Is screening for endometrial cancer necessary in asymptomatic women treated with tamoxifen for breast cancer?

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Objective: We investigated the endometrial pathologic results in women treated with tamoxifen for breast cancer and determined the appropriate diagnostic approach to oncologic endometrial pathologic change.

Methods: The medical records of 162 patients who underwent endometrial biopsy in patients treated with tamoxifen for breast cancer were retrospectively reviewed. We compared the clinical features between the patients with endometrial intraepithelial neoplasia or endometrial cancer (EIN/EC group) and the patients with other pathologic results (others group).

Results: EIN or EC were found in ten patients (6.2%). 70.0% of EIN/EC group received tamoxifen treatment more than 3 years, while 71.7% of others group received less than 3 years ($p < 0.001$). Regardless of the presence of vaginal bleeding, EIN/EC was not found in patients with ET < 5 mm by transvaginal ultrasonography. When ET was ≥ 5 mm, the incidence rates of EIN/EC were only 2.9% in asymptomatic patients and 11.6% in symptomatic patients, respectively ($p = 0.002$). When ET was ≥ 8 mm, the incidence rates of EIN/EC were 3.8% in asymptomatic patients and 12.0% in symptomatic patients, respectively ($p = 0.002$). When ET was < 8 mm, EIN/EC was not found in asymptomatic patients, while EIN/EC was found in 7.1% of symptomatic patients.

Conclusion: The longer the use of tamoxifen, the greater the need for endometrial evaluation. However, unconditional endometrial evaluation should be avoided in patients without vaginal bleeding. When patients with vaginal bleeding show thick endometrium by TV-US, they need to undergo endometrial biopsy.

Poster (E11)

Conservative & Fertility Preservation

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JGOG2051: The safety and efficacy of repeated high-dose luteal hormone (MPA) therapy for recurrent early-stage endometrial cancer patients

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Background: The number of patients with endometrial cancer (EC) has been steadily increasing in Japan. Additionally, the number of adolescence and young adults with EC who desire fertility-sparing treatment has also increased. A previous meta-analysis showed that the initial rates of complete response (CR) to medroxyprogesterone acetate (MPA) therapy for EC and atypical endometrial hyperplasia (AEH) were 76% and 86%, respectively; however, the recurrence rates were 26% and 41%, respectively. Only some retrospective studies of a single institution on repeated MPA therapy were conducted for intrauterine recurrence following fertility-preserving therapy for EC or AEH, and showed favorable results. Therefore, multicenter prospective studies for repeated MPA therapy were highly demanded. Based on these backgrounds, the Japanese Gynecologic Oncology Group (JGOG) initiated this study to verify the efficacy and feasibility of repeated MPA therapy.

Methods: JGOG conducts a multicenter phase II trial of repeated high-dose luteal hormone therapy for intrauterine recurrence following fertility-preserving therapy for AEH or EC. The major eligibility criteria are: 1) histologically diagnosed as AEH or G1, 2) myometrial invasion ruled out by magnetic resonance imaging, 3) extrauterine lesions ruled out by computed tomography, 4) 20–42 year old, and 5) strong desire and consent for fertility-sparing treatment. The major exclusion criteria are: 1) recurrence ≥ 3 , 2) BMI ≥ 40 kg/m² 3) previous medical history of thrombosis, 4) with multiple cancer with disease-free interval < 5 years, and 5) with severe hepatic dysfunction. Patients are treated with oral MPA (600 mg/day) and are pathologically assessed by dilatation and curettage every 2 months until CR. Moreover, a hysterectomy will be recommended if the treatment duration exceeds 10 months. The primary end-point is 2-year recurrence-free survival during the follow-up period of 2 years. The secondary end-points are overall survival, progression-free survival, CR rate, pregnancy rate, adverse event, and pregnancy prognosis. One-hundred fifteen cases are needed to be recruited within 3 years, and currently Japanese 75 institutions are participating in this study. This study started in December 2020 in Japan, and the current plan is to collaborate with Korea and Taiwan.

Poster (E12)

Uterine Sarcoma

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Preoperative clinical characteristics between uterine sarcoma and leiomyoma in patients with uterine mass: a case-control study

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Objective: To determine the preoperative clinical characteristics associated with uterine sarcoma in patients with uterine mass.

Methods: We retrospectively reviewed medical records of patients who presented with uterine mass undergoing surgery at Ramathibodi Hospital, with a pathologically confirmed diagnosis, from April 1, 2000 to October 31, 2019. The cases were patients with uterine sarcoma, whereas the controls were patients with leiomyoma diagnosed in the same year, with a proportion of 1 case per 4 controls. The association between preoperative clinical characteristics and uterine sarcoma were analyzed.

Results: There were 18,218 patients with uterine mass undergoing surgery at Ramathibodi Hospital during the study period. Uterine sarcoma was diagnosed in 68 patients. Thus, the incidence of uterine sarcoma was 0.37%. Patients with uterine mass, patients with age >40 years old, postmenopause, postmenopausal bleeding, abnormal uterine bleeding, palpable mass, recognition of rapid growing mass, and with single tumor nodule identified by ultrasonography were more likely to be diagnosed with uterine sarcoma with adjusted odds ratio (95% confidence interval) of 3.30 (1.29–8.43), 8.57 (2.38–30.82), 35.35 (2.94–425.13), 3.39 (1.40–8.23), 4.50 (1.78–11.36), 6.91 (2.08–22.91) and 4.70 (1.91–11.60), respectively.

Conclusion: Clinical characteristics, i.e., age >40 years, postmenopause, postmenopausal bleeding, abnormal uterine bleeding, palpable mass, mass with rapid growth, or single uterine nodule identified by ultrasonography were considered an independently strong association with uterine sarcoma in women who presented with uterine mass.

Poster (E13)

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Prevalence of abnormal MMR proteins in newly diagnosed endometrial cancer patients

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Objective: To estimate the prevalence of abnormal mismatch repair (MMR) proteins in newly diagnosed endometrial cancer patients who underwent surgery aged less or equal than 55 years old.

Methods: A cross-sectional study with a medical record review of the endometrial cancer patients who underwent surgery

between January 2014 and December 2019. The clinical and pathological data were collected. The paraffin tissue blocks and slides were reviewed. Tissue microarray analysis and immunohistochemistry (IHC) of MMR proteins were performed by one gynecologic pathologist. The prevalence of abnormal MMR was estimated. The clinical, pathological data and related factors were analyzed.

Results: The 44 of 188 patients (23.4%) had MMR proteins deficiency (dMMR). dMMR pattern showed as pair of MLH1 & PMS2; MSH2 & MSH6, and isolated PMS2; MSH6; MSH2 which were 22/44 (50%), 8/44 (18.2%), and 6/44 (13.6%), 5/44 (11.4%), 3/44 (6.8%), respectively. The patients with dMMR proteins significantly had body mass index (BMI) <25 kg/m² (56.8% vs. 38.9% in deficient and proficient MMR proteins, respectively) (p=0.036). Stage IIIC1 is associated with dMMR proteins (25% vs. 7.6% in deficient and proficient MMR proteins, respectively) (p=0.004).

Conclusion: In newly diagnosed endometrial cancer patients aged less or equal than 55 years old revealed 23.4% of dMMR proteins from IHC. MMR proteins-deficient associated with BMI <25 kg/m² and stage IIIC1.

Poster (E14)

Gynecologic Cancer Screening

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Risk factors in young reproductive women with endometrial cancer: an observational study

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Objective: Incidence rates of endometrial cancer are increasing over the time in all ages, corresponding with an increase in the young women. Multiple risk factors have been identified such as unopposed estrogens, nulliparity, obesity, family history of malignancy, polycystic ovaries, diabetes, hypertension etc. The objective of study was to conduct clinic-pathological analysis and predict the risk factors for development of endometrial cancer in reproductive age group women in Indian population and to identify preventive measures for this group.

Methods: A retrospective review of women with endometrial cancer was performed. Medical records analyzed for histopathologically confirmed and treated endometrial carcinoma patients between February 2012 and August 2020. Out of 129, only 10 women were pre-menopausal and under the