

previous transvaginal ultrasound performed by gynaecologists or radiologists. Patients with a diagnosis of BOT by histopathological findings were included. Descriptive analyses were performed.

**Results** Of 18 patients diagnosed with BOT, with a mean age of 39 ( $\pm$ ) 17 years, 11 (73%) were premenopausal, their median CA 125 was 115 ( $\pm$ ) 32 U/mL. The mean maximum diameter of the lesion was 54 ( $\pm$ ) 72 mm, 9 (60%) were described as unilocular solids, 5 (33%) as multilocular solids and 1 (7%) as unilocular. In addition to the classic criteria such as vascularization in the papilla found in 15 (83%) of the cases, we found novel characteristics such as: a low level of echogenicity content in 14 (78%) and a pattern of microcystic tissue that resembles a group of small bubbles in 12 (67%) of these tumors. Furthermore, when these three characteristics were positive, the tumors were diagnosed by histopathology as being of serous origin.

**Conclusion** This study proposes additional characteristics that are of interest for the approach and diagnosis of BOT by ultrasound.

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#### DIAGNOSTIC ACCURACY OF THE IOTA ADNEX MODEL FOR BORDERLINE OVARIAN TUMORS

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**Introduction/Background** The aim of this study was to perform a diagnostic accuracy evaluation of the International Ovarian Tumor Analysis (IOTA) – Assessment of Different Neoplasias in the adnexa (ADNEX) model for the diagnosis of borderline ovarian tumours (BOT).

**Methodology** A retrospective study of patients who underwent gynaecological surgery between 2012 and 2022 with a previous diagnosis of adnexal mass by transvaginal ultrasound at a tertiary referral university hospital with a specific gynaecological oncological unit. Sociodemographic data, ultrasound information, and pathological findings were retrieved from the patient's medical records. The IOTA ADNEX model was used to estimate the probability of benignancy or malignancy (borderline, stage I, stages II-IV, or metastatic) with a threshold of 10%. Definitive pathology was the reference standard used. Sensitivity, specificity, positive (PPV) and negative predictive values (NPV), and likelihood ratios (LR) were calculated.

**Results** A total of 757 patients underwent surgery and had a pathology report. The IOTA ADNEX model identified 586 (77.6%) masses as benign and 171 (22.4%) as malignant. Of those identified as malignant, 64 (37.4%) were identified as borderline by the IOTA ADNEX model, and pathology identified 18 (28%) as BOT. These women had a mean age of 39 ( $\pm$ ) 17 years, 11 (73%) were premenopausal, their median CA 125 was 115 ( $\pm$ ) 32 U/mL. The IOTA ADNEX model had a sensitivity, specificity, PPV, NPV, LR(+) and LR(-) of 72%, 68%, 28%, 93%, 2.28 and 0.40, respectively for the diagnosis of BOT.

**Conclusion** This diagnostic accuracy study showed that the IOTA ADNEX model has good sensitivity in diagnosing BOT in our center. However, its regular performance in the

likelihood ratio could suggest the need to incorporate additional variables in the ultrasound findings.

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#### HOW TO DIFFERENTIATE BETWEEN TRUE POSITIVES AND FALSE POSITIVES IN THE DIAGNOSIS OF BORDERLINE OVARIAN TUMORS

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**Introduction/Background** Currently, the diagnosis of borderline ovarian tumors (BOT) by ultrasound is a challenge. Our study proposes how to differentiate between true positives (TP) and false positives (FP) in the diagnosis of BOT.

**Methodology** A retrospective study of patients who underwent transvaginal ultrasound with a diagnosis of adnexal mass and a subsequent surgery between 2012 and 2022 at a tertiary referral university hospital with a gynaecological oncology unit. The IOTA ADNEX model was used to estimate the probability of benignancy or malignancy, with a cut-off of 10% for malignancy. Pathology was the reference standard used. Descriptive statistics and bivariate analysis were performed.

**Results** For a total of 757 patients, the IOTA ADNEX model identified 171 (22.4%) masses as malignant, of which 64 (37.4%) were classified as BOT. 18 (28%) masses were confirmed as TP by histopathology and 46 (72%) as FP. Its usual ultrasound characteristics were similar with the particularity of having a greater number of papillae and blood vessels in papillary projections in the TP. Therefore, additional sonographic features, such as the presence of a low level of echogenicity content and a pattern of microcystic tissue resembling a cluster of tiny bubbles, were evaluated. These characteristics were relevant in most of the TP. Regarding the FP, histopathology showed that 40% were serous cystadenofibroma, 20% ovarian tube abscess, 10% Low-grade serous carcinomas, among others.

**Conclusion** Our findings show how some usual and novel features in ultrasound are necessary for an adequate differentiation of BOT.

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#### INCONCLUSIVE OVARIAN TUMOURS BY IOTA SIMPLE RULES AND APPLICATION OF O-RADS MRI SCORES IN A TERTIARY REFERRAL CENTRE

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**Introduction/Background** The purpose of this study was to evaluate the Ovarian-Adnexal Reporting Data System Magnetic Resonance Imaging (O-RADS MRI) score for risk stratification of sonographically indeterminate adnexal masses.

**Methodology** Thirty-four patients with sonographically indeterminate adnexal mass according to Simple Rules were enrolled between March 2020 and March 2021. Subjective impression

of risk of malignancy at ultrasound (US) examination by an experienced sonographer in the field and a pelvic MRI were performed. MRI included morphological, functional sequences and O-RADS MRI score (from 1 to 5: 1, nonadnexal lesion; 2, almost certainly benign; 3, low risk; 4, intermediate risk and 5, high risk). Patients were enrolled to surgery and the US and MRI results were compared to the reference standard (histopathological report).

Abstract 2022-RA-1712-ESGO Table 1

Expert US subjective impression N=34	Histological findings		
	Benign	Borderline	Malignant
Inconclusive	15 (44.1%)	3 (8.8%)	4 (11.8%)
Benign	5 (14.7%)	1 (2.9%)	0
Borderline	0	2 (5.9%)	1 (2.9%)
Malignant	1 (2.9%)	1 (2.9%)	1 (2.9%)
<b>O-RADS MRI final score N=34</b>			
1	0	0	0
2	6 (17.6%)	0	0
3	14 (41.2%)	2 (5.9%)	2 (5.9%)
4	1 (2.9%)	4 (11.8%)	0
5	0	2 (5.9%)	4 (11.8%)
<b>O-RADS MRI final score in inconclusive expert US Subjective impression N=22</b>			
1	0	0	0
2	3 (13.6%)	0	0
3	12 (54.5%)	0	0
4	0	2 (9.1%)	0
5	0	1 (4.5%)	4 (18.2%)

**Results** In 34 patients enrolled, 21 (61.8%) had a benign ovarian mass, 6 (17.6%) borderline ovarian tumour and 7 (20.6%) ovarian cancer. At the US examination by an experienced sonographer 22 (64.7%) ovarian masses remained inconclusive at the US examination, 5 (41.7%) were classified correctly as benign and 5 (41.7%) as malignant. The false positive and negative rates were both 16.7% for the experienced US examination. O-RADS MRI correctly classified as benign (score 2–3) 20 (58.8%) and as malignant (score 4–5) 10 (29.41%) ovarian masses. O RADS MRI showed a false positive rate of 5% and a false negative rate of 23% for the diagnosis of ovarian tumour risk of malignancy. O-RADS MRI showed an accuracy of 88%. Interestingly, in the subgroup of ovarian lesions inconclusive at the US expert examination (n=22), O-RADS MRI showed an overall accuracy of 100%.

**Conclusion** In this study, the O-RADS MRI score was accurate when stratifying the risk of malignancy in adnexal masses. O-RADS MRI score can be used to further characterise ovarian lesions indetermined by Simple Rules that remained inconclusive at US expert examination.

## Endometrial cancer

### 2022-RA-129-ESGO ULTRASOUND STAGING OF ENDOMETRIAL CANCER

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**Introduction/Background** Endometrial cancer is common in old age and can be divided in to type 1 related to estrogen exposure and type 2 not related to estrogen exposure . Staging can be done by MRI along with staging . Ultrasound can be used recently due to advanced technologies in ultrasound.

**Methodology** Staging of endometrial cancer in a simplified manner is as follows, stage 1 affection of the endometrium with stage 1a as superficial myometrial affection (less than 50% myometrial affection) and 1b as deep myometrial affection (more than 50% affection) , stage 2 with cervical affection, stage 3 with pelvic Peritoneum, adenal, pelvic and paraortic nodal affection, ascites, positive wash and stage 4 with bladder and rectal affection, inguinal nodes, abdominal metastasis including peritoneal ones.

**Results** Firstly, We assess the tumor location, size (three diameters), sonomorphology .Secondly, assessment of the Extent of tumor infiltration into the myometrium along with tumor serosa distance especially at the fundus . Thirdly, Cervical stromal involvement is assessed . the extent of tumor stromal invasion whether ( $\leq 2/3$  or  $> 2/3$ ) or measurement of tumor-free stroma . The last is done by measuring the distance between the tumor and the pericervical fascia which is the paracervix at he level of the cervix and the paracolpos at the level of the vagina .Fourthly, the assessment of the uterine serosa, adenxa and nodal affection . Finally, The spread into the urinary bladder and/or rectum, inguinal nodes and liver, spleen and kidney along with Omentum or abdominal peritoneal lesions (stage 4) can be determined .

**Conclusion** We present our checklist for ultrasound scanning in cancer cervix.

### 2022-RA-135-ESGO CYTOREDUCTIVE SURGERY IN RECURRENT ENDOMETRIAL CANCER: A NEW PARADIGM FOR SURGICAL MANAGEMENT?

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**Introduction/Background** To review the literature on the effect of surgical cytoreduction in recurrent endometrial cancer on survival and identify factors associated with improved survival. In addition, we sought to assess the effect of previous radiotherapy on surgical achievement.

**Methodology** This review was performed according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines. We performed a search of PubMed and Cochrane Library to identify studies comparing cytoreductive surgery to medical management and studies reporting on patients receiving cytoreductive surgery as part of multi-modal