particularly the FIGO stage, is insufficient to predict their evolutionary profile. to better understand, the biology of these tumors is needed to assess prognosis and adapt therapeutic management.

Methodology This is a retrospective study of 29 cases of ULS from the Department of Pathological Anatomy and Cytology of Salah Azaiez Institute of Tunis over 17 years (2004 - 2020).

The expression of estrogenic and progesterone receptors (RO and RP) was studied by immunohistochemistry (automate BOND MAX leica). Immunolabelling was assessed for the entire tumor and we established the average. The threshold of positivity chosen was 10% regardless of the intensity.

Result(s)* The mean age medium was 52 years [min 39 – max 70 years]. Tumors were stage I in 48%, stage II in 14%, stage III in 24%, and stage IV in 14% of cases.

We found co-expression of RO and RP in 11 cases, expression of ER only in 3 cases, expression of PR only in 4 cases, and lack of expression of both markers in 11 cases.

The breakdown by FIGO stage was as follows: RO+ tumours 22%, 11%, 56% and 11%, RP+ tumours 30%, 20%, 50% and 0%. We did not find a correlation between stage and expression of RO or RP.

Conclusion* We did not find a correlation between the hormonal receptor expression and stage. The place of hormonotherapy, which is increasingly used in other uterine sarcomas such as endometrial stromal sarcoma, remains to be clarified by large-scale clinical trials.

975 HORMONAL RECEPTORS EXPRESSION IN ENDOMETRIAL STROMAL SARCOMAS

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Introduction/Background* Endometrial stromal sarcoma (ESS) is a rare uterine mesenchymal tumor, accounting for 20% of all uterine sarcomas. It ranks second among uterine sarcomas, after leiomyosarcomas. These are low-grade tumors. The prognosis depends primarily on the tumor stage.

Hormone receptors estrogenic and progesterone receptors (RO, RP) can help to select patients who will be treated with hormonotherapy.

The objective of our work was to determine the level of expression of PRs and ROs in the ESS.

Methodology Patients were selected from the computerized archives of the Department of Pathological Anatomy and Cytology of Salah Azaiez Institute. We selected 11 cases of low-grade endometrial stromal sarcomas that were diagnosed over 18 years (2002 -2020).

Result(s)* ROs were expressed in 7 cases and RPs in 8 cases: a co-expression of RO and PR in 7 cases, an expression of PR only in 1 case, and a lack of expression of both markers in 3 cases.

Conclusion* According to the literature, the expression ROs is found in 50 to 94% of ESS, and PR is found in 52 to 100% of ESS. Our results are comparable to those in the literature.

Indeed, immunohistochemistry is currently a diagnostic and theranostic tool in ESS. The meaning of this term has been studied by many authors. It would appear that the determination of this hormonal status is useful for selecting a group of patients that are likely to respond to hormonotherapy. This hormonotherapy is much less toxic than conventional chemotherapy and could be used as adjuvant therapy or in metastatic disease.

989 ANALYSIS OF MICROSATELLITE INSTABILITY IN ENDOMETRIAL CANCERS: COMPARATIVE EVALUATION OF MOLECULAR-BASED ASSAYS IN FORMALIN-FIXED TISSUES

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Introduction/Background* Microsatellite instability (MSI) is routinely analyzed in patients with endometrial cancers for selecting patients for immunotherapy. Standard reference methods recommended for MSI/dMMR (deficient MisMatch Repair) are immunohistochemistry and pentaplex PCR assays.

Methodology We evaluated here the performance of a custom capture-based NGS method, digital droplet (dd)-PCR and automated-PCR for the determination of MSI status in 30 formalin-fixed paraffin embedded (FFPE) tissue samples from patients with endometrial and colorectal cancers. All samples have been previously characterized using standard reference methods, set as gold standard.

Result(s)* Overall agreement, sensitivity and specificity were 93.3%, 93.8% and 92.9% for NGS. Overall agreement, sensitivity and specificity were 100% for dd-PCR and automated-PCR assays.

Conclusion* NGS, dd-PCR and automated-PCR can be used routinely used for the analysis of MSI detection and represent complementary options to IHC and pentaplex PCR assays. Dd-PCR and automated-PCR assays allow easy and fast analysis while NGS allows simultaneous analysis of MSI and clinically relevant genomic alterations.

990 PERITONEAL CYTOLOGY IN ENDOMETRIAL CANCER

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10.1136/ijgc-2021-ESGO.220

Introduction/Background* Peritoneal cytology was analysed in endometrial carcinoma and its correlation to the histological type, FIGO classification of tumour, tumour grade and age. The goal was to determine presence of tumour cells in peritoneal cytology and its correlation to histological type, FIGO classification of tumour, tumour grade and age in the moment of surgical treatment. Second goal was follow up the patients with and without positive peritoneal cytology and early stage tumor.

Methodology The study was retrospective included patients that have been surgically treated at the Oncology Institute of Vojvodina in period of October 2012. up to January 2020. 300 patients were analysed. Comparison was made between two groups in FIGO classification, histological type, grade of tumour and age in the moment of surgical treatment.

Result(s)* Results show no statistical significance in difference between age of patients in the moment of surgical treatment ($p=0.126$). There was statistical significant difference in positive peritoneal cytology between group with endometrioid compared with nonendometrioid endometrial carcinoma ($p=0.000$) group. Also there was, statistical significant difference between group with endometrial cancer confined to uterus compare with patients with carcinoma beyond the uterus ($p=0.000$) and statistically significant was confirmed with high tumor grade ($p=0.000$).

Conclusion* The positive peritonal cytology was found statisticaly significance in the group of the patients with non endometroides type of the tumor, highest tumor grade and higher FIGO classification. For these group of patients have to consider to still recommend using peritoneal washings cytology analyses during surgery.

996 EPIGENETIC METHYLATION IN ENDOMETRIAL CANCER (EC): AN UMBRELLA REVIEW OF PUBLISHED EVIDENCE

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Introduction/Background* EC is the commonest gynaecological malignancy in developed countries accounting for 97,000 deaths annually worldwide. Methylation of DNA, histones, and micro-RNA (miRNA) are important epigenetic events which predominantly repress gene expression, reversibly, thus altering the tumour-cellular phenotype. We performed an umbrella review of relevant narrative (NR) and systematic reviews (SR) to identify prognostic and/or predictive methylation biomarkers for clinical decision-making.

Methodology We followed the PRISMA guidelines and prospectively registered our protocol with PROSPERO (CRD42021225841). We searched MEDLINE from inception to December 4th, 2020, for NRs and SRs, published in English, discussing the association between methylation of DNA, histones or miRNA and early detection, prognosis or treatment response in EC. Three reviewers extracted and assessed the quality of the evidence for qualitative synthesis.

Result(s)* Our search yielded 86 publications. We included 19 articles: 2 SRs with meta-analysis and 17 NRs. Type I and II EC exhibit distinct methylation profiles of gene silencing. Type I EC contains near-diploid cells (vs. aneuploid in type II) and its progression is more strongly associated with epigenetic changes. Global hyper- or hypomethylation and CIMP are described. Gene promoter hypermethylation predominates especially in hormone receptor, MLH1, MGMT, CDKN2A/P16, WNT/b-catenin/E-cadherin, PIK3CA/MAPK/RAS, and FGF pathway components. Ribosomal DNA hypomethylation, DNA aneuploidy, and lack of *CDH13* hypermethylation predict poor prognosis. Dysregulated miRNA expression and processing differentially promotes oncogenesis. Histone methyltransferases (EZH2) and demethylases (LSD1, KDM4A/B) are overexpressed correlating with aggressiveness. Meta-analyses report significant associations with *RASSF1A* promoter methylation and *CDKN2A/p16* hypermethylation which occur early in carcinogenesis potentially aiding non-invasive detection.

Conclusion* As type I EC primarily affects younger women, some of whom have yet to complete their family, prognostication via (epigenetic) biomarkers is important for treatment stratification. Predicting response to conservative (progesterone) treatment via methylation biomarkers could help identify eligible women for 'watch and wait' until they complete their family. Artificial intelligence (AI) could facilitate such efforts.

1006 MOLECULAR SUBTYPE DIAGNOSIS OF ENDOMETRIAL CARCINOMA USING AN NGS PANEL

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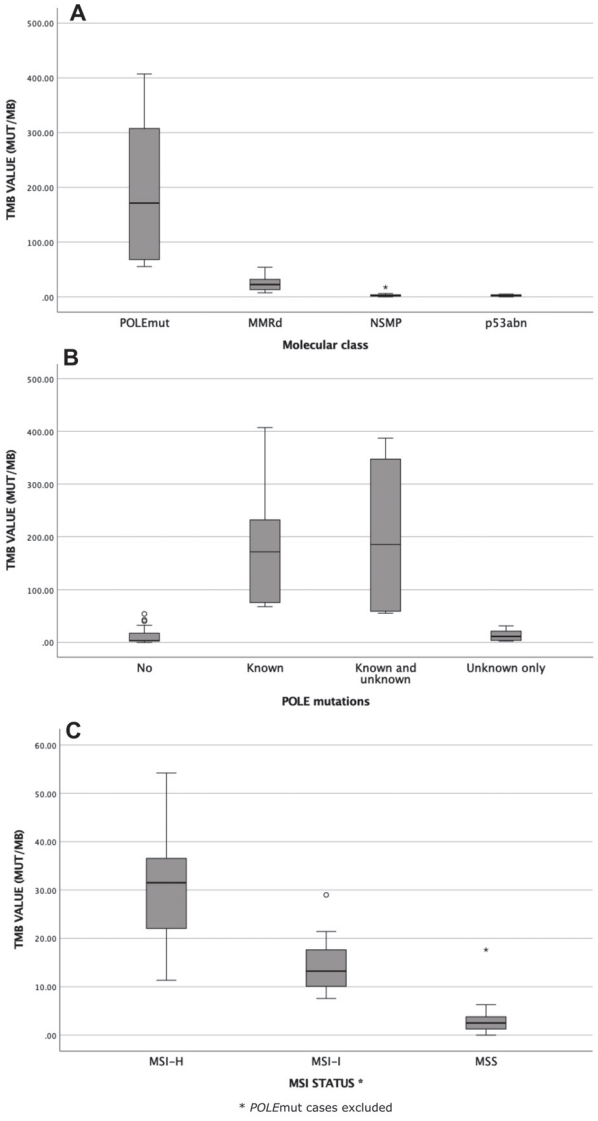
Introduction/Background* The molecular classification of endometrial carcinoma (EC) is integrated in the new ESMO-ESGO-ESTRO treatment guidelines and is needed for appropriate treatment planning. An NGS panel can be used for molecular classification, assessing *POLE* mutation status, microsatellite instability (MSI) and *TP53* mutation status. We describe the process of molecular classification on 60 EC cases based on



Abstract 1006 Figure 1