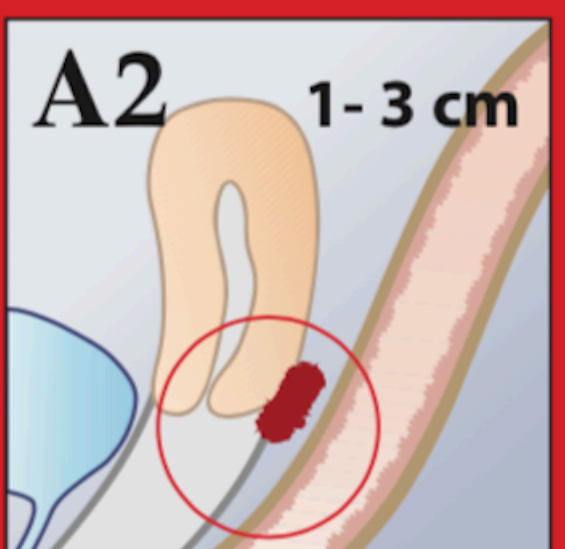
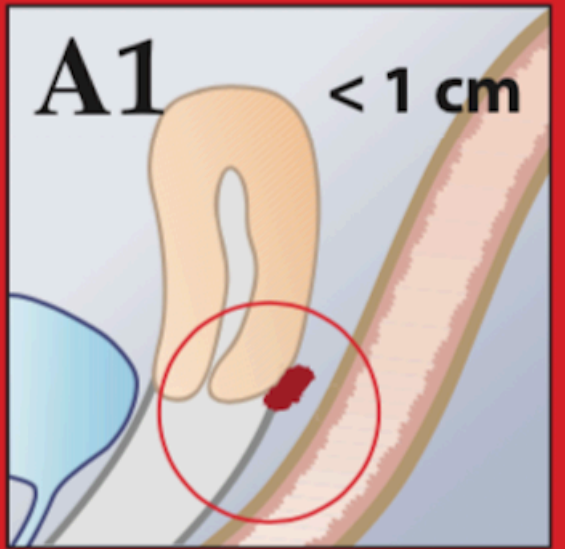


ENZIAN Klassifikation (2002, 2012)





**A** Rectovaginal space  
Vagina  
■ Largest Diameter



**UPDATED** #ENZIAN- CLASSIFICATION

**A COMPARTMENT**  
(VAGINA, RECTOVAGINAL SEPTUM - RVS)

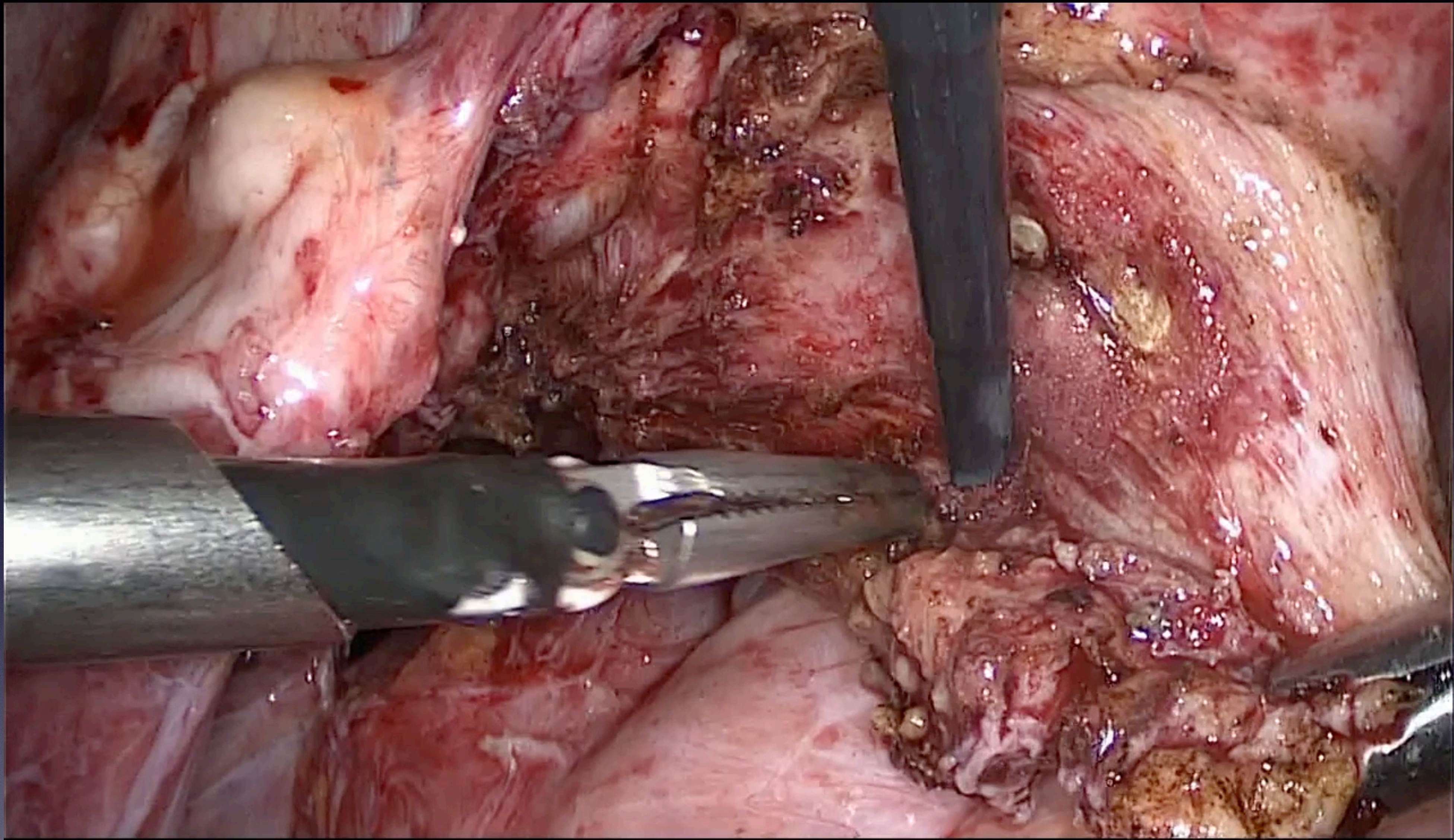
Length (cm)	
A 1	< 1
A 2	1-3
A 3	> 3

- Maximal diameter (cm) measured in sagittal, i.e. midline section
- Ultrasound: use IDEEA definition of vagina and RVS



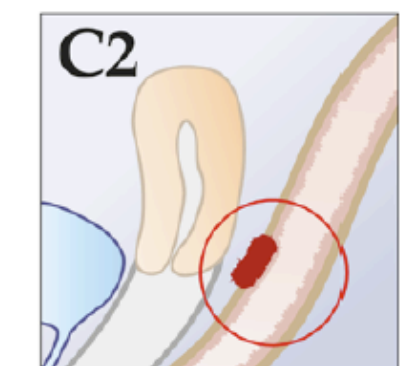
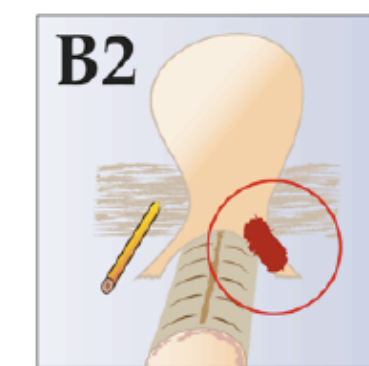
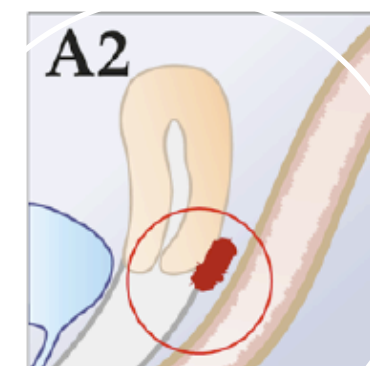
**A** \_\_\_\_\_



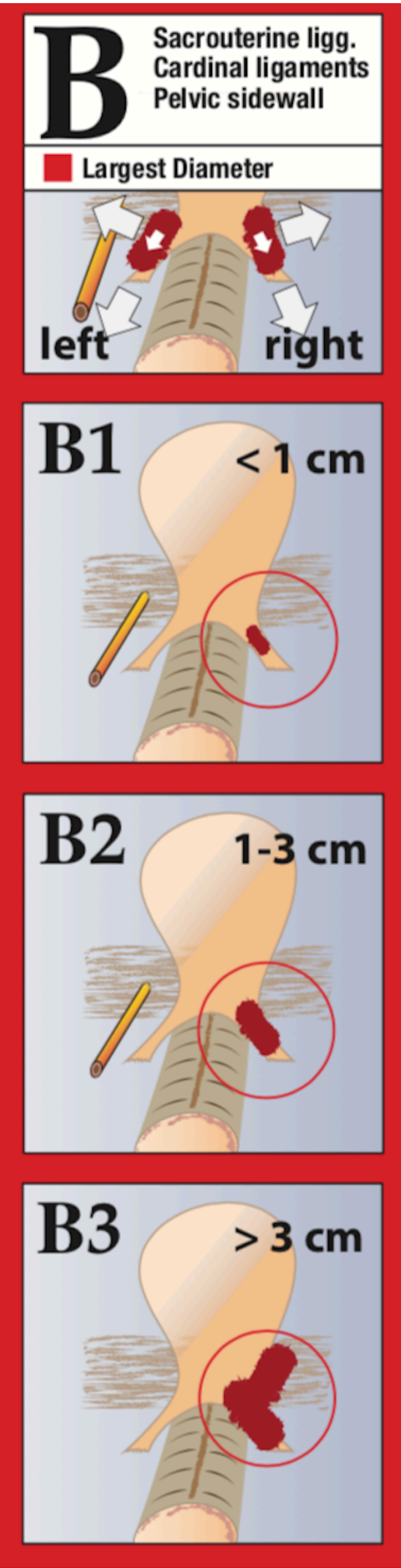


Enzian A2

2  
1 - 3 cm







**UPDATED** #ENZIAN- CLASSIFICATION

**B COMPARTMENT**  
(UTEROSACRAL/ CARDINAL LIGAMENTS, PELVIC SIDEWALL)

	Length (cm)	l / r
<b>B 1</b>	< 1	/
<b>B 2</b>	1-3	/
<b>B 3</b>	>3	/

- Maximal diameter , measured in lateral/ laterodorsal direction
- Annotation of the left (l) and right (r) side is separated by a slash ( / )
- **Ultrasound: oblique section**



**B** \_\_\_\_\_ / \_\_\_\_\_  
left right



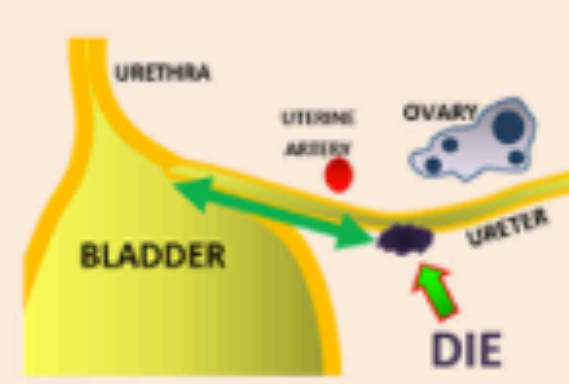
**ANTERIOR  
COMPARTMENT**



BLADDER BASE



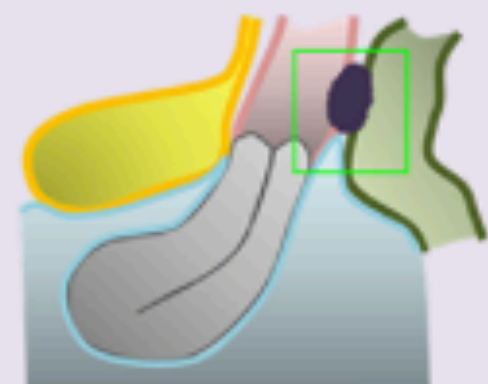
BLADDER DOME



URETER



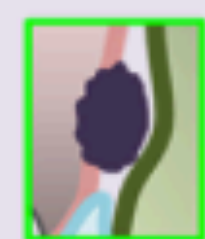
UTEROVESICAL OBLITERATION



RECTOVAGINAL  
SEPTUM



SEPTUM  
ONLY



VAGINAL  
WALL



RECTAL  
WALL

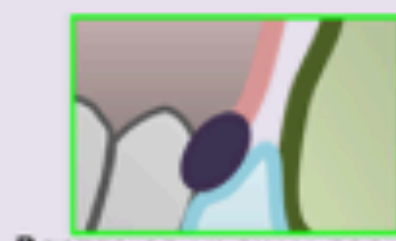


VAGINA  
& RECTUM



- 1 LOWER (retoperitoneal) ANTERIOR RECTAL DIE LESIONS
- 2 UPPER (visible at laparoscopy) ANTERIOR RECTAL DIE LESIONS
- 3 RECTOSIGMOID JUNCTION DIE LESIONS
- 4 ANTERIOR SIGMOID DIE LESIONS

**POSTERIOR  
COMPARTMENT**



POSTERIOR VAGINAL FORNIX



'DIABOLO-LIKE' NODULE



UTEROSACRAL LIGAMENT



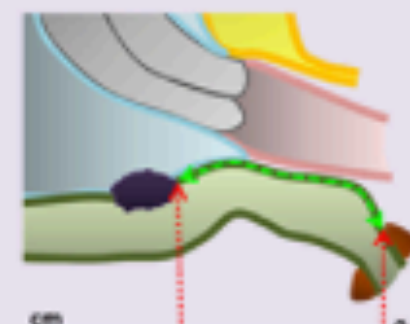
TORUS UTERINUS



POUCH OF DOUGLAS OBLITERATION



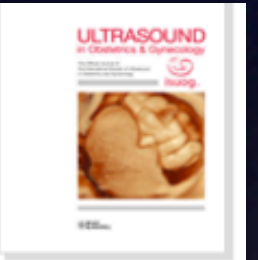
RECTUM & RECTOSIGMOID



Consensus Statement

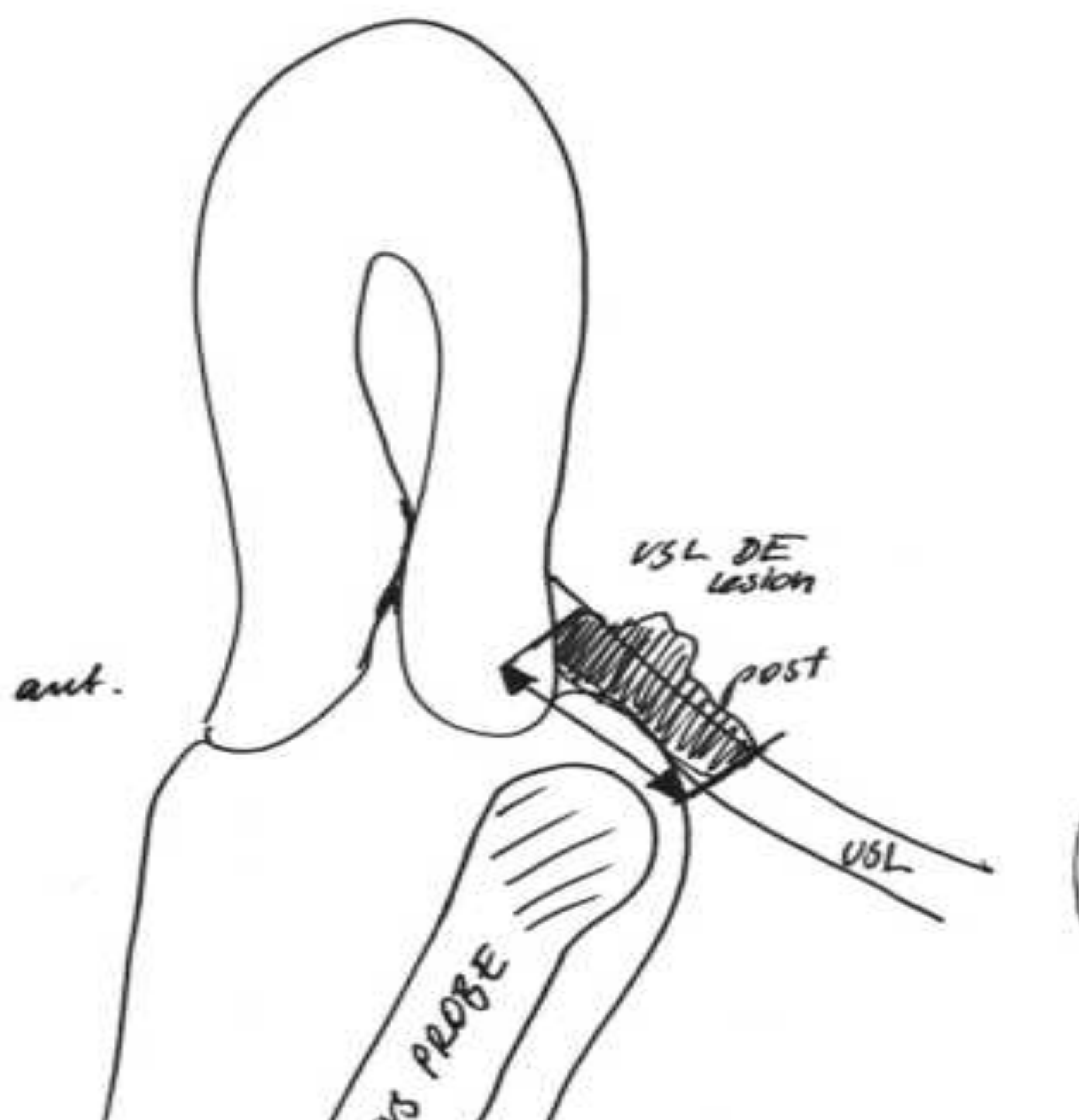
**Systematic approach to sonographic evaluation of the pelvis in women with suspected endometriosis, including terms, definitions and measurements: a consensus opinion from the International Deep Endometriosis Analysis (IDEA) group**

S. Guerriero, G. Condous, T. van den Bosch, L. Valentin, F. P. G. Leone, D. Van Schoubroeck, C. Exacoustos, A. J. F. Installé, W. P. Martins, M. S. Abrao, G. Hudelist, M. Bazot, J. L. Alcazar, M. O. Gonçalves, M. A. Pascual, S. Ajossa, L. Savelli, R. Dunham, S. Reid, U. Menakaya, T. Bourne, S. Ferrero, M. Leon, T. Bignardi, T. Holland, D. Jurkovic, B. Benacerraf, Y. Osuga, E. Somigliana, D. Timmerman

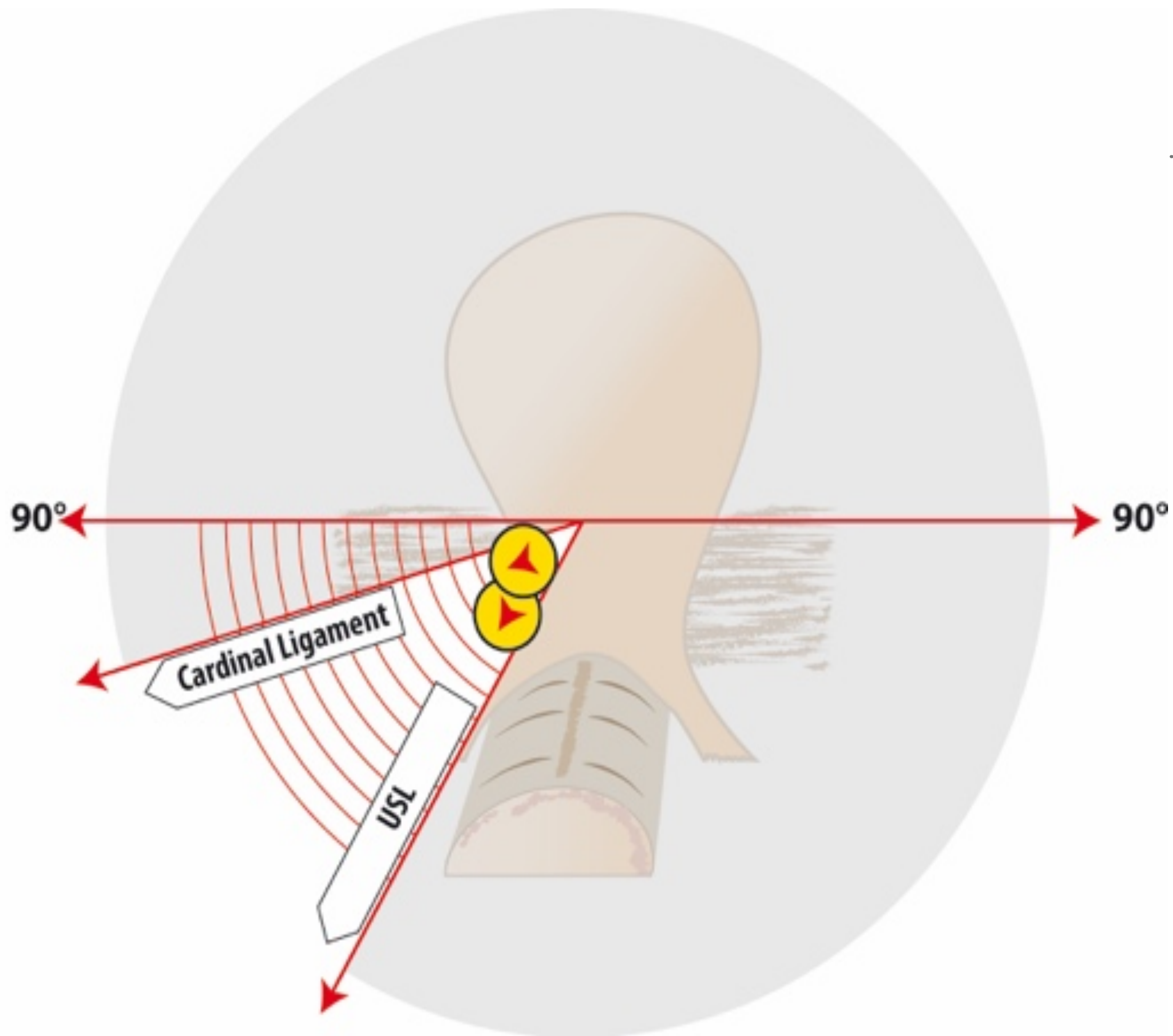


View issue TOC  
Volume 48, Issue 3  
September 2016  
Pages 318-332

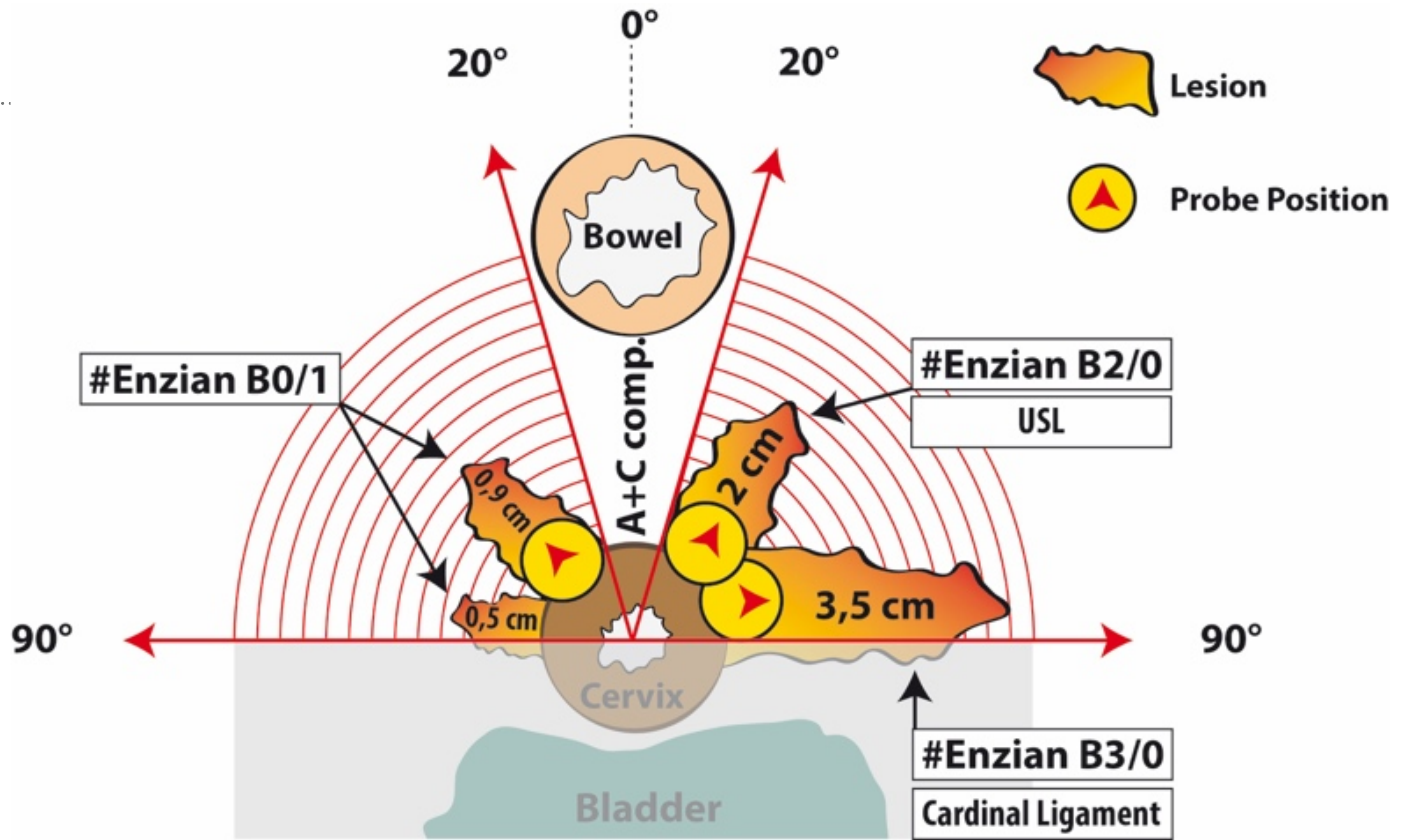








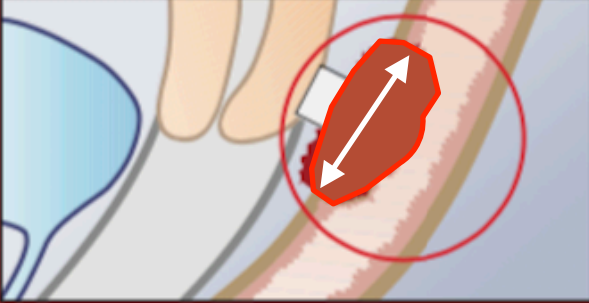




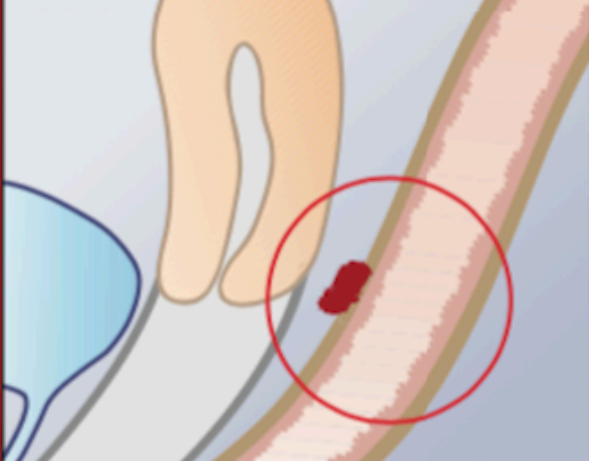


**C** Rectum

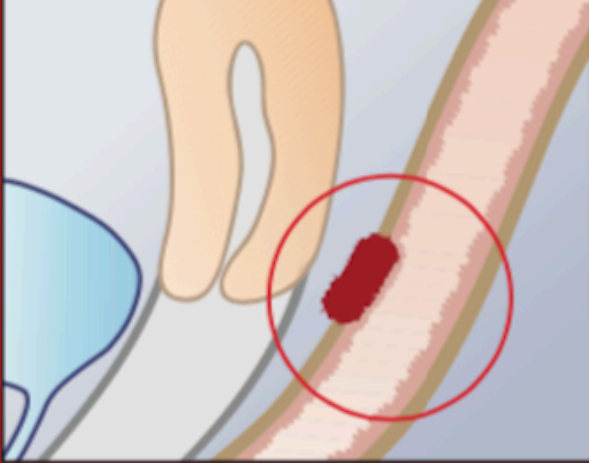
■ Largest Diameter



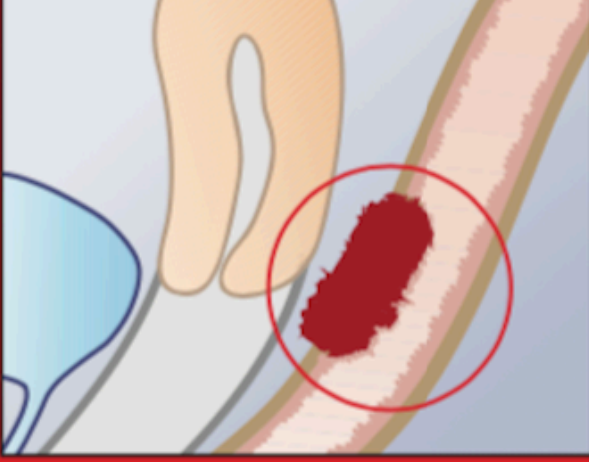
**C1** < 1 cm



**C2** 1-3 cm



**C3** > 3 cm



**UPDATED** #ENZIAN- CLASSIFICATION

**C** COMPARTMENT (RECTUM)

Lenght (cm)

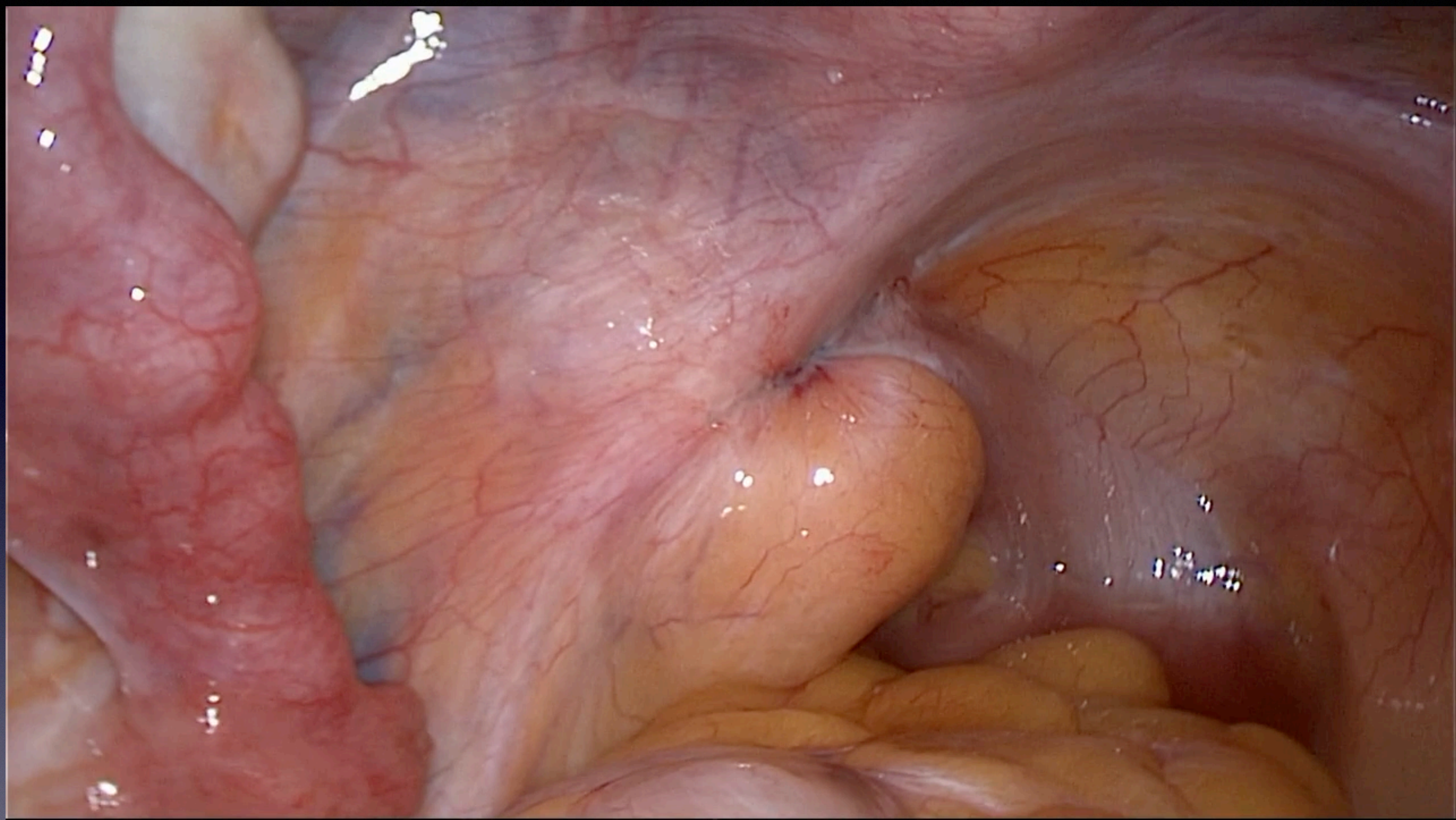
<b>C 1</b>	≤ 1
<b>C 2</b>	1-3
<b>C 3</b>	>3

➤ Maximal diameter (cm) of the lesion in sagittal section

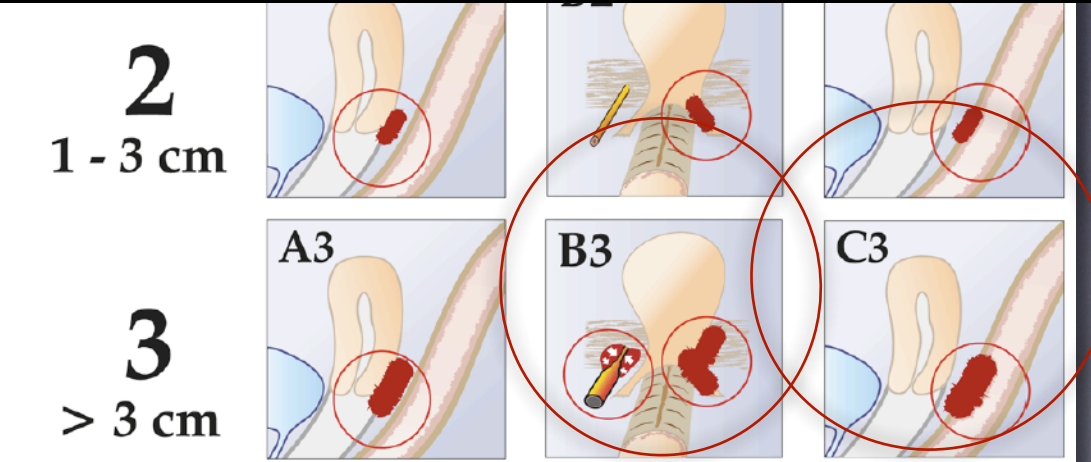
➤ Lesion infiltrates muscularis

➤ **Ultrasound: use IDEA definition for rectum and longitudinal measurement of rectal DE**

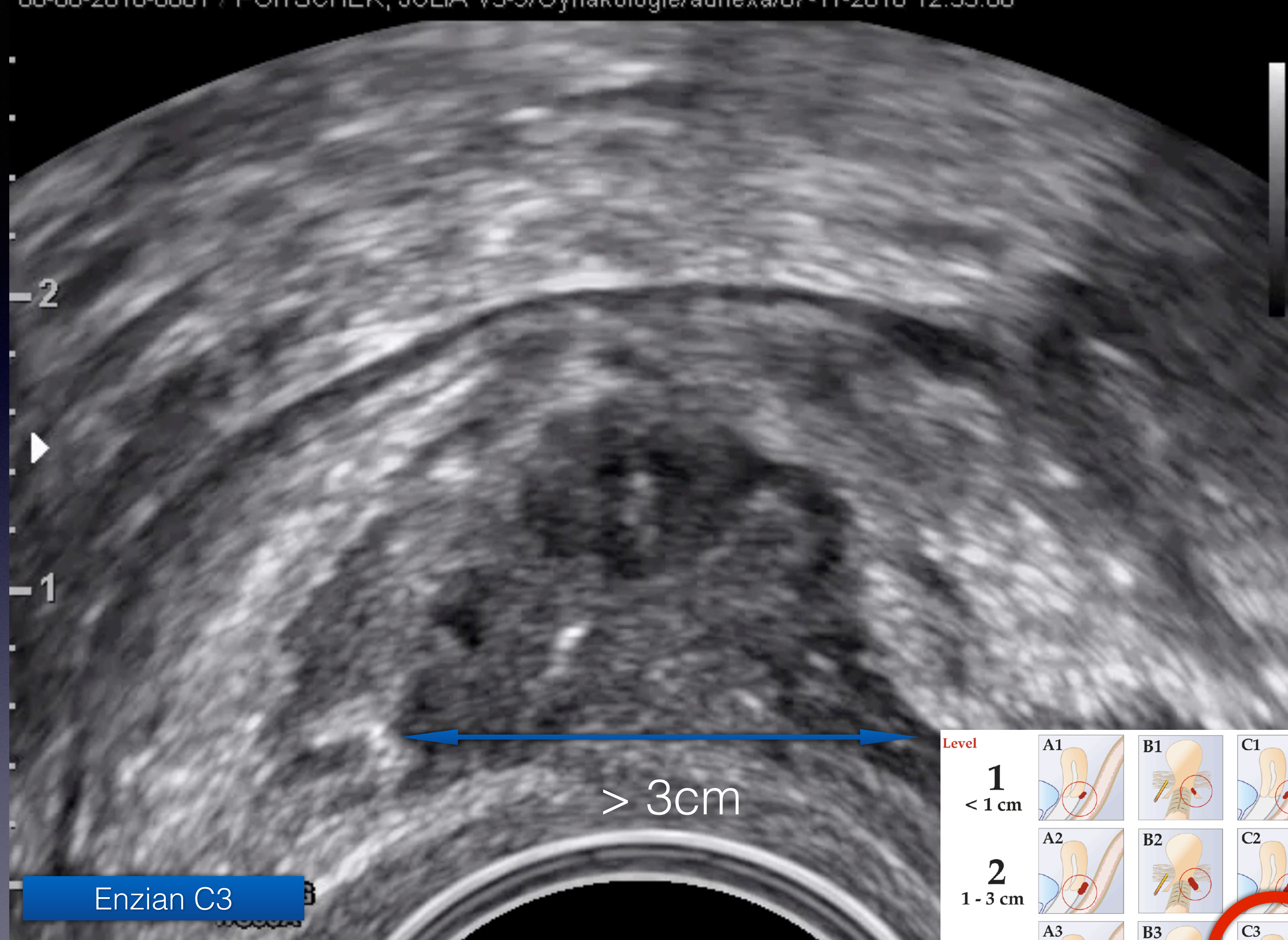




r-ASRM I — Enzian B3/0,C3





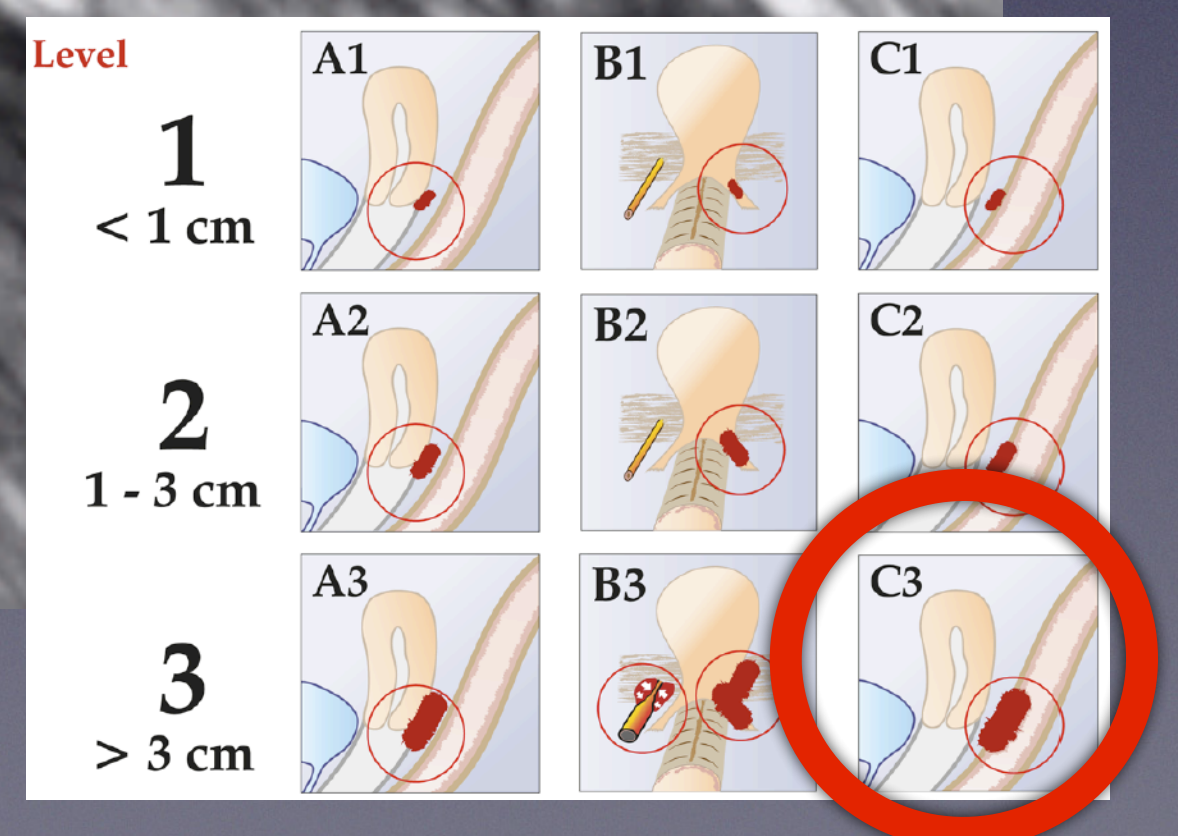


-2

-1

> 3cm

Enzian C3



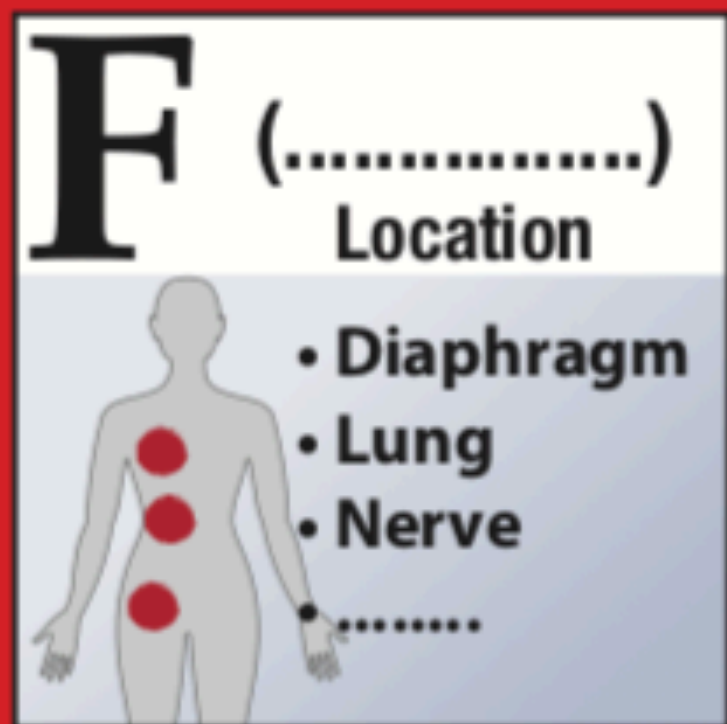


**UPDATED** #ENZIAN- CLASSIFICATION

**URETER ENDOMETRIOSIS = FU**

➤ Side 1 (left) / (right)

➤ Ultrasound: Dilatation of ureter > 8mm



**F** \_\_\_\_\_  
(Location)





**UPDATED** #ENZIAN- CLASSIFICATION

OTHER BOWEL ENDOMETRIOSIS = FI (SIGMA, APPENDIX, ....)



- Previously - FI.
- Describes bowel endometriosis (>16 cm distance from the anal verge) **excluding rectum**
- The affected organ will added in parentheses





## ADENOMYOSIS = FA



- Only given in case of clinically high-grade suspicion of adenomyosis.
- Describes adenomyosis pre- or intraoperatively and / or histologically
- **Ultrasound : use MUSA criteria**

- **FA = adenomyosis;**
  - Surgical findings which are obvious for adenomyosis (appearance, consistency, size)
  - Histologic diagnosis
  - Ultrasound signs

**Ultrasound :** Adenomyosis will be assessed sonographically using the **Morphological Uterus Sonographic Assessment (MUSA)** (17) criteria . But the classification does not respect the various appearance of adenomyosis in detail.

➤



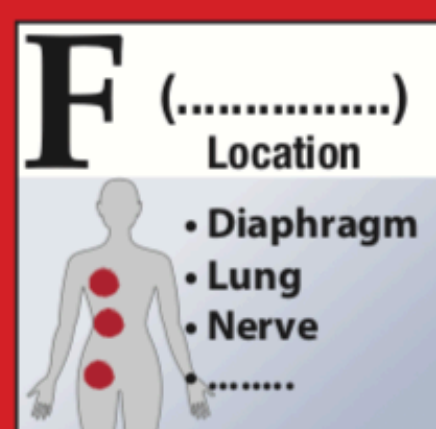


FA

C3

Enzian C3, FA





**UPDATED** #ENZIAN- CLASSIFICATION

**F (...)** OTHER EXTRAGENITAL LOCALISATION

- ▶ Instead of previously **O** for "other" in brackets cite the localization directly
- ▶ Example: **F(umbilicus)** or **F(diaphragm right)** or **F (plexus sacralis, right)**

**F** \_\_\_\_\_  
(Location)





**P** \_\_\_\_\_  
**O** \_\_\_\_\_ / \_\_\_\_\_  
m ovary is missing  
x unknown / not visible  
left / right

**T** \_\_\_\_\_ / \_\_\_\_\_  
m tube is missing  
x unknown / not visible  
 + or - Patency test  
left / right

**A** \_\_\_\_\_  
**B** \_\_\_\_\_ / \_\_\_\_\_  
left / right

**C** \_\_\_\_\_  
**F** \_\_\_\_\_  
 (Location)

The spelling of the annotation

- Individual compartments are written with large letters in an order
  - P , O ( / ), A , B ( / ), C , F ( ) .....
- The individual stages (numbers) according to the specification are written directly after the letter.  
 Number 0 in case of no involvement.  
 There is a comma between each individual compartment.
- Paired organs (Ovary, Tube, B (USL, parametrium),) are annotated accordingly to the side.  
 A slash separates left /right ( / ).
- All F lesions are only written in case if they are involved
- F(..) such as abdominal wall, diaphragma, nerve e.g.. are written in brackets.



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➤ **Example :**

- Superficial endometriosis on the *peritoneum* (P) < 3cm in sum = *P1*
- No **ovarian (O)** endometriosis = **O0/0**
- No adhesions = **T0/0**
- No lesion in the **A** compartment = **A0**
- *Deep Endometriosis (B)* left *USL* < 1cm, right *USL* 1-3cm, = *B1/2*
- *Hydroureter* right(*FU*) = *FUright*
- Endometriosis in the *appendix (FI)* = *FI(App.)*



**Annotation of **only the affected** compartments and organs:**

**or**

**Annotation of **all organs and compartments****

**#Enzian P1, B1/2, FU(right), FI(Appendix)**

**#Enzian P1, O0/0, T0/0, A0, B1/2, C0, FU(right), FI(Appendix)**



#Enzian P2, O2/1, T3/3, A3, B2/3, C3, FU(r)

????????????

