





8TH CONGRESS OF THE SOCIETY OF ENDOMETRIOSIS AND UTERINE DISORDERS



Endometriosis Sonography

Kh . Shadjoo

MD

Ob&Gyn

Fellowship of Advanced Laparoscopy (Endometriosis)

Avicenna Endometriosis Clinic



The Impact of Laparoscopic Surgery for Endometriosis on Patients Symptoms

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Background

Endometriosis is a chronic benign gynecological disease that unfortunately impairs the quality of life of affected women. Laparoscopy is the most common surgical procedure for diagnosing and treating endometriosis as that relieves the associated painful symptoms in most cases. However, it does not make it clear how long the therapeutic benefits would last. The aim of this study was to evaluate pain relief after laparoscopic removal of endometriosis over a 2-year period of postoperative follow-up.

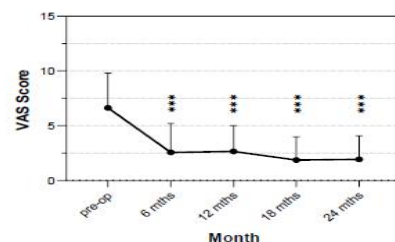
Methods

A population-based registry study included one hundred and twenty-two symptomatic women with endometriosis who underwent laparoscopic surgery for endometriosis between 2019–2021. Prior to surgery, a visual analog scale was used to assess pain intensity, as well as after 6, 12, 18, and 24 months after surgery.

Results

The mean visual analog scale score for dysmenorrhea decreased from 6.6 ± 3.1 at baseline to 2.5 ± 2.6 at 6 month ($p < 0.001$), 2.6 ± 2.3 ($p < 0.001$) at 12 month, 1.8 ± 2.1 ($p < 0.001$) at 18 month, and 1.9 ± 2.1 ($p < 0.001$) at 24-month post operation.

Figure 1. Dysmenorrhea visual analog scale (VAS) scores significantly improved after surgery.



Before surgery, mean visual analog scale score for dyspareunia was 3.4 ± 3.7 , but decreased to 1.9 ± 2.4 after 6-month ($p < 0.01$), 1.5 ± 2.1 after 12-month ($p < 0.01$), 1.3 ± 2.02 after 18-month ($p < 0.001$), and 2.1 ± 2.6 after 24-month ($p < 0.005$) post surgery. The mean visual analog scale score for noncyclic pelvic pain showed reductions after 6 months (2.2 ± 3.7 to 1.5 ± 2.3), although there was a recurrence.

Figure 2. Dyspareunia visual analog scale (VAS) scores significantly improved after surgery.

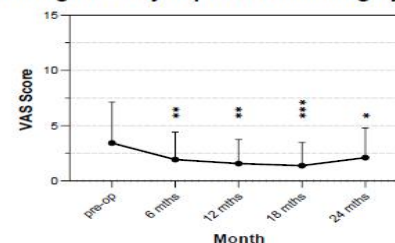


Table 1. Summary of women's symptoms before and after laparoscopic surgery for endometriosis.

	pre-op	6 mths	12 mths	18 mths	24 mths
Quantitative evolution of symptoms (VAS) (Mean \pm SD)					
Dysmenorrhea	6.6 \pm 3.1 (122)	2.5 \pm 2.6** (of 58)	2.6 \pm 2.3*** (of 48)	1.8 \pm 2.1*** (of 46)	1.9 \pm 2.1*** (of 47)
Dyspareunia	3.4 \pm 3.7 (122)	1.9 \pm 2.4** (of 58)	1.5 \pm 2.1** (of 46)	1.3 \pm 2.02** (of 45)	2.1 \pm 2.6* (of 46)
Non-cyclic pain	2.2 \pm 3.7 (122)	1.5 \pm 2.3 (of 58)	2.6 \pm 2.8 (of 48)	1.9 \pm 2.9 (of 45)	2.2 \pm 2.8 (of 45)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Conclusion

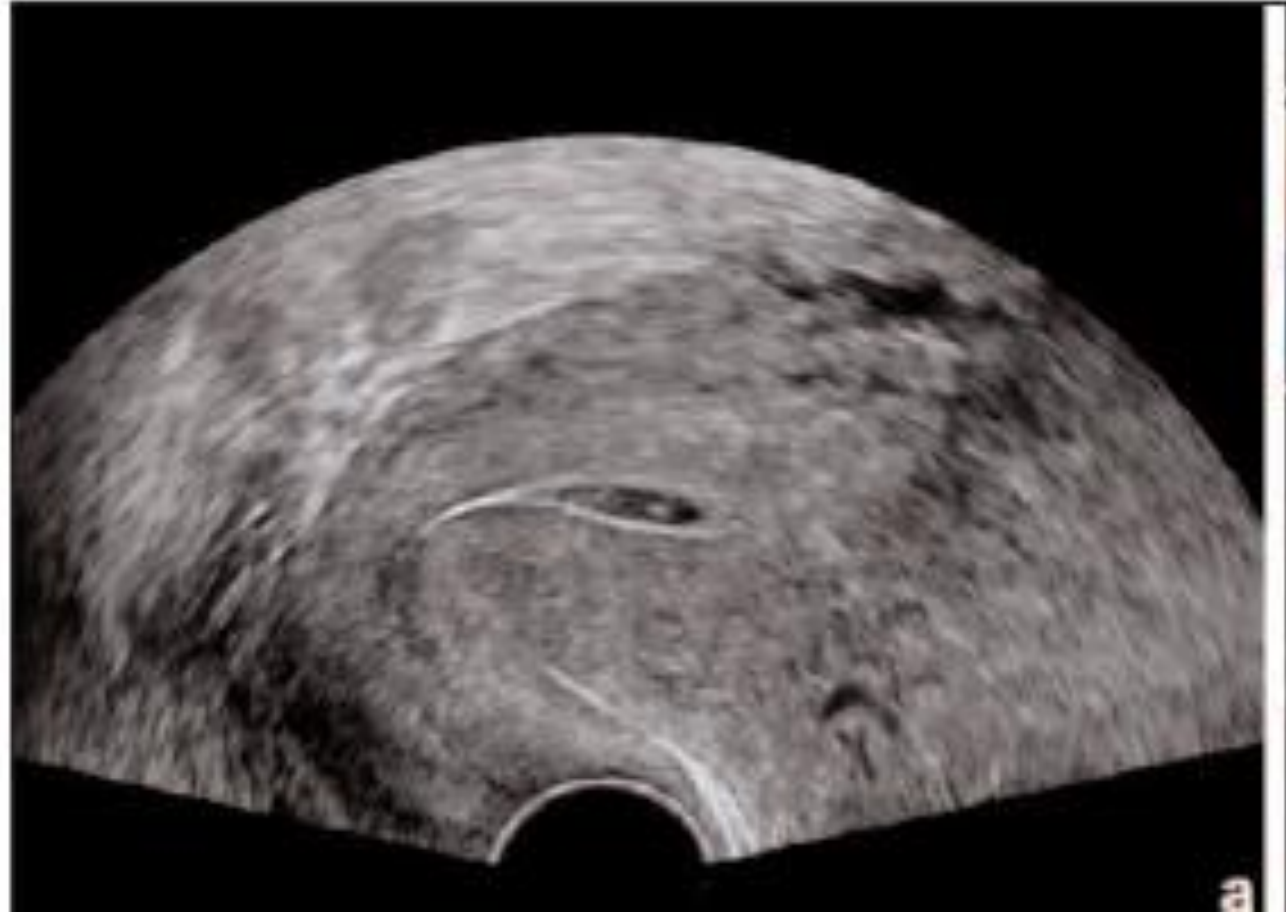
In many women with preoperative symptoms, laparoscopic excision of endometriosis significantly improves dysmenorrhea and dyspareunia for up to 2 years after surgery. Therefore, women with endometriosis who have severe pain complaints may benefit from conservative laparoscopic surgery.

References

- Aurélien Comptour, Pauline Chauvet, Michel Canis, Anne-Sophie Gremeau, Jean-Luc Pouly, Benoit Rabrischong, Bruno Pereira, Nicolas Bourdel, Patient quality of life and symptoms following surgical treatment for endometriosis, The Journal of Minimally Invasive Gynecology (2019).
- Busacca M, Bianchi S, Agnoli B, Candiani M, Calla C, De Marnis S, Vignali M. Follow-up of laparoscopic treatment of stage III-IV endometriosis. J Am Assoc Gynecol Laparosc. 1999 Feb;6(1):55-8. doi: 10.1016/s1074-3804(99)50411-3. PMID: 9971852.

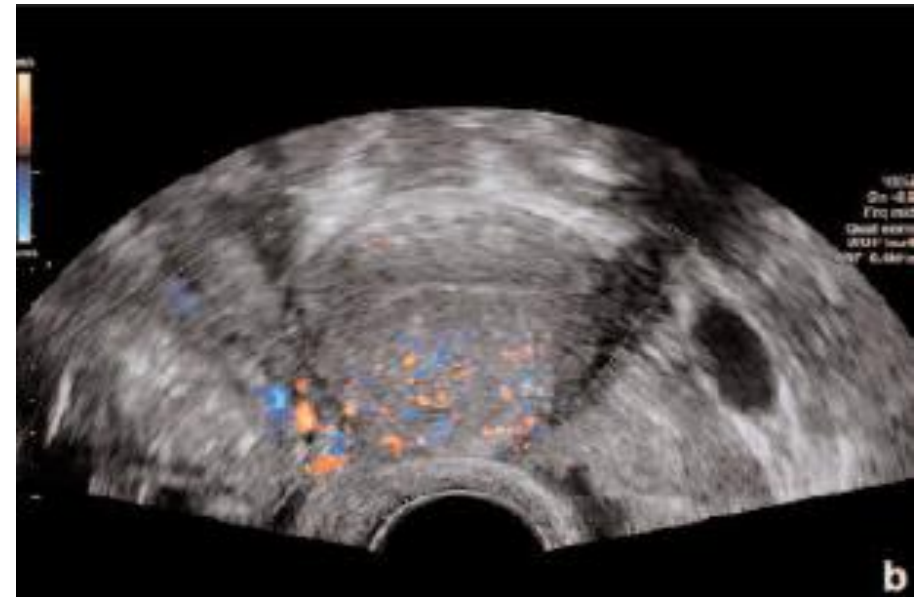
- ADENOMYOSIS

1-global enlargement of uterus



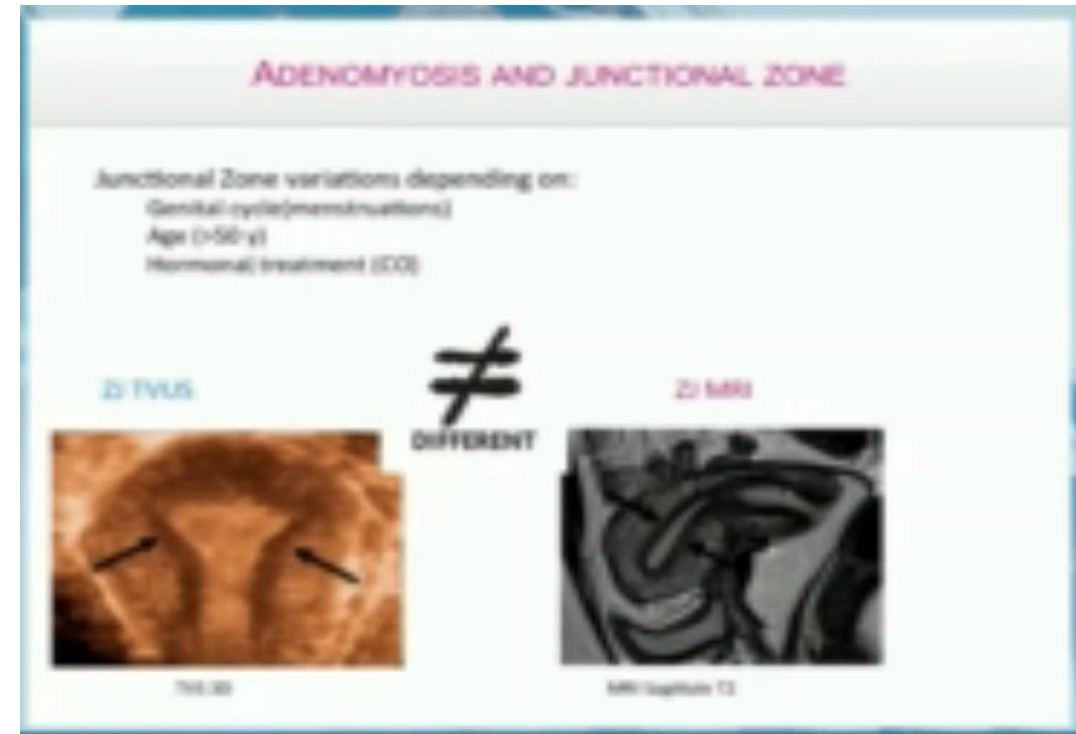
2-pseudo-widening sign”.

- asymmetric thickness the anterior and posterior walls of the uterus

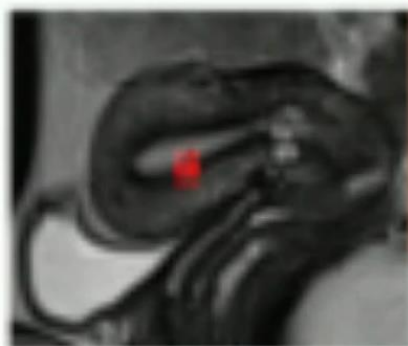


3- The junctional zone is not clearly visible

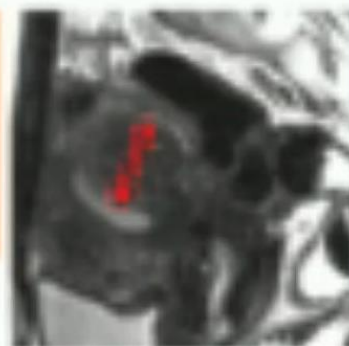
- The myometrium shows hyperechoic linear near the endometrial–myometrial interface
- the presence of ectopic endometrial tissue striations



MRI / DIAGNOSIS PERFORMANCE



- Spots hyper T2
- Thickening $\geq 12\text{mm}$
- Ratio $\geq 1/\text{Myometrium}$
= 40%



MRI: SE: 86%/ SP:86%

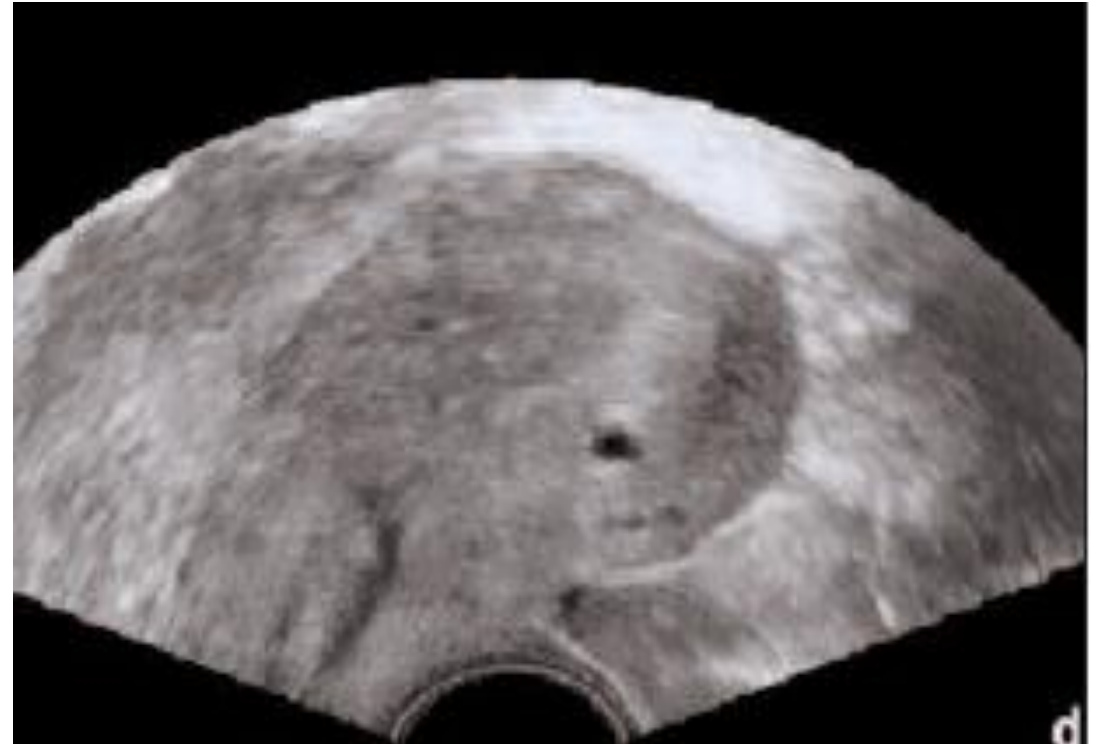
**Combination of these 3 criteria
accuracy of 85.5%**

MRI TIMING:mense?



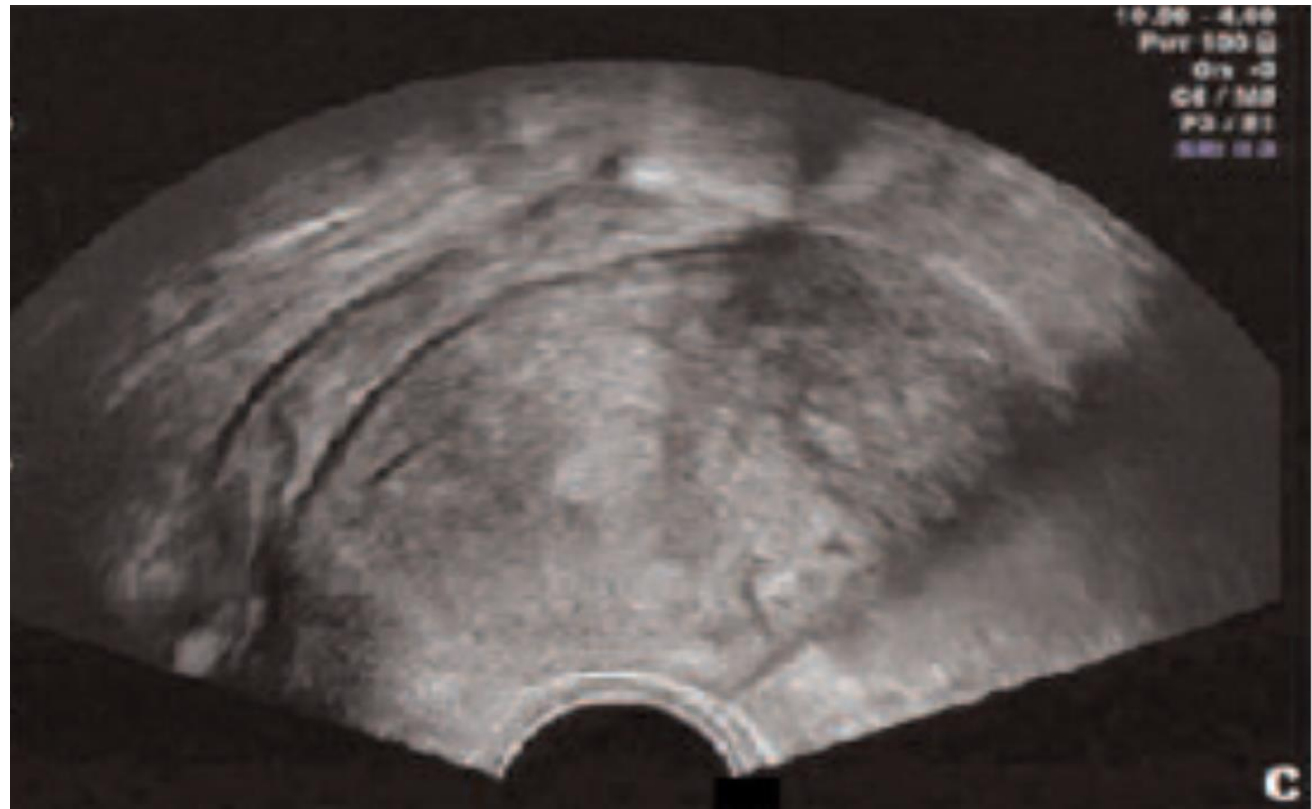
4-myometrial cysts

- The myometrium can present cysts (especially located in the so-called subendometrial zone)
- defined as a round anechoic areas sized 1-7 mm.



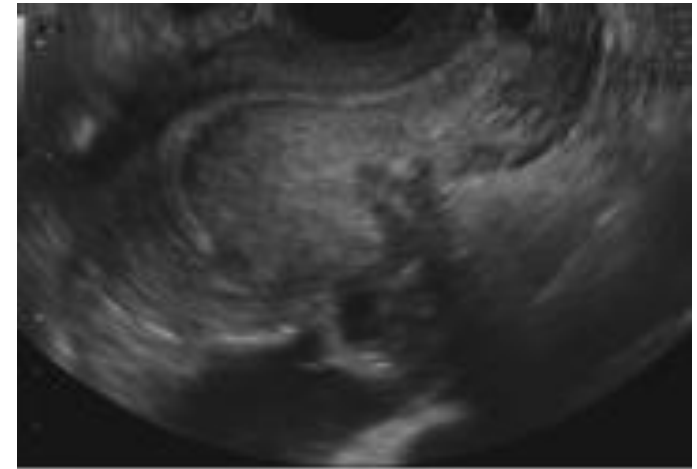
5-heterogeneous myometrium

decreased or increased
echogenicity .



6- the question mark form of the uterus”

- The corpus uteri is flexed backwards the fundus of the uterus faces the posterior compartment
- and the cervix is directed frontally towards the bladder”.
- high sensitivity and specificity (92% and 75%, respectively



7- pseudo-endometrial thickening

- junctional zone alteration (mimics endometrial hyperplasia)
- Sono hysterosalpingography :
- useful tool in the differential diagnosis of such a peculiar pattern, referred to as “pseudo-endometrial thickening”

Subtypes of adenomyosis

- Focal:
 - Three subtypes according to location:
 - outer, middle, and inner myometrium
- Diffuse:
 - JZmax of at least 12 mm
 - wallthickness/JZ ratiomax > 40%
- Adenomyoma

CLASSIFICATION- CHAPRON ET AL: 2017
ACCURACY ADENOMYOSIS MRI



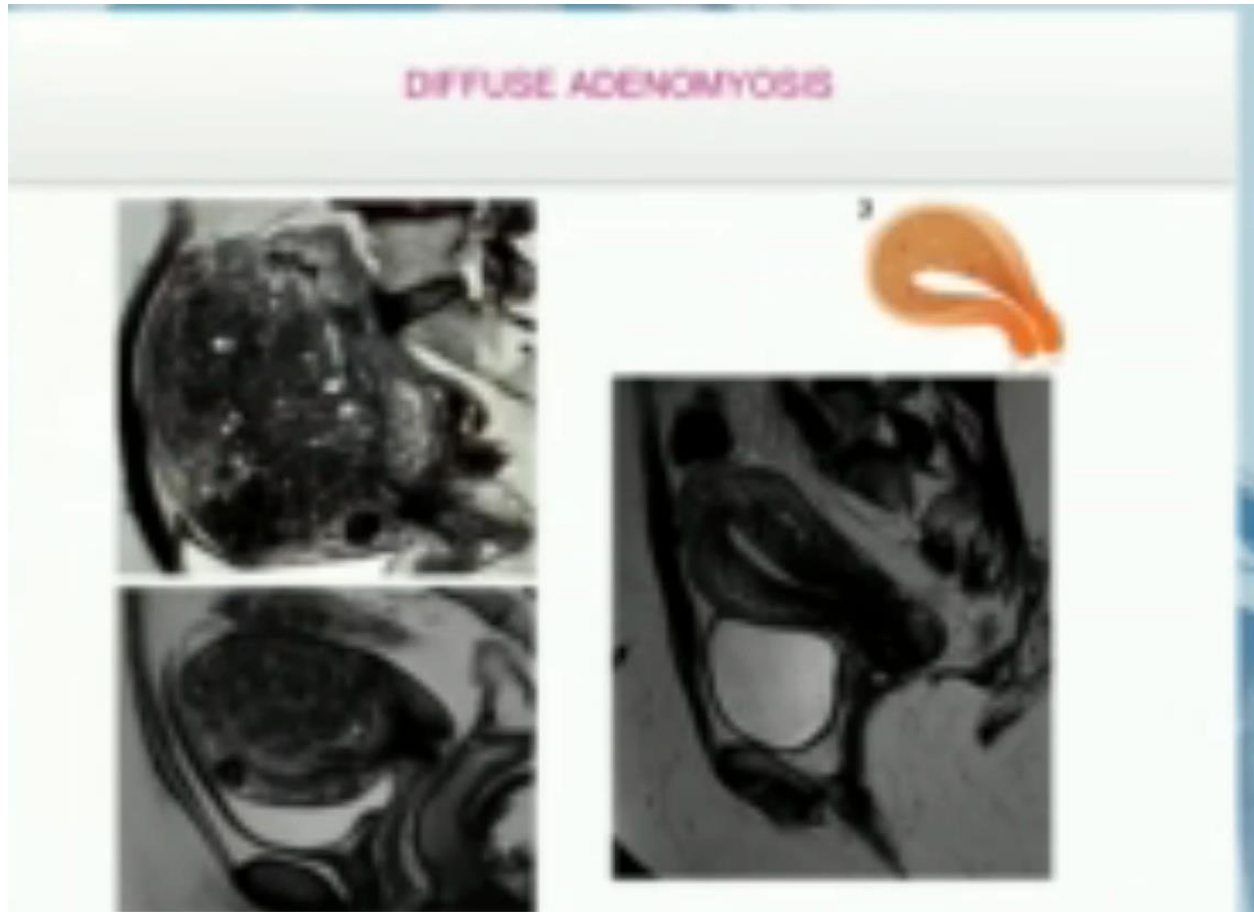
Internal adenomyosis



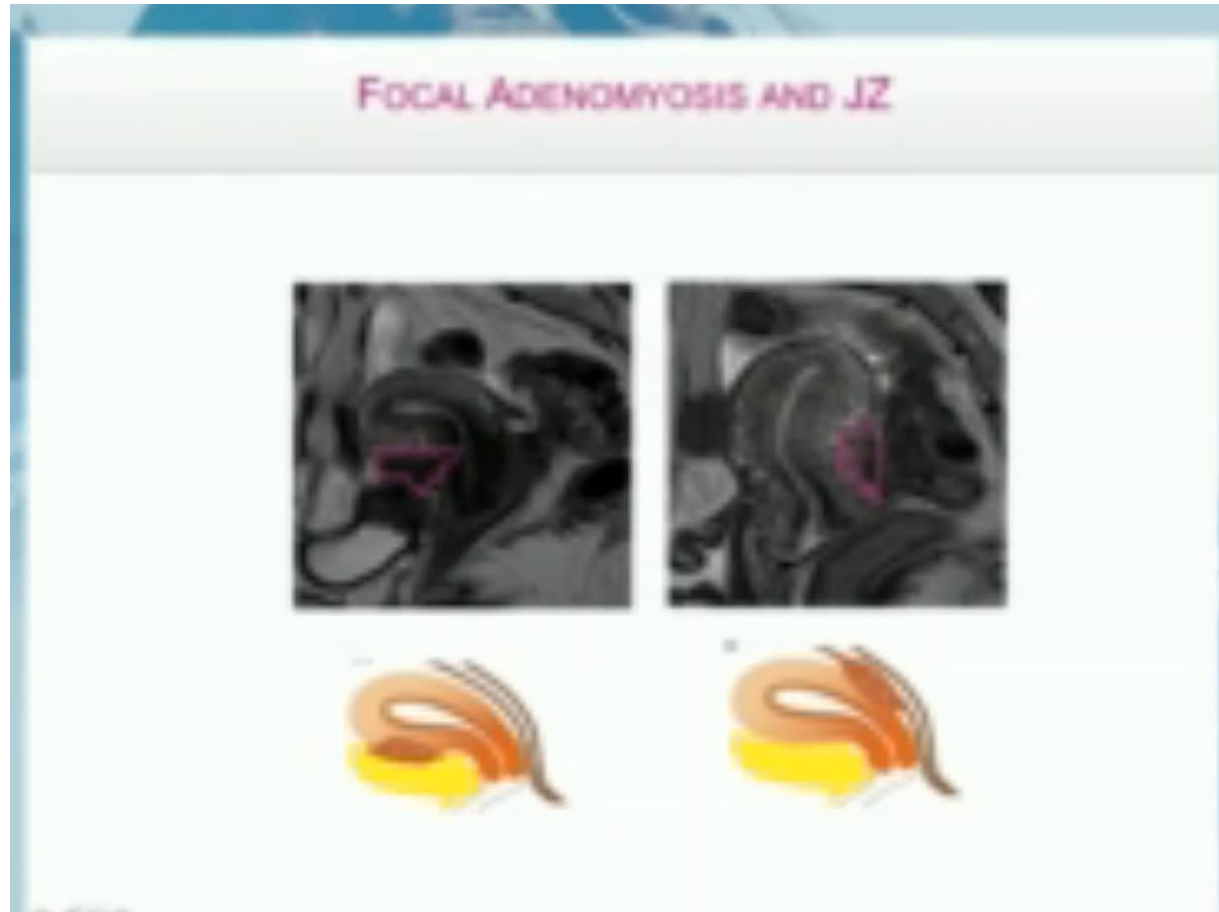
Diffuse type



Diffuse type



Focal type



Recording



The slide features a background image of a city skyline at sunset with a prominent tower. The text is overlaid on this image. In the top left, there is a pink lotus logo and the text 'ACE2021 Colombo, Sri Lanka'. Below this, it says 'Presented by' followed by two logos: the Asian Society of Endometriosis and the Asian Society of Gynecology. The main title is '09TH ASIAN CONGRESS ON ENDOMETRIOSIS'. Below the title, a yellow box contains the text 'Endometriosis Mapping Scan in Deep Endometriosis'. At the bottom, a red box contains the presenter's name and affiliation.

ACE2021
Colombo, Sri Lanka

Presented by

**09TH ASIAN CONGRESS
ON ENDOMETRIOSIS**

**Endometriosis Mapping Scan
in Deep Endometriosis**

Dr Ma Li MD, MRCOG(UK), FACOG(USA)

**DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY,
NATIONAL UNIVERSITY HOSPITAL SINGAPORE**

Our Data 2017-2020

	2017	2018	2019	2020
Number	1	1	1	1
Mean	1	1	1	1
Standard Deviation	0.00	0.00	0.00	0.00
Minimum	0	0	0	0
Maximum	1	1	1	1








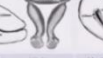


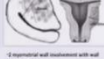



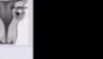

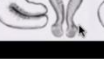
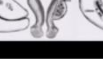
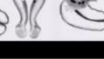
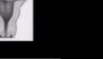
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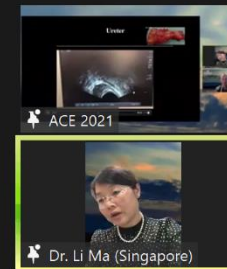
Ultrasound assessment — systematic approach

- ☐ Trans-abdominal — kidney, overview of pelvis
- ☐ Trans-vaginal
- ☐ Anterior compartment: bladder, ureter, mobility
- ☐ Routine assessment of the uterus and ovaries
- ☐ Ovarian immobility and site specific tenderness
- ☐ Posterior compartment:
 - ☐ vagina
 - ☐ rectal-vaginal septum
 - ☐ pouch of Douglas (POD) obliteration
 - ☐ uterosacral ligament
 - ☐ rectum and rectum-sigmoid



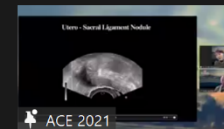
	DIFFUSE ADENOMYOSIS OF THE OUTER MYOMETRIUM	DIFFUSE ADENOMYOSIS OF THE INNER MYOMETRIUM OR JUNCTIONAL ZONE (1)	FOCAL ADENOMYOSIS OF THE OUTER MYOMETRIUM	FOCAL ADENOMYOSIS OF THE INNER MYOMETRIUM OR (2)	ADENOMYOMA
1	<p>1) myometrial wall involvement with superficial wall thickness $\leq 10\text{mm}$</p> 	<p>1) myometrium $\geq 10\text{mm}$ with diffuse infiltration of the JZ $\geq 10\text{mm}$ in length</p> 	<p>1) focal intramural lesion $\geq 10\text{mm}$</p> 	<p>1) focal lesion of the JZ $\geq 10\text{mm}$ in length or $\geq 10\text{mm}$ in depth</p> 	<p>1) adenomyoma with the largest diameter $\geq 10\text{mm}$</p> 
2	<p>2) myometrial wall involvement with wall thickness $\leq 10\text{mm}$</p> 	<p>2) myometrium $\geq 10\text{mm}$ with diffuse infiltration of the JZ $\geq 10\text{mm}$ in length or $\geq 10\text{mm}$ in depth</p> 	<p>2) focal intramural lesion $\geq 10\text{mm}$</p> 	<p>2) focal lesion of the JZ $\geq 10\text{mm}$</p> 	<p>2) adenomyoma with the largest diameter $\geq 10\text{mm}$</p> 
3	<p>3) myometrial wall involvement with wall thickness $\leq 10\text{mm}$</p> 	<p>3) myometrium $\geq 10\text{mm}$ with diffuse infiltration of the JZ $\geq 10\text{mm}$ in length or $\geq 10\text{mm}$ in depth</p> 	<p>3) focal intramural lesion $\geq 10\text{mm}$</p> 	<p>3) focal lesion of the JZ $\geq 10\text{mm}$</p> 	<p>3) adenomyoma with the largest diameter $\geq 10\text{mm}$</p> 
4	<p>4) myometrial wall involvement with wall thickness $\leq 10\text{mm}$</p> 	<p>4) myometrium $\geq 10\text{mm}$ with diffuse infiltration of the JZ $\geq 10\text{mm}$ in length or $\geq 10\text{mm}$ in depth</p> 	<p>4) focal intramural lesion $\geq 10\text{mm}$</p> 	<p>4) focal lesion of the JZ $\geq 10\text{mm}$</p> 	<p>4) adenomyoma with the largest diameter $\geq 10\text{mm}$</p> 

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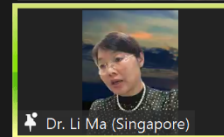


Bowel Endometriosis

- ☐ Size of bowel lesions : Anteroposterior, longitudinal, transverse diameters.
- ☐ Number of rectal and sigmoid lesions
- ☐ Bowel layers affected by each lesion
- ☐ Distance between the lower lesion and the anal verge



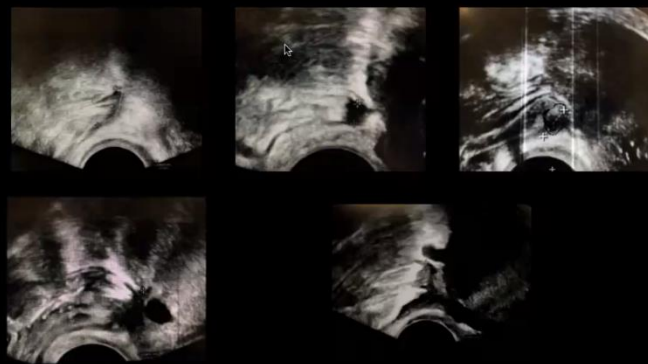
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Recording



Superficial Bowel Endometriosis

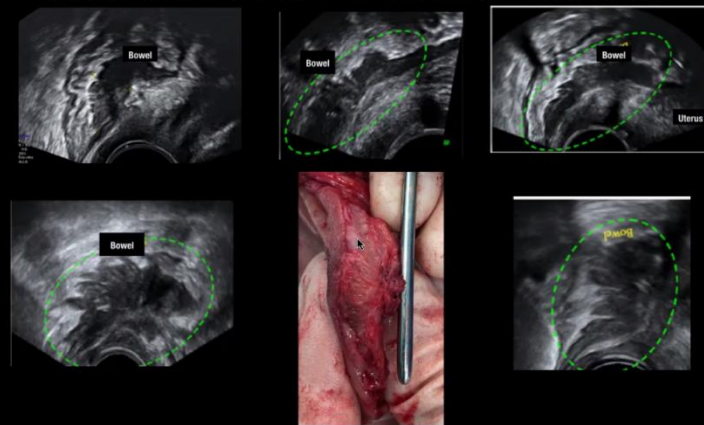


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Severe Bowel Endometriosis



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Recording

Case study—Bowel and Ureter Endometriosis

