Methods Between 1/2009 and 12/2018, 116 women underwent preoperative 18F-FDG PET/CT were considered. SUV, MTV, TLG, geometrical shape, histograms and texture features were computed inside tumor contours. In group 1 (87 patients), univariate association with LN metastases was computed by Mann-Whitney test and a neural network multivariate model was developed. Univariate and multivariate models were assessed with leave one out on 20 training sessions and on group 2 (29 patients).

Results Sensitivity and specificity of LN visual detection were 50% and 99% on group 1 and 33% and 95% on group 2. The lower sensitivity of visual detection in group 2 is mainly related to the higher rate of micrometastases (25% vs 13%). A unique heterogeneity feature computed on the primary tumor (GLSZM ZP) was able to predict LN metastases better than any other feature, or multivariate model (sensitivity and specificity of 75% and 81% in group 1 and of 89% and 80% in group 2). Tumors with LN metastases generally demonstrated a lower GLSZM ZP value, i.e. by the co-presence of high-uptake and low-uptake areas.

Conclusions In our study the computation of imaging features on the primary tumor increases nodal staging for detection sensitivity in 18F-FDG PET and can be considered for a better planning of the surgical treatment.

IGCS19-0280

264

DIAGNOSTIC ALGORITHM FOR UTERINE SARCOMA IDENTIFICATION: A 1-YEAR INTERIM ANALYSIS OF A MONOCENTRIC PROSPECTIVE, OBSERVATIONAL COHORT STUDY

¹F Ciccarone, ²T Pasciuto, ³E Robba, ¹F Mascilini, ¹F Moro, ^{4,5}R Manfredi, ^{1,3}G Scambia*, ^{2,6}D Romualdi, ^{1,3}AC Testa. ¹Fondazione Policlinico Universitario A. Gemelli IRCCS, Dipartimento Scienze della Salute della Donna del Bambino e di Sanità Pubblica- Divisione di Ginecologia Oncologica, Roma, Italy; ²Fondazione Policlinico Universitario A. Gemelli IRCCS, Dipartimento Scienze della Salute della Donna del Bambino e di Sanità Pubblica, Roma, Italy; ³Università Cattolica del Sacro Cuore, Istituto di Ginecologia e Ostetricia, Roma, Italy; ⁴Fondazione Policlinico Universitario A. Gemelli IRCCS, Radiologia Diagnostica e Interventistica Generale- Area Diagnostica per Immagini- Dipartimento Diagnostica per Immagini- Radioterapia Oncologica ed Ematologia, Roma, Italy; ⁵Università Cattolica del Sacro Cuore, Istituto di Radiologia, Roma, Italy; ⁶Azienda Ospedaliera 'Cardinale Panico', Dipartimento della Salute della Donna e del Bambino- Divisione di Ostetricia e Ginecologia, Tricase, Italy

10.1136/ijgc-2019-IGCS.264

Objectives Uterine sarcomas are rare malignant tumors arising from the mesenchymal tissues of the uterus including the endometrial stroma, uterine muscle and connective tissue. The diagnosis of uterine sarcomas is a challenge and no validated clinical or radiological criteria can accurately distinguish benign from malignant myometrial tumors. In particular, data on the ultrasound features of uterine sarcomas are scarce and they are mainly based on retrospective case series.

Methods This is a monocentric, prospective, observational cohort study. All patients with at least one myoma of 3 cm or more will be included in MYLUNAR study and will be assessed by Green Card criteria. If one of the Green Card criteria is present, a dedicated clinical and ultrasound paper form will be filled in to check the presence of the criteria

described in the Orange Card. If at least two suspicious characteristics according to Orange Card criteria are present, Magnetic Resonance imaging will be performed and the patients will be submitted to surgery.

Results In this 1-year interim analysis, we analysed 816 patients who were selected by MYLUNAR study criteria. The ad-interim analysis is expected to be concluded in May 2019, and we will present the results at the meeting.

Conclusions The discrimination between benign and malignant myometrial lesions is clinically relevant to plan the optimal management (surgery, interventional procedures, or medical treatment) and to define the most appropriate surgical approach. By defining an accurate diagnostic algorithm in identifying patients with uterine sarcomas, MYLUNAR study may represent the guide line in the management of women with myometrial lesion.

IGCS19-0283

265

EVALUATION OF THE CONSTRUCTED THE DEVICE ALONG WITH THE SOFTWARE FOR DIGITAL ARCHIVING, SENDING THE DATA AND SUPPORTING THE DIAGNOSIS OF CERVICAL CANCER

¹J Gronwald, ²Ł Lasyk*, ³J Barbasz, ⁴A Prusaczyk, ⁴P Żuk, ²T Włodarczyk, ⁴E Prokurat, ⁵W Olszewski, ⁶M Bidziński. ¹Pomeranian Medical University, Department of Genetics and Pathology, Szczecin, Poland; ²Digitmed Sp. z o.o., Department of Research and Development, Oleśnica, Poland; ³Polish Academy of Sciences, Institute of Catalysis and Surface Chemistry, Kraków, Poland; ⁴Medical and Diagnostic Center Sp. z o.o., Department of Research and Development, Siedlce, Poland; ⁵Maria Skłodowska-Curie Institute Oncology Center, Department of Pathology, Warsaw, Poland; ⁶Maria Skłodowska-Curie Institute Oncology Center, Department of Gynecological Oncology, Warsaw, Poland

10.1136/ijgc-2019-IGCS.265

Objectives The incidence and mortality of cervical cancer are high in Poland. There are effective methods of the prevention and the early diagnosis however, they require well-trained medical professionals. Within this project, we built a prototype of a new device together with implemented software, to convert the currently used microscopes, to fully independent scanning systems for cytological samples. The device is intended to improve the effectiveness of cytological screening and registration of cytological tests' results. The features of the software include digital backup, transmission and telemedicine evaluation.

Methods The software uses the artificial neural network (U-NET) designed to recognize suspicious regions and enhanced CNN neural network, allowing to determine the type of disorder such as: ASCUS, ASC-H, HIS, AGC, cancer. 7128 liquid based cytology (LBC) samples were evaluated by cyto-screener. Cytological abnormalities: ASCUS, ASC-H, HIS, AGC, cancer were found in 254 (3.6%) cases. All samples were scanned and archived. Selected samples with diagnosed abnormality, were a model to teach U-NET/CNN.

Results During LBC screening tests (distinguishing between positive and negative results) a 99,6% efficiency compliance with results obtained using standard methods were achieved. There were no positive results misinterpreted. In the field of distinguishing cytological abnormalities: ASCUS, ASC-H, HIS, AGC, CA - 95,72% efficiency was achieved.

Conclusions The obtained results indicate high efficiency of the artificial neural networks, in supporting diagnosticians. The use of U-NET/ANN is a promising for increasing the effectiveness of cervical screening. The low cost of neural networks usage increases the potential areas of application of the presented method.

IGCS19-0152

266 ARE CURRENT GUIDELINES FOR CERVICAL SAMPLING IN HYSTERECTOMY SPECIMENS FOR ENDOMETRIAL CANCER ADEQUATE?

¹S Nottley*, ¹S Syed, ²N Reed, ¹D Millan. ¹Queen Elizabeth University Hospital, Histopathology- Laboratory Medicine, Glasgow, UK; ²Beatson oncology centre, Clinical Oncology, Glasgow, UK

10.1136/ijgc-2019-IGCS.266

Objectives To identify if sampling a single block from the centre of the cervix, including the anterior and posterior lips, is sufficient to detect cervical stromal invasion in hysterectomy specimens for endometrial cancers. We have expanded our study and have analysed according to grade and histological type.

Methods Our centre sequentially processes the entire endocervical canal in cases of endometrial cancer. We reviewed each block of cervical tissue in 79 cases in which there was known cervical stromal invasion; this was to ascertain if sampling only from the centre of the canal was adequate for detection.

Results Cervical stromal invasion is detected in only 73.5% (58/79) of cases when sampling only from the centre of the endocervical canal.

Conclusions Sampling only the centre of the endocervical canal fails to detect 26.5% of cases of cervical stromal invasion by endometrial cancer. We advise processing the entire endocervical canal to ensure correct staging.

IGCS19-0124

267 RETROSPECTIVE STUDY EVALUATING THE ROLE OF TRANSVAGINAL ULTRASOUND GUIDED BIOPSY IN GYNECOLOGICAL CANCER PATIENTS

F Mascilini, AC Testa, L Quagliozzi, F Moro, MC Moruzzi, V Paris, I De Blasis, G Scambia*, A Fagotti. Fondazione Policlinico Universitario Agostino Gemelli- IRCCS- Università Cattolica del Sacro Cuore, Department of Woman and Child Health- and Public Health, Rome, Italy

10.1136/ijgc-2019-IGCS.267

Objectives To evaluate the adequacy, safety and diagnostic accuracy of transvaginal ultrasound-guided biopsy.

Methods This is a retrospective study including patients with suspicious pelvic advanced tumors, primary (excluding cervical and vaginal cancer) or recurrent disease, or uncertain lesions who underwent transvaginal ultrasound guided biopsy at the Division of Gynaecologic Oncology, between April 2015 to May 2018. Transvaginal biopsies were performed with a 18-

G/25 cm core-cut biopsy needle and finally histology was obtained.

Results A total of 63 women were analyzed. An adequate sample for histological analysis was obtained in all (100%) cases. Three patients (4.7%) complained for pain during the procedure, which was controlled by oral analgesic therapy and lasted for 10 min. No early and late complications were registered. Histopathological examinations showed 24/63 (38%) benign lesions (e.g fibrosis, inflammation, uterine or ovarian myoma) and 39/63 (62%) malignant tumors, distributed as follows: 35/39 (89.8%) malignant gynecological lesions, and 4/39 (10.2%) non gynecological malignant tumors. Among the malignant lesions, there were 15/39 (38.4%) primary tumors and 24/39 (61.6%) recurrent tumors. Thirteen patients underwent surgical treatment. Final histology was not in agreement with the results from tru-cut biopsy in 3 of 13 patients (23%); in particular benign disease at tru-cut biopsy resulted positive for malignancy at final histology (2 cases of recurrent cervical cancer and 1 case of recurrent vaginal cancer).

Conclusions Transvaginal ultrasound-guided tru-cut biopsy is an efficient, minimally invasive, accurate and safe diagnostic method for the management of pelvic tumors or uncertain lesions, where unnecessary surgery can be avoided in 80% of the cases.

Ovarian Cancer

IGCS19-0127

268 ATTITUDES TO STIC LESIONS AND OPPORTUNISTIC SALPINGECTOMY: IS THERE A ROLE IN THE GENERAL POPULATION?

H Agnew*, A Brown, I Harley. Belfast City Hospital, Department of Gynaecology, Belfast, UK

10.1136/ijgc-2019-IGCS.268

Objectives The fallopian tube is well recognised as the site of origin of high-grade serous carcinoma (HGSC) and their precursor serous tubal intraepithelial carcinoma (STIC). Bilateral salpingo-oophorectomy is recommended as risk reduction surgery in the high risk population, however the protection offered by opportunistic salpingectomy in the general population remains undetermined. We assessed attitudes among consultant obstetrician/gynaecologists to STIC and performing opportunistic salpingectomy in those without a defined genetic risk.

Methods An anonymous online survey was sent to consultant obstetrician/gynaecologists in Northern Ireland. The questions aimed to determine their understanding of STIC, barriers to counselling patients and performing opportunistic salpingectomy in 3 specific scenarios: caesarean section sterilisation, vaginal hysterectomy and sterilisation requests.

Results 62.3% consider their knowledge either average or poor. 55.1% feel 'somewhat confident' in counselling patients, with main barriers being lack of knowledge, lack of clear evidence and thus no accurate risk/benefit ratio. 68%, 67% and 77% would consider carrying out opportunistic salpingectomy