#### OC19.02

Effect of dienogest on deep endometriosis nodule involving the rectosigmoid colon: a longitudinal long-term study

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**Objectives:** To assess the long-term effect of Dienogest on clinical complaints and nodule's size in women affected by rectosigmoid deep endometriosis (DE).

Methods: This is a single centre longitudinal prospective observational study comprising a consecutive series of women affected by rectosigmoid DE, who underwent medical treatment with Dienogest (2mg daily continuous). All women underwent clinical visit and transvaginal sonography (TVS) with bowel preparation prior to start therapy and at 3-6 months' interval for at least 12 months. Clinical complaints such as dysmenorrhea, dyspareunia and dyschezia were assessed using a *Visual Analogue Scale* (VAS). DE rectosigmoid lesion was measured in the three-orthogonal planes. Lesion's volume was estimated using the prolate ellipsoid formula. The maximum diameter and lesion volume were used for analysis. Patient's complaints and lesion size before starting the treatment and at 12 months were compared.

Results: Over a three-year period (January 2017-December 2019), 92 patients were recruited. Patients' mean age was 36.7 years (range: 20 to 50 years). We did not observe a significant correlation between the severity of the symptoms and lesion size prior to start therapy. Clinical complaints improved significantly during treatment. However, lesion size and volume did not change significantly (table 1).

**Conclusions:** Dienogest reliefs significantly clinical symptoms related to rectosigmoid DE. However, this treatment does not exert a significant effect on lesion's size as assessed by TVS after a long-term therapy.

OC19.02: Table 1.

	Time 0	Time 12 months	P value
Dysmenorrhea (VAS)*	5.4 (4.3)	1.8 (3.4)	< 0.001
Dyspareunia (VAS)*	5.3 (3.4)	3.3 (3.1)	< 0.001
Dyschezia (VAS)*	5.0 (3.7)	3.0 (2.0)	< 0.001
Lesion maximum diameter (mm)†	24.0 (16.5)	25.9 (15.3)	0.174
Lesion volume (cm3)†	1.37 (1.3)	1.67 (1.2)	0.104

# OC19.03

Modified ultrasound-based endometriosis staging system and CA125 endometriosis severity prediction model

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Objectives: The modified ultrasound-based endometriosis staging system (M-UBESS) and Ca-125 endometriosis severity prediction

model aims to incorporate transvaginal ultrasound (endometrioma, POD obliteration, ovarian fixation, uterosacral ligament(USL) endometriosis) and biochemical (Ca-125) markers to improve the prediction of intraoperative ureterolysis and isolated peritoneal disease, thereby improving the UBESS accuracy in predicting surgical complexity.

Methods: Prospective diagnostic accuracy study (Jan 2020-May 2021), including 74 women who underwent laparoscopic endometriosis surgery. Preoperative Ca-125 and 5-domain transvaginal ultrasound was performed for all women prior to surgery. Preoperative M-UBESS stage and CA-125 levels were correlated with r-ASRM stage and AGES (Australasian Gynecological Endoscopy and Surgery) laparoscopic skill level, including the need for ureterolysis.

Results: Clinical and surgical data was available for 74 women. M-UBESS accuracy in predicting generalist/advanced laparoscopic skill level was 69%(p=0.02)/78%(p=0.001), and for r-ASRM stages I-II// III-IV was 64%(p=0.03)/85%(p=0.001). Ovarian endometrioma/POD obliteration/USL endometriosis/ovarian fixation predicted the need for ureterolysis with the following accuracy: 78%(p=0.006)/80%(p=0.002)/74%(p=0.08)/51%(p=0.3), respectively. CA-125 (<30) predicted r-ASRM stage I/II and generalist AGES skill level in 73%(p=0.02) and 45%(p=0.3), respectively. This threshold was able to distinguish between nil disease and r-ASRM I-II (sensitivity 75%) as well as identify those with pelvic side wall endometriosis (sensitivity 74%), at risk of requiring ureterolysis.

**Conclusions:** Incorporation of TVU features such as endometrioma, POD obliteration, USL endometriosis and ovarian fixation, as well as the CA-125 biochemical marker, appear to improve the prediction of intraoperative ureterolysis and isolated peritoneal disease in women with suspected endometriosis.

### OC19.04

Diagnostic value of transvaginal ultrasonography for the prediction of parametrial endometriosis

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Objectives: The role of ultrasound in the detection of the parametrial localisation of deep endometriosis although associated with ureteral stenosis and linked with a complex surgery with a high risk of intra and post-operative complications, is poor investigated. The aim was to evaluate the diagnostic accuracy of transvaginal ultrasonography in the identification of parametrial deep endometriosis.

Methods: Consecutive women scheduled for surgery in a single centre for clinically suspected endometriosis were included in this prospective study. All women underwent transvaginal ultrasonography before surgery. The presence of parametrial endometriosis was considered when an infiltrating irregular hypoechogenic tissue extending laterally to the cervix was visualised. Sensitivity, specificity and likelihood ratios (LR+/-) were calculated with 95% confidence intervals (CIs).

Results: We included 476 women; surgery associated with histopathological evaluation revealed deep endometriosis in parametrial locations in 114 patients. With respect to the left parametrium, transvaginal ultrasonography had a sensitivity of 88% (95% CI, 79-94%), specificity of 98% (95% CI, 96-99%), an LR+ of 48.2 and an LR- of 0.12. Regarding to the right parametrium, transvaginal ultrasonography had a sensitivity of 91% (95% CI, 80-97%),

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specificity of 98% (95% CI, 96-93%), an LR+ of 63.8 and an LR- of 0.09.

Conclusions: This technique shows, in a large population, a high specificity and sensitivity in the detection of parametrial endometriosis.

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### OC19.05

Ultrasound features and pattern recognition in abdominal wall endometriosis

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Objectives: Abdominal wall endometriosis is often misinterpreted on ultrasound, despite the frequent catamenial symptoms. Imaging can provide valuable clues to the diagnosis, especially when clinical features are not evident. The recent use of linear ultrasound probes with better visualisation prompted us to elucidate the sonographic features of this entity.

**Methods:** This is a retrospective multicentre study of ultrasound features of pathologically confirmed abdominal wall endometriosis using high-frequency linear probes. The images were reviewed by two operators and consensus reached.

Results: The study comprised 30 premenopausal women. Two of the three umbilical lesions constituted spontaneous endometriosis while the remainder presented in surgical scars. The endometrial implants were typically heterogeneous (97%), predominantly hypoechoic (87%) and poorly vascularised (70%). All exhibited spiculated margins. Small cystic areas were seen in 80% and 73% manifested acoustic shadowing. A characteristic pattern of heterogeneous (fibrotic) core with peripheral cysts (hemorrhage) and spiculated (infiltrative) margins was observed in 63% (figure 1). This could be indicative of the natural disease progression observed in endometriosis elsewhere: infiltration, hemorrhage and fibrosis.

Conclusions: Spiculated margins, heterogeneity and acoustic shadowing in a hypoechoic abdominal wall lesion are suggestive of

endometriosis. Ultrasound examination with particular attention to the aforementioned distinctive pattern may enhance diagnostic accuracy, obviate the need for further imaging, and result in appropriate counselling and surgical planning.

Supporting information can be found in the online version of this abstract

### OC19.06

Follow-up of patients with symptoms suggesting endometriosis without initial ultrasound findings

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Objectives: The primary aim was to investigate what happened to the patients who had symptoms suggesting endometriosis but who initially had no signs of endometriosis on advanced transvaginal ultrasound examination. The secondary aim of this study was to learn whether laparoscopy helps to detect endometriotic lesions, confirming the disease.

**Methods:** Patients having symptoms suggesting endometriosis but no findings on initial ultrasound examination were followed up for up to a 5-year period. All ultrasound examinations were done in accordance with IDEA consensus for terms and definitions. Severity of symptoms were assessed by patients using visual analogue scale. Laparoscopy was done at the discretion of treating gynecologist in agreement with the patient. Medical notes were studied to obtain the laparoscopy results.

Results: 98 patients were included in the study. In 22.4% (22/98) patients endometriotic lesions were found on consecutive ultrasound examinations; median time to findings was 4.0 years. Additionally, in 31.6% (31/98) patients' superficial peritoneal endometriosis (SPE) was found by diagnostic laparoscopy. These patients had more severe symptoms according VAS score. Median time at observing endometriotic lesions by ultrasound examination was higher than by laparoscopy in case gynecologist and patient considered that. In summary, during the five-year period 54% (53/98) patients had endometriotic lesions confirmed by ultrasound or laparoscopy. It is impossible to know whether other patients would have SPE as they have not laparoscopy because of satisfactory hormonal treatment applied or evasion of operative exploration.

**Conclusions:** Endometriotic lesions develop in a majority of patients with symptoms suggesting endometriosis, and most can be detected during a 5-year follow-up. For patients who have progressing clinical symptoms, laparoscopy helps quicker to discover SPE.

# SUPPORTING INFORMATION ON THE INTERNET

Supporting information for OC01.03, OC01.04, OC01.08, OC01.09, OC02.03, OC03.06, OC04.02, OC04.04, OC04.08, OC04.11, OC05.04, OC05.08, OC06.03, OC06.04, OC07.07, OC08.03, OC10.03, OC11.01, OC11.02, OC11.03, OC11.04, OC11.06, OC11.07, OC11.08, OC12.07, OC13.03, OC13.07, OC14.01, OC14.02, OC14.03, OC14.05, OC15.02, OC15.05, OC15.06, OC15.07, OC17.01, OC17.04, OC17.05, OC18.03, OC18.07, OC18.09 and OC19.05 can be found in the online version of these abstracts.