lymphadenectomy (Group A). Forty-eight percent of patients (56/116) underwent SLN mapping with ultrastaging (Group B). Histological findings were used as the reference standard.

Results Patients with positive node were 11 (18.3%) and 14 (25%) in group A and B, respectively. In group A, 10 were correctly identified by PET/CT, with only 1 FN case. Sensitivity, specificity, accuracy, positive-predictive value-PPV and negative predictive value-NPV of PET/CT for pelvic LN metastases resulted 90.1%, 98%, 96.7%, 90.1%, 98%, respectively. In group B, 4 were correctly identified by PET/CT, while 10 cases resulted falsely negative. Sensitivity, specificity, accuracy, PPV, and NPV of PET/CT for pelvic LN metastases were 28.5%, 97.7%, 80.4%, 80%, 80.3%, respectively. In 5 of 10 FN PET, micrometastases, and/or ITC were detected by SLN ultrastaging. Overall, sensitivity, specificity, accuracy, PPV, and NPV of PET/CT resulted 56%, 97.8%, 88.7%, 87.5%, 89%, respectively.

Conclusions PET/CT demonstrated high specificity in detecting pelvic LN metastases and its high PPV can be useful to refer patients to appropriate debulking surgery. Ultrastaging of SLN increased the identification of metastases (18.3%-25%) not detectable by PET/CT because of its spatial resolution, increasing false-negative PET/CT findings. The combination of both modalities seems promising for nodal staging purpose.

IGCS19-0389

262 OBESITY-RELATED NEUTROPHILIA IN ENDOMETRIAL CANCER

[1]M Cheung*, [1]O O'Brien, [2]D Byrne, [2]T Geoghegan, [3]C LeRoux, [4]D Brennan. *[1]Mater Misericordiae University Hospital, Gynaecology, Dublin, Ireland; [2]Mater Misericordiae University Hospital, Radiology, Dublin, Ireland; [3]University College Dublin, Conway Institute, Dublin, Ireland; [4]Mater Misericordiae University Hospital, University College Dublin School of Medicine- Catherine McAuley Research Centre, Dublin, Ireland*

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Objectives Obesity and metabolic syndrome are significant risk factors for endometrial cancer (EC). This case-control study aimed to assess the relationship between visceral fat and systemic inflammatory markers in EC and cervical cancer (CC).

Methods ImageJ software was used to measure the visceral fat percentage (VFP) on a L3/4 CT slice, for 22 EC, 20 CC. Pre-treatment full blood counts were used to assess inflammatory ratios.

Results Mean BMI (32.56 vs 25.87 kg/m^2, p=0.03) and VFP (33.4 vs 24.0%, p=0.0018) was higher in EC compared to CC patients. BMI did not correlate with VFP. Mean pre-operative leukocytes (8.5 vs 7, p=0.044) and neutrophils (5.85 vs 4.32, p=0.019) were higher in EC patients. There was no difference in the lymphocyte-neutrophil-ratio or lymphocyte-monocyte-ratio, however the neutrophil-monocyte-ratio (NMR) was higher in the EC group (11.27 vs 8.28, p=0.018). This was due to the significant neutrophilia in the EC group (68.9% vs 60.5%, p=0.037) as there was no difference in monocytes in either group. No inflammatory ratio correlated with VFP.

Conclusions VFP and BMI do not correlate, and no white cell ratio correlated with either value in this study. Obesity related neutrophilia may be an important target in EC that warrants further investigation

IGCS19-0521

263 RADIOMICS OF THE PRIMARY TUMOUR AS A TOOL TO IMPROVE 18F-FDG-PET SENSITIVITY IN DETECTING NODAL METASTASES IN WOMEN WITH APPARENT EARLY ENDOMETRIAL CANCER

[1]A Buda*, [2]C Crivellaro, [3]E Bernardi, [1]D Giuliani, [4]F Elisei, [1]M La Manna, [4]L Guerra, [1]M Delle Marchette, [1]T Grassi, [1]ML Di Meo, [1]M Adorni, [1]N Bellante, [2]C Landoni, [5]R Fruscio. *[1]Unit Gynecology Oncology Surgery- San Gerardo Hospital- Monza, Obstetrics and Gynecology, Monza, Italy; [2]University of Milano-Bicocca, Nuclear Medicine, Monza, Italy; [3]University of Milano-Bicocca, Medicine and Surgery, Monza, Italy; [4]San Gerardo Hospital, Nuclear Medicine, Monza, Italy; [5]University of Milano-Bicocca, Obstetrics and Gynecology, Monza, Italy*

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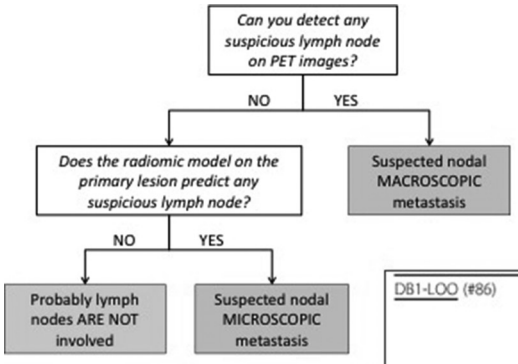
Objectives In this study we investigated the role of radiomic applied in women with endometrial cancer underwent 18F-FDG PET scan, to evaluate if imaging features computed on the primary tumor could improve sensitivity in detection of lymph node (LN) metastases.



DB1-LOO (#86)		LN visual detection	Univariate model (GLSZM ZP)	LN visual detection + univariate model
	Sensitivity	50%	75%	94%
	Specificity	99%	81%	67%
DB2 (#29)		LN visual detection	Univariate model (GLSZM ZP)	LN visual detection + univariate model
	Sensitivity	33%	89%	89%
	Specificity	95%	80%	75%

Abstract 263 Figure 1

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

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

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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

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

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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-sreeners. 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.