THE VALUE OF INTRAOPERATIVE SENTINEL LYMPH NODE ANALYSIS USING OSNA TECHNIQUE IN EC

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Introduction/Background Sentinel Lymph Node Biopsy (SLNB) is effective for assessing lymph node status in endometrial cancer (EC). When sentinel lymph node (SLN) is not detected, lymphadenectomy is required to determine lymph node involvement. Intraoperative frozen section examination has low sensitivity, but the One Step Nucleic Acid Amplification (OSNA) technique offers a definitive diagnosis. Knowledge of the lymph node status of removed SLNs helps determine the need for lymphadenectomy in undetected areas, avoiding unnecessary surgery. Our objective is to present an algorithm minimizing lymphadenectomy in EC patients with undetected SLN.

Methodology We analysed 116 patients who underwent SLNB for EC between January 2021 and January 2023. We studied cases requiring OSNA based on detection rates, CK19 positivity and feasibility. Patients were stratified by preoperative risk profile, including molecular profile.

OSNA is performed in CK19(+) patients, influencing the decision to perform or omit lymphadenectomy. Omitting lymphadenectomy is justified when OSNA is positive, as it does not affect prognosis or treatment decision in undetected areas. OSNA also aided in assessing aortic lymph node involvement in adjusting radiation fields for stage IIIC1 in the low-risk group.

Results Out of 116 patients, 55 were low-risk and 59 high/intermediate risk preoperatively. Among patients with high/intermediate risk, which represents the most relevant group, 9 lacked bilateral pelvic lymphatic detection, so OSNA was performed. Additionally, 15 had aortic detection without pelvic detection.

Between low-risk patients, two had no pelvic detection, with one lacking aortic level detection and the other skipping aortic SLN search. Among the remaining 8 low-risk patients without bilateral pelvic detection, 6 had aortic detection, enabling selective OSNA.

Approximately 12.9% of the series could benefit from the lymph node status knowledge, with 56% eligible for intraoperative OSNA.

Conclusion Intraoperative OSNA reduces the need for lymphadenectomy in EC patients with undetected sentinel lymph nodes.

Disclosures No disclosures.

Abstract #957 SENTINEL LYMPH NODE BIOPSY WITH CARBON DYE FOR ENDOMETRIAL CANCER STAGING: A SINGLE CENTER, PROSPECTIVE, COHORT STUDY

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Introduction/Background Endometrial cancer is the 4th most common cancer in women. Systematic lymphadenectomy determines the disease stage and prognosis. Sentinel lymph node biopsy (SLNB) may be defined as a minimally invasive procedure compared to systematic lymphadenectomy. Many agents have been used for the detection of SLNB in endometrial cancer. Carbon dye, which has a powerful colored ability and high contrast due to its dark black color, makes the lymph nodes efficiently identified. This is the first study on the use of carbon dye during the SLNB procedure in endometrial cancer. Our aim was to evaluate the safety and efficacy of carbon dye in the detection of sentinel lymph nodes in endometrial cancer patients.

Methodology The present trial was designed as a single-center, prospective, cohort study. The data from 89 patients were collected for the present study between December 2021 – August 2022.

Results Of the 89 patients, bilateral pelvic lymphadenectomy and para-aortic lymphadenectomy were performed in 89 (100%) and 36 (40.5%), respectively. Two hundred nine sentinel lymph nodes were harvested (104 from the right side, 105 from the left side), and five of the 89 patients had positive nodes. Of the five patients with positive sentinel lymph nodes, three had micrometastasis, and one had isolated tumor cells. The sensitivity of the SLNB with carbon dye in detecting nodal metastatic disease was 97.83%. However, one patient with negative SLNB had a positive para-aortic lymph node.
with micrometastasis resulting in a negative predictive value of 98.8%.

**Conclusion** Carbon dye was an easy-to-use, cheap, and effective agent for SLNB with satisfying specificity and sensitivity rates. Carbon dye may be a promising tracer without the need for expensive and complex equipment & procedures, particularly for low-income countries. We will soon report a similar study comparing the results of carbon dye and ICG during SLNB in endometrial cancer patients.

**Disclosures** we declared that we have no conflict of interest

### #959 PREDICTION NOMOGRAM FOR AORTIC INVOLVEMENT IN ENDOMETRIAL CANCER

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**Introduction/Background** Current clinical guidelines lack algorithms for surgical nodal staging of the aortic area in endometrial cancer (EC). Although isolated aortic involvement in EC is low, it is influenced by the overall risk of nodal metastasis in EC, which is itself low (<10%). In selected groups, the incidence of aortic involvement is higher, and in any case, it represents approximately the 25%. Moreover, more than half of the cases with pelvic nodal involvement also have aortic involvement, necessitating modification of irradiation fields in most centers, which is often underestimated with imaging techniques. The aim of this study is to create a predictive model of aortic involvement for performing GC based on preoperative risk factors.

**Methodology** Retrospectively, 376 women who underwent surgical intervention for EC at Donostia University Hospital between August 2014 and July 2022 were identified. Logistic regression was used to develop a prediction model for aortic lymph node involvement, considering the low frequency of such involvement in EC. A reduced number of variables were specified a priori to minimize overfitting and prediction errors while ensuring clinical applicability.

**Results** Among the 376 patients, 25 (6.65%) were found to have aortic lymph node metastasis. In the univariate analysis, all potential predictors were more prevalent among women with aortic lymph node involvement and exhibited statistically significant associations, except for non-endometrioid histology with tumour extension beyond the uterine corpus, which showed the strongest association with positive aortic lymph nodes. In the multivariable logistic regression model, this positive association persisted, but with greater uncertainty, so only extension beyond the uterine corpus retained its statistical significance.

**Conclusion** The nomogram developed in this study could be used to estimate the risk of aortic lymph node involvement in endometrial cancer and may be useful in decision-making regarding its management.

**Disclosures** No disclosures.

### #960 MANAGEMENT OF OBTURATOR NERVE INJURY DURING LAPAROSCOPIC PELVIC LYMPHADENECTOMY

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**Introduction/Background** To present prevalence of obturator nerve injury, quality of life measures, level sensory and motor dysfunction of adductor muscle and inner thigh area, disability in postoperative period and to discuss the effectiveness of conservative approach in patients whose unilateral obturator nerve injured inadvertently during laparoscopic pelvic lymphadenectomy in patients with gynecologic cancer.

**Methodology** Case series

**Results** Between 2019 and 2023 we performed 220 pelvic lymphadenectomy procedures. 136 cases (61.8%) were laparoscopic. In 9 cases obturator nerve was injured (0.04%). In 9 patients, the injury occurred during the laparoscopic lymphadenectomy due to an endometrial carcinoma, in which immediate endoscopic treatment was not proceeded. Despite this, the patients did not experience any sensitive or functional impairment following surgery or 12 months thereafter. In light of the fact that the patients did not exhibit any symptoms of nerve damage, we forgo the idea of treating the injured nerve immediately during surgery.

**Conclusion** Our case series demonstrated that inadvertent injury to the obturator nerve during laparoscopic gynecologic cancer surgeries is a rare complication and walking difficulty resulting from non-repair of these nerve injuries is negligible. Therefore we have forgo the idea of immediate nerve repair during laparoscopic lymphadenectomy.

**Disclosures** Authors have no potential conflict(s) of interest to report.

### #961 CAN EVALUATION OF PREOPERATIVE NEUTROPHIL-LYMPHOCYTE RATIO BE USEFUL IN PREDICTION OF THE ADVANCED STAGES OF ENDOMETRIAL CANCER?: A SYSTEMATIC LITERATURE REVIEW

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**Introduction/Background** Neutrophil:lymphocyte ratio (NRL) is defined as the absolute neutrophil count divided by the absolute lymphocyte count. NRL reflects relationship between innate (neutrophils) and adaptive cellular immune response (lymphocytes) assessed during various pathological states including endometrial cancer. A normal range of