

linked immunosorbent assay (SunRed Biotechnology, Shanghai) according to the manufacturer's protocol. Statistical analysis was performed using Statistica 13.3 software. The following statistical methods were used to evaluate the collected research material: statistical description and the non-parametric Mann-Whitney U test of significance. A diagnostic test based on the ROC curve was also used.

**Results** Median serum levels of NT and NRP1 were significantly higher in the EC group compared to NCEL (for NT  $p = 0.000000$ ; for NRP1  $p = 0.000004$ ). The median serum concentration of TSP-2 was statistically non-significantly higher in the EC group compared to NCEL ( $p = 0.6787$ ), so this protein was not further statistically calculated. The cut-off level of NT was set at 275.43 pmol/L with the sensitivity of 94.62% and specificity of 59.09% (AUC = 0.83,  $p < 0.000001$ ). The cut-off level of NRP was set at 30.37 ng/mL with the sensitivity of 81.72% and specificity of 57.58% (AUC = 0.71,  $p = 0.000004$ ).

**Conclusion** These results suggest that both NT and NRP1 could be potential biomarkers in the diagnosis of endometrial cancer, but nevertheless further studies are needed to confirm the findings.

**Disclosures** There is no potential conflict of interest to report.

#769

#### EFFICACY OF ARTIFICIAL INTELLIGENCE IN THE DIAGNOSIS OF HIGH-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA AND CERVICAL CANCER

Aleksei Golubenko\*, Alesia Lokshina, Ramilia Golubenko. *Oryol Center of Colposcopy, Oryol, Russia*

10.1136/ijgc-2023-ESGO.256

**Introduction/Background** World Health Organization classified the introduction of artificial intelligence (AI) in colposcopy as one of the main events that could reduce the incidence of cervical cancer worldwide. Cervical cancer incidence and mortality disproportionately affect low-middle income countries (LMICs) due to suboptimal organization of screening programs (Pimple, 2019, *Minerva Gynecol.*). Telecolposcopy and mobile screening programs can potentially lower cervical cancer incidence and mortality in LMICs (Hitt, 2016, *Telemed J E Health*). Furthermore, AI-guided digital colposcopy devices could strengthen diagnostic ability and accelerate cervical cancer elimination worldwide (Hue, 2020, *BMC Med*; Kim, 2022, *Healthcare (Basel)*). This study evaluates the effectiveness of AI mobile colposcopy in diagnosing high-grade cervical intraepithelial neoplasia (CIN 2,3) and cervical cancer.

**Methodology** This study included 28 female patients who underwent traditional colposcopy (Olympus OCS-500, analog video system), mobile colposcopy (MobileODT Eva) using Visualcheck AI application for image analysis, and multifocal targeted biopsy with histopathological examination.

**Results** According to traditional colposcopy and histopathological analysis, CIN 2 was detected in 8 cases, CIN 3 in 15 cases, and cervical cancer in 5 cases. Mobile colposcopy with artificial intelligence analysis detected 23 pathological cases (CIN 2 – 6, CIN 3 – 12, Cervical cancer – 5). Visualcheck AI sensitivity for CIN 2 is 75%, 80% for CIN 3, and 100% for cervical cancer. The overall positive predictive value (PPV) of Visualcheck AI was 82%.

**Conclusion** AI mobile colposcopy system showed high sensitivity in detecting high-grade CIN and cervical cancer. High PPV

indicates reasonable diagnostic reliability of artificial intelligence in diagnosing high-grade CIN and cervical cancer; however, more robust studies are needed to produce conclusive results.

**Disclosures** No potential conflict of interest to report for all authors.

#829

#### IMAGING IN GYNECOLOGICAL DISEASE: CLINICAL AND ULTRASOUND CHARACTERISTICS OF BENIGN RETROPERITONEAL PELVIC NERVE SHEATH TUMORS

<sup>1</sup>Daniela Fischerová, <sup>2</sup>Natacha Quintal De Sousa\*, <sup>3</sup>Gino Santos, <sup>4</sup>Lufee Wong, <sup>5</sup>Vered Yulzari, <sup>6</sup>Rosalie Bennett, <sup>6</sup>Pavel Dundr, <sup>7</sup>Andrea Burgetova, <sup>8</sup>Pavel Barsa, <sup>9</sup>Szabo Gabor, <sup>10</sup>Umberto Scovazzi, <sup>1</sup>David Cibula. <sup>1</sup>Department of Obstetrics and Gynecology, First Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>2</sup>Hospital de Braga, Braga, Portugal; <sup>3</sup>Institute for Women's Health, The Medical City, Pasig City, Philippines; <sup>4</sup>Department of Obstetrics and Gynecology, Monash University and Monash Health, Clayton, Australia; <sup>5</sup>Institute for Women's Health, Sheba, Israel; <sup>6</sup>Department of Pathology, First Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>7</sup>Department of Radiology, First Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>8</sup>Department of Neurosurgery and Neuro-oncology, First Faculty of Medicine, Charles University, Prague, Czech Republic; <sup>9</sup>Department of Obstetrics and Gynecology, Budapest, Hungary; <sup>10</sup>Department of Gynecology and Obstetrics, Ospedale Policlinico San Martino and University of Genoa, Genova, Italy

10.1136/ijgc-2023-ESGO.257

**Introduction/Background** Soft tissue tumors arising from peripheral nerve sheath tumors (PNSTs) may occasionally be observed in the pelvic retroperitoneum during gynecological examination. These are usually benign, although a very low risk of malignant transformation has been reported. The purpose of this study was to describe the clinical and sonographic characteristics of benign, retroperitoneal, pelvic PNSTs.

**Methodology** A retrospective, single, gynecologic oncology center study conducted between 1 January 2018 and 31 August 2022. All ultrasound images, clips, and final specimens of benign PNSTs were reviewed to describe: (1) the ultrasound appearance of the tumors using standardized terminology on a predefined ultrasound assessment form, (2) the origin of the tumors in relation to nerves and pelvic anatomy, and (3) the correlation between ultrasound features and histotopograms.

**Results** Five women (mean age 53 years) with benign, retroperitoneal, pelvic PNSTs were identified: four with schwannomas and one with a neurofibroma, all of which were sporadic and solitary. All patients had good quality ultrasound images and clips and final biopsies of surgically excised tumors, except for one patient managed conservatively with a tru-cut biopsy. In four of these cases, the findings were incidental. All five PNSTs measured 31–50mm, were solid, moderately vascular tumors, with non-uniform echogenicity, well-circumscribed by hyperechogenic epineurium, and had no acoustic shadowing. They contained small, irregular, anechoic, cystic spaces ( $n = 3$ ), and hyperechoic areas ( $n = 4$ ).

**Conclusion** Accurate preoperative diagnosis of these tumors may avoid the potential risks of surgery, especially collateral nerve and vascular damage. However, no ultrasound features reliably differentiated schwannomas from neurofibromas. In fact, they overlap with those of malignant tumors. Ultrasound-guided biopsy can be used to diagnose these tumors, which may be subsequently monitored with ultrasound surveillance.

**Disclosures** On ultrasound, benign PNSTs were solid, non-uniform, moderately vascular tumors without acoustic shadowing. Most were round and contained small, irregular, anechoic, cystic spaces, and hyperechoic areas, consistent with

degenerative changes on pathology. All tumors were well-circumscribed by a hyperechogenic rim composed of epineurium. This may support the development of a novel field using ultrasound to evaluate the pelvic nerves.

#830

#### HPV IN CLINICAL HOSPITAL CENTER SESTRE MILOSRDNICE – FOUR-YEAR PERIOD

<sup>1</sup>Ivana Stojanovic\*, <sup>1</sup>Ivan Samija, <sup>1</sup>Drazen Butorac, <sup>2</sup>Adriana Semper Majdandzic. *Clinical Hospital Center Sestre Milosrdnice, Zagreb, Croatia; General Hospital Bjelovar, Bjelovar, Croatia*

10.1136/ijgc-2023-ESGO.258

**Introduction/Background** Human papillomavirus (HPV) is the most common sexually transmitted infection. It can cause serious health problems such as warts, carcinoma of vulva, vagina, cervix, penis, anus and oropharynx or recurrent respiratory papillomatosis and some cutaneous diseases. There are over than 200 types of HPVs. HPV 16 and 18 cause about 70% of cervical cancers. HPV 6 and 11 cause about 90% warts.

**Methodology** Between January 2017 and December 2020, 853 HPV typings were performed at Clinical Hospital Center Sestre milosrdnice. The samples were taken in gynecology (806), otorhinolaryngology (39), dermatology (7) and pediatric (1) clinics. The most common diagnoses were low and high grade squamous intraepithelial lesion (LSIL and HSIL), cervical carcinoma in situ (CIS), cervical carcinoma, warts, lingual carcinoma, oropharyngeal carcinoma, hard palate cancer, recurrent respiratory papillomatosis and oropharyngeal, laryngeal or vocal papilloma.

**Results** Among otorhinolaryngological patients, 74,4% were HPV negative, 7,7% were HPV 16 positive, followed by HPV 56 (5,1%), 18 (2,5%), 31 (2,5%), 52 (2,5%), 39 (2,5%), 59 (2,5%). Among dermatological patients, 57,1% were HPV negative, 2,86% HPV 51 positive and 1,4% HPV 39 positive. There was one pediatrics patient and he was HPV negative. Among gynecological patients, 54,3% were HPV negative and 12,2% were HPV 16 positive. There was 8,4% inadequate samples. Rest of the gynecological patients had HPV 31 (5,3%), HPV 35 (4,3%), HPV 18 (2,3%), HPV 33 (2,2%), HPV 52 (1,8%), HPV 56 (1,7%), HPV 39 (1,6%), HPV 51 (1,4%), HPV 45 (1,1%), HPV 59 (1,1%), HPV 66 (0,6%), HPV (0,1%).

**Conclusion** Only high-risk HPV typing was done. It is expected that most dermatological samples will be HPV negative. The most frequent oral HPV is HPV-16. The main indication for HPV testing in gynecology in our hospital is the six-month follow-up after LLETZ or cold knife conization.

**Disclosures** All authors declare that they have no conflicts of interest.

#848

#### CELL-FREE DNA CONCENTRATION IS CORRELATED WITH ENDOMETRIAL CANCER SIZE AND SPREAD EVALUATED BY ULTRASOUND

<sup>1,2</sup>Jure Knez\*, <sup>1</sup>Andrej Cokan, <sup>1</sup>Andraž Dovnik, <sup>1</sup>Maja Pakiž, <sup>1,2</sup>Iztok Takac, <sup>2</sup>Tomaž Budefeld, <sup>2</sup>Uroš Potocnik, <sup>1,2</sup>Monika Sobocan. *<sup>1</sup>University Medical Centre Maribor, Maribor, Slovenia; <sup>2</sup>Faculty of Medicine, Maribor, Slovenia*

10.1136/ijgc-2023-ESGO.259

**Introduction/Background** To establish the correlation between ultrasound characteristics of endometrial cancer (EC) and the

value of molecular characteristics for individualised preoperative management.

**Methodology** A single university based centre prospective study including all consecutive women undergoing surgical management for EC. All patients with EC underwent transvaginal ultrasound examination, molecular tumour characterisation and determination of cell-free DNA (cfDNA) quantities from peripheral venous blood samples. cfDNA was extracted from 1 mL of plasma using ccfDNA/RNA Kit and diluted in 20 uL of distilled H<sub>2</sub>O. cfDNA concentration was determined through the use of the High Sensitivity DNA Chip/2100 Bioanalyser, Agilent and was represented in ng/mL plasma.

**Results** Fifty-nine women were included in the final analysis. The median age of women was 69 years (range 41–84). There were 2 women with POLEmut tumours, 20 with MMR deficient, 9 with p53 mutated and 28 with NSMP tumours. None of the classical ultrasound characteristics (deep myometrial invasion, cervical stromal invasion, tumour vascularity, tumour volume or diameter) were statistically significantly different between different molecular subtypes. Considering cfDNA concentration, there was significant positive correlation between ultrasound assessment of myometrial invasion (%) and cfDNA concentration ( $r=0.317$ ,  $p=0.002$ ) and largest tumour diameter ( $r=0.284$ ,  $p=0.036$ ). There was also a statistically significant difference in cfDNA concentration when tumour invaded cervical stroma (median 5.6; range 0–41 vs. 7.5; range 6.4 – 13.5;  $p=0.05$ ). The difference in cfDNA concentration between highly vascular tumours (Doppler score 3 or 4) and poorly vascular tumours (Doppler score 1 or 2) was not statistically significant (median 5.6; range 0.6 – 39 vs. 7.4; range 0–28.4  $p=0.06$ )

**Conclusion** cf-DNA concentration measured before starting management of endometrial cancer is correlated with tumour size and local spread of tumour as assessed by ultrasound. There is no correlation between classical ultrasound parameters of endometrial cancer and the currently used molecular classification.

**Disclosures** Nothing to disclose.

#952

#### RESULTS OF THE ULTRASOUND-GUIDED BIOPSIES PERFORMED IN THE ONCOLOGIC GYNECOLOGICAL OFFICE

Beatriz Olivares Romera\*, Gregorio López González, Joana Izquierdo De La Fuente, Claudia Sánchez-Arévalo Crespo, María De Los Reyes Oliver Pérez, Blanca Gil Ibáñez, Álvaro Tejerizo García. *Hospital 12 de Octubre, Madrid, Spain*

10.1136/ijgc-2023-ESGO.260

**Introduction/Background** Ultrasound-guided biopsy is a minimally invasive method that allows us to obtain samples with precision and little preparation of the patient. In addition, it offers real-time visualization of the images with access to power Doppler.

**Methodology** Retrospective observational study of ultrasound-guided biopsies performed between June 2022 and April 2023 in the gynecologic oncology department of the Hospital 12 de Octubre in Madrid. The biopsies were indicated by findings in imaging tests or by the onset of suspicious symptoms.

**Results** 17 ultrasound-guided biopsies were studied, of which 15 were transvaginal with long trucut and 2 percutaneous with short trucut. 14 of them were located in the cervix, 1 pararectal, 1 paracervical and 1 in the pubis. The mean number of cylinders obtained was 3.8. Most were well tolerated,