2022-RA-1158-ESGO UTERINE SARCOMA

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10.1136/ijgc-2022-ESGO.795

Introduction/Background Uterine sarcomas are rare tumors, representing 3 to 5% of malignant tumors of the uterus. They are characterized by a significant histopathological and clinical diversity. Their diagnosis is not very often made until the histopathological analysis of the hysterectomy or myomectomy specimen, distinguishing between: carcinosarcoma; leiomyosarcoma; rhabdomyosarcoma; adenosarcoma; stromal sarcoma; undifferentiated sarcoma. Doppler ultrasound does not differentiate uterine sarcomas from fibroids. MRI, and in particular dynamic sequences after injection of gadolinium, can help in the diagnosis. Surgery is the first step in the management of uterine sarcoma, consisting of a total hysterectomy with bilateral adnexectomy. A pelvic curage with omentectomy will be added in case of carcinosarcoma.

Methodology ten cases of uterine sarcoma treated in the department of gynecology-obstetrics I at the CHU Hassan II in Fez between 2016 and 2021 were analyzed retrospectively.

Results Of the 10 patients, 60% are multiparous, 80% postmenopausal and 01 patient has a history of uterine fibroid. 80% of our patients consulted for metrorrhagia. 90% of our patients had surgical treatment. Anatomopathological analysis of the surgical specimens revealed 07 leiomyosarcoma, 02 endometrial stromal sarcoma, and 01 adenosarcoma. Three patients received adjuvant radiotherapy, while a combined chemotherapy/radiotherapy postoperatively was indicated for one patient.

Conclusion Sarcomas are rare cancers of the uterus and their prognosis is poor. Their diagnosis must be made early, as the tumor stage is the major prognostic factor.

2022-RA-1159-ESGO STUMP

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10.1136/ijgc-2022-ESGO.796

Introduction/Background Smooth muscle tumors of the uterus are subdivided into three categories: leiomyomas, leiomyosarcomas and STUMP (smooth muscle tumor of uncertain malignant potential). This classification is based on the study of 3 histopronostic criteria which are: nuclear atypia, mitosis index and the presence or absence of tumor necrosis. The STUMPs are smooth muscle tumors whose morphological characteristics do not allow them to be formally classified as benign or malignant tumors. The diagnosis of uterine sarcoma or stromal tumor of uncertain malignant potential must be evoked on MRI.

Methodology Six cases of STUMP treated in the department of gynecology-obstetrics I at the CHU Hassan II in Fez between 2017 and 2021 were analyzed retrospectively.

Results Of the 06 patients, 50% are multiparous. 80% of our patients consulted for metrorrhagia. All patients had surgical treatment. Anatomopathological analysis of the surgical specimens revealed STUMP in all cases.

Conclusion Uterine STUMP is a rare condition, and diagnosis can be difficult, often with unusual combinations of findings. Prognosis for the patient is unclear and their is a risk of recurrence with the tumors. To reduce mortality, regular follow-up and a centralised approach are recommended.

2022-RA-1319-ESGO A CASE OF ISOLATED INGUINAL NODAL CANCER OF MULLERIAN ORIGIN

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10.1136/ijgc-2022-ESGO.797

Introduction/Background Inguinal nodal disease has been reported to be a rare metastatic site for cancer of Mullerian origin. However, isolated inguinal nodal disease has not been reported in literature.

Methodology We present a case of a 48-year-old lady with inguinal lymph node endometrioid adenocarcinoma, with no gynaecological primary detected.

Results This lady who has no significant past medical history presented with a left groin lump to the General Surgery department and an excision biopsy revealed histology consistent with metastatic adenocarcinoma, in keeping with primary from the female gynaecologic tract (CK7, PAX8, ER positive; GATA3, CDX2 negative). She reported occasional intermenstrual bleeding therefore hysteroscopy and endometrial curettage was performed, revealing normal vagina, cervix, and a benign endometrial polyp and focal endometrial hyperplasia with no atypia. Computed Tomography scan of the thorax, abdomen and pelvis, and Magnetic Resonance Imaging performed revealed no significant pathology besides a cluster of prominent left inguinal lymph nodes. Screening oesophagealgastroduodenoscopy and colonoscopy performed was unremarkable. After discussion at the multidisciplinary tumour board meeting, a total hysterectomy, bilateral salpingo-oophorectomy and complete debulking of left inguinal lymph nodes was performed. Final histology of uterus and bilateral tubes and ovaries did not reveal any malignancy, except for endometrial hyperplasia without atypia, and focal endometriosis on left ovary. Histology of the inguinal lymph nodes removed were found to be consistent with endometrioid carcinoma.

Conclusion Our hypotheses for isolated endometrioid carcinoma in the inguinal lymph node includes malignant transformation of ectopic endometriotic deposit or endosalpingiosis in the inguinal lymph node.

2022-RA-1380-ESGO TRIPLE NEGATIVE BREAST CANCER ABOUT 24 PATIENTS AND LITERATURE REVIEW

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10.1136/ijgc-2022-ESGO.798

Introduction/Background Triple-negative breast cancer (TNBC) is defined by the absence of estrogen and progesterone receptor expression and the absence of HER2 overexpression or amplification. Epidemiologic and clinical features are distinct from the other subtypes, including younger age at diagnosis, higher risk of relapse despite increased chemosensitivity, and higher incidence of lung and brain metastases.Indeed, TNBC has distinct clinical and pathological features. Due to its aggressive behavior, relatively poor prognosis, and lack of

targeted therapies, TNBC is associated with high morbidity and mortality. Therefore, for several years, neoadjuvant chemotherapy has been the mainstay of treatment.

Methodology Our work consists of a retrospective study carried out at the Hassan 2 University Hospital of Fez, between January 2016 and December 2021, involving 24 cases of triple-negative breast cancer that had undergone surgical treatment.

Results The results show a predominance of breast cancer in patients aged over 35 years and still in genital activity. Invasive ductal carcinoma is the most predominant type representing 90% of cases with an initial inflammatory aspect in 10 patients. Histopronostic grades II and III represent each 47.8% of cases. In addition, a proliferation rate (ki67%) was high in more than 70% of patients. Neoadjuvant chemotherapy was prescribed in 19 patients and the time between surgery and the last chemotherapy treatment was less than 6 weeks in 74% of cases.Radical surgery (Patey) was performed in 18 patients, while only 3 patients received conservative treatment. Despite the fact that all our patients received adjuvant treatment with radiotherapy and chemotherapy, the 3-year survival rate was 53%.

Conclusion Although advances in treatment and the advent of targeted therapies, breast cancer remains the leading cause of death. Current clinical and histological classifications do not fully establish prognostic and predictive parameters for treatment response.

2022-RA-1479-ESGO SEX HORMONE RECEPTOR EXPRESSION, MSH2 AND MSH6 LOSS, BUT NOT β-CATENIN NUCLEAR TRANSLOCATION, IS CONCORDANT BETWEEN SYNCHRONOUS ENDOMETRIAL AND OVARIAN CARCINOMAS

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10.1136/ijgc-2022-ESGO.799

Introduction/Background Synchronous endometrial and ovarian carcinoma (SEOC) accounts for 10% of ovarian and 5% of endometrial cancers. SEOC tumours are staged separately but most demonstrate clonality. The ProMisE algorithm classifies endometrial carcinomas into p53 aberrant, mismatch repair deficient (MMRd), *POLE* mutant tumours and tumours of no specific molecular profile, up to ½ of which are *CTNNB1* mutant (*CTNNB1*mut).

Methodology Formalin-fixed paraffin-embedded (FFPE) tissue was obtained from 34 patients with SEOC for haematoxylin and eosin (H&E) review, and immunohistochemistry (IHC). Progesterone receptor (PR) and estrogen receptor (ER) expression was scored between 0–300. Tumours were assessed for MMRd via MLH1, MSH2, MSH6 and PMS2 staining, and for presence of nuclear β-catenin (a surrogate marker of *CTNNB1*mut).

Results Tumours were of endometrioid (55/68, 80.9%), clear cell (4/68, 5.9%) and mixed endometrioid/clear cell (9/68, 13.2%) histology, and almost all were p53 wildtype (67/68). Neither ER **(p = 0.15)** nor PR (p = 0.98) expression was statistically significantly different between paired tumours. 9 of 34 cases were MMRd (26.5%); 4 and 2 cases had MSH2/MSH6 loss and MSH6 loss respectively, and this was conserved between the paired endometrial and ovarian tumours. 16 of 34 cases (47.1%) exhibited nuclear β-catenin staining of which only 6 had conserved presence of nuclear staining between tumour sites.

Conclusion ER and PR expression, MSH2 and MSH6 loss, but not nuclear β-catenin, is concordant between paired SEOC tumours, suggesting that β-catenin function may differ between endometrial and ovarian carcinomas, even in the synchronous context. Conserved loss of MSH2 and/or MSH6 between paired tumours in a subset of cases suggests underlying Lynch syndrome. Whole exome sequencing is underway to investigate the mutational landscapes of tumours, including the mutation status of MMR genes and *CTNNB1*.

2022-RA-1576-ESGO DEEP-LEARNING-BASED ENDOMETRIAL SEGMENTATION AND AUTOMATED IMMUNE PROFILING FROM HISTOPATHOLOGICAL WHOLE SLIDE IMAGES

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10.1136/ijgc-2022-ESGO.800

Introduction/Background The rapid spread of the whole slide images (WSI) combined with deep learning models can shift the qualitative approach in pathology to the quantitative one providing evenly qualitative reports worldwide. The work aimed to explore the potential computed assisted diagnostics by automated subtyping endometrial lesions with further immunohistochemical (IHC) profiling of the malignant ones, as endometrium makes a significant part of pathologists' practice.

Methodology 721 endometrial samples for the deep learning model development and verification from the East Tallinn Central Hospital. The samples were reviewed and annotated by two pathologists and randomly divided into training and validation (271) groups; the training dataset was generated using Pathadin software. The EfficientNet-B5-based model was created as a four-class classifier (normal endometrium, hyperplasia without atypia, atypical hyperplasia, malignancy). In samples with malignancy, computer vision next detected the corresponding region on the IHC (ER, PR, p53, Her2) stained glasses and quantified it using pre-trained DeepLiif solution. DeeLiif was trained on the control samples provided with all the IHC glasses.

Results The model is the first four-type classifier for histopathological WSI classification of endometrial lesions. Tested on 271 slides from a single medical center cohort, an AUC of 0.882 was achieved, mainly failing to distinguish between atypical hyperplasia and G1 endometrioid carcinoma. For IHC, total accuracy of 0.865 was achieved, primarily failing to analyze the membranous staining of Her2.

Conclusion The algorithms successfully classified the samples and detected and analyzed the corresponding area on the IHC stained glasses, proving the concept that with proper validation and under the control of a pathologist can already be covering a part of daily routine. For further improvement, samples from different hospitals should be harvested, a model with precise diagnoses should be created, and the spatial shifting in the series of sections should be resolved.