#305 RETROSPECTIVE ANALYSIS OF THE CORRELATION OF (MSI-H/DMMR STATUS AND RESPONSE TO THERAPY FOR (ENDOMETRIAL CANCER: RAME STUDY, A MULTICENTER EXPERIENCE

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Introduction/Background There is little evidence about sensitivity to chemotherapy (CT) according to microsatellite instability (MSI) high (h)/mismatch repair (MMR) deficiency (d) status in patients with endometrial cancer (EC).

Methodology The RAME study is a retrospective analysis aiming to assess response to CT in MSI-h/dMMR and MSI-low/d/ proficient (p)MMR EC patients. Primary endpoints were recurrence-free survival (RFS) for patients with no advanced disease at diagnosis and progression-free survival (PFS) and overall survival (OS) in patients with advanced/recurrent disease.

Results 312 patients treated between January 2010 and January 2022 in 4 high volume MITO centers were selected. 239 patients had endometrioid EC (76.6%), 151 had FIGO stage I at diagnosis (48.9%) and 71 were MSI-h/dMMR (22.8%), mainly detected with immunohistochemistry (92%). Median age was 65 (31–91) years. At diagnosis, no difference in terms of age (p=0.26), FIGO stage (p=0.43) and comorbidities (p=0.66) were identified between MSI-h/dMMR and MSI-low/pMMR. Among the 278 patients with no metastatic disease at diagnosis, median RFS was 100.0 months (95%CI 59.4–140.7) for MSI-pMMR and 120.9 months (60.0–181.8) for MSI-h/dMMR (Hazard Ratio 0.81, 95%CI 0.50–1.31, p=0.39). Seventy-seven patients received first-line CT for advanced/recurrent disease, 76.6% (59/77) received platinum-based CT and 19.5% (15/77) were MSI-p/pMMR. In this setting, median PFS was 10.3 months (95%CI 7.7–12.8) and median OS was 37.2 months (95%CI 28.0–46.4) for MSI-p/pMMR, median PFS was 6.3 months (95%CI 2.0–10.6) and median OS was 14.0 months (95%CI 1.0–27.1) for MSI-h/dMMR, with a significantly worse OS in MSI-h/dMMR patients (HR 2.26, 95% IC 1.04 – 4.92, p=0.039). In the subgroup of patients receiving platinum-based CT, no statistically significant difference in PFS (p=0.21) and OS (p=0.057) were detected but PFS and OS were numerically longer in the MSI-p/pMMR population.

Conclusion Patients with metastatic MSI-h/dMMR EC receiving first-line chemotherapy had numerically worse PFS and OS in comparison with MSI-h/pMMR EC.

Disclosures None

#309 PREOPERATIVE MAGNETIC RESONANCE IMAGING FOR EVALUATION OF MYOMETRIAL INVASION IN ENDOMETRIAL CARCINOMA

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Introduction/Background Endometrial cancer is the most common gynecologic malignancy in developed countries. 70–80% of patients with endometrial cancer are Stage I at diagnosis. Prognosis, recurrence and survival depend mainly on the surgical stage of the tumor. In our study, we investigated the effectiveness of preoperative MRI in demonstrating myometrial invasion.

Methodology In our study, endometrial cancer patients who underwent surgery in our clinic between April 2010 and April 2019 were retrospectively evaluated. A total of 123 patients who underwent MRI in the preoperative period were included in the study. Types other than Endometroid type Endometrium cancer were excluded.

Results When the postoperative staging of our patients was analyzed, 59 of 69 cases with superficial myometrial invasion were correctly identified by MRI. The accuracy rate of MRI in showing superficial myometrial invasion was 85%. In addition, 85 of 112 patients identified as Stage 1 by MRI were also identified as Stage 1 after surgery. According to MRI, 24% of the stage 1 patients had a more advanced stage.

Conclusion This study shows that preoperative MRI in early-stage endometrial cancer may be important in predicting the stage and thus guiding surgery. The high accuracy rate in cases with superficial myometrial invasion makes MRI valuable in patients with Stage 1 and may thus expand the use of laparoscopy in endometrial cancer. It may also reduce the need for lymphadenectomy, which may increase morbidity, in patients with Stage 1A.

Disclosures I have no potential conflict of interest to report

#311 SAFETY OF INDOCYANINE GREEN (ICG) FOR SENTINEL LYMPH NODE MAPPING IN ENDOMETRIAL CANCER

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Introduction/Background Sentinel lymph node (SLN) mapping by intracervical indocyanine green (ICG) injection has become the standard for nodal staging in endometrial cancer (EC). Adverse reactions to ICG are extremely rare, although information about the safety of this tracer in patients with a history of drug or iodine hypersensitivity is limited. We aim to evaluate the rate of allergic reactions to ICG injected during SLN mapping in EC patients.

Methodology All EC patients who underwent SLN surgical staging by ICG cervical injection at Mayo Clinic, Rochester, MN, between 2014 and 2018, were retrospectively evaluated. Any anaphylactic/allergic reaction occurring intraoperatively or within seven days after surgery was identified.