Background: Clinical trials are important to develop new treatment and disease prevention strategy for cervical cancer. Cervical Cancer Committee of Korean Gynecologic Oncology Group (KGOG) have been conducting several clinical trials to contribute to overcome the uterine cervical cancer. We would like to briefly introduce our efforts in this presentation.

Methods: Cervical Cancer Committee of KGOG is conducting 8 clinical trials including 3 international collaborating studies, 2 prospective clinical trials and 3 retrospective studies. Two international studies were as follows: 1) KGOG-1008 is collaborating study with GOG-263: Randomized phase III clinical trial of adjuvant radiation vs. chemoradiation in intermediate risk, stage I/IIA cervical cancer treated with initial radical hysterectomy and pelvic lymphadenectomy; 2) KGOG-1023 is a joint study with RTOG-0724: Phase III randomized study of concurrent chemotherapy and pelvic radiation therapy with or without adjuvant chemotherapy in high-risk patients with early-stage cervical carcinoma following radical hysterectomy. Following 2 clinical trials are being conducted independently by KGOG: 1) KGOG-1036: Prospective-specimen-collection and retrospective blinded-evaluation study of human papillomavirus (HPV) viral load to improve cervical cancer screening. The purpose of KGOG-1036 is to examine whether genotype specific quantitative HPV testing can predict the progress of low grade squamous intraepithelial lesion in uterine cervix into high grade lesion requiring treatment; 2) KGOG-1038: Phase II study of belotecan monotherapy in patients with recurrent or persistent cervical cancer. The aim of KGOG-1038 is to demonstrate the objective response rate of belotecan monotherapy for the treatment of recurrent or persistent cervical cancer. The study is recruiting 21 subjects with recurrent or persistent cervical cancer. In addition, 2 retrospective studies are ongoing: 1) KGOG-1037: Impact of metformin medication on survival outcome of cervical cancer. The study is to examine the impact of metformin medication on the prognosis of cervical cancer in patients with diabetes mellitus; 2) KGOG-1042: Prediction of ovarian transposition in young patients with early-stage cervical cancer undergoing surgery (PRETTY): a Korean multicenter retrospective study. The prediction model developing.

Poster (C27)

Cervical Cancer

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Ovarian transposition and cervical cancer

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Transposition of ovaries remains a basic surgical technique to preserve ovarian function for fertility outcome and hormonal status with acceptable risk for metastases in premenopausal cervical cancer. Cervical cancer is a major gynecologic malignancy worldwide. In early-stage cervical cancer, surgery is the main treatment, opposite to the locoregional stage or metastatic disease that concurrent chemoradiation remains the mainstay management. Premature ovarian insufficiency in irradiated field leads to cardiovascular morbidity, osteoporosis, sexual dysfunction, infertility, poor psychological well-being and a reduced quality of life. Advanced cervical cancers unfortunately occurred in younger women with longer survival made the ovarian transposition to be indicated. Transposition of ovaries aims to place the ovaries outside the irradiated field in order to diminish the exposure to radiation and total dose of irradiation. We present the laparoscopic ovarian transposition with suture and clip in a 20-year-old woman with cervical cancer stage IIB.

Uterine corpus cancer

Poster (E01)

Endometrial Hyperplasia, Endometrial Intra-epithelial Neoplasia, and Endometrial Cancer

<https://doi.org/10.3802/jgo.2021.32.S1.E01>

Adjuvant chemotherapy alone compared with chemotherapy plus radiotherapy for stage III endometrial carcinoma

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Objective: To compare treatment outcomes of adjuvant chemotherapy alone (CMT) and adjuvant chemotherapy followed by radiotherapy (CMT/RT) for stage III endometrial carcinoma.

Methods: Medical record of 211 patients with stage III endometrial cancer (International Federation of Gynecology and Obstetrics 2009) who underwent surgical staging at Faculty of Medicine Siriraj Hospital, Mahidol University during 2007–2019 were retrospective reviewed. Patients received either adjuvant CMT or adjuvant CMT/RT. Treatment outcomes between 2 groups of patients were compared at 2 years.

Results: There were 123 patients received adjuvant CMT and 88 patients received adjuvant CMT/RT. Baseline characteristics such as age, body mass index, pathology were not different between both 2 groups. Most patients in CMT group had stage IIIA (41.5%), while most patients in CMT/RT group had

stage IIIC1 (55.7%). Patients who received adjuvant CMT/RT developed lower vaginal recurrent rates than adjuvant CMT group (1.1% vs. 9.8%; likelihood ratio 8.05, $p < 0.05$). However pelvic and para-aortic lymph node recurrences, distant recurrences and 2-year overall survival were not different between 2 groups.

Conclusion: Adjuvant chemotherapy followed by radiotherapy offered no benefit for pelvic control or overall survival compared with adjuvant chemotherapy alone for patient with stage III endometrial carcinoma. However, adjuvant chemotherapy followed by radiotherapy reduced vaginal recurrence compared to adjuvant chemotherapy alone.

Poster (E02)

Endometrial Hyperplasia, Endometrial Intra-epithelial Neoplasia, and Endometrial Cancer

<https://doi.org/10.3802/jgo.2021.32.S1.E02>

Analysis of antitumor activity of dostarlimab by tumor mutational burden (TMB) in patients with endometrial cancer (EC)

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Objective: GARNET (NCT02715284) is assessing antitumor activity and safety of dostarlimab, an anti-programmed death 1 receptor therapy, in patients with solid tumors. We report on association of antitumor activity and tumor mutational burden (TMB) in 2 endometrial cancer (EC) cohorts.

Methods: A phase 1, multicenter, open-label, single-arm, dose escalation and cohort expansion study. Two expansion cohorts enrolled pts with advanced/recurrent EC (deficient mismatch repair [dMMR; cohort A1] and proficient [MMRp; cohort A2] determined by immunohistochemistry). Patients received dostarlimab 500 mg IV Q3W for 4 cycles, then 1,000 mg IV Q6W until disease progression/discontinuation. Primary endpoint was objective response rate (ORR) by RECIST v1.1. TMB status was an exploratory biomarker determined using the FoundationOne test (TMB-High [TMB-H]: ≥ 10 mutations/megabase; TMB-Low [TMB-L]: < 10 mutations/megabase).

Results: Two hundred forty-five patients were included, 103 (TMB-H: 85; TMB-L: 13; TMB missing: 5) in A1 and 142 (TMB-H: 9; TMB-L: 128; TMB missing: 5) in A2. ORRs were 44.7% (A1) and 13.4% (A2). In TMB-H pts, ORRs were 44.7% (A1) and 44.4%

(A2). In TMB-L pts ORRs were 23.1% (A1) and 11.7% (A2).

Conclusion: TMB-H status was more frequent in dMMR patients, a known association with these biomarkers, and correlated with higher ORRs in both cohorts. GARNET was not powered to assess antitumor activity by TMB status, and interpretation is limited by the small number of pts in each subgroup. Additional mutational analysis is ongoing.

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Poster (E03)

Gynecologic Pathology, Genetics and Epidemiology

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Analysis of microsatellite instability status and tumor mutational burden in Chinese endometrial cancer patients

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Objective: Immune checkpoint inhibitors (ICIs), especially pembrolizumab, has yielded encouraging results in recurrent endometrial cancer (EC). Microsatellite instability (MSI) and tumor mutational burden (TMB) are predictive biomarkers for ICIs. In this study, the relationship between the underlying cause(s) of MSI and TMB were investigated in Chinese patients with EC.

Methods: Eighty-six female Chinese patients with EC involved were tested by OncoDrug-Seq™ 603-gene panel assay through next generation sequencing using Illumina NovaSeq 6000. Fifty patients of ECs with both MSI and TMB available were identified.

Results: There were 11 (12.7%) individuals who had MSI-H and the rest had MSS. Twenty-one individuals had TMB-H and 112 patients had TMB-L. The median TMB was 12.7. The correlation between TMB and MSI were significant. Patients with MSI-H status had a significantly higher median TMB than patients with MSS status (17.1 vs. 12.7, $p = 0.0006$). The correlation between gene mutation of MMR genes (*MLH1*, *PMS2*, *MSH2*, and *MSH6*) and TMB were further explored 8 of 50 patients carried the four genes mutation was associated with a higher median TMB 77.0 mut/Mb (range=12.0–248 mut/Mb). 4 demonstrated MSH6 mutation (4/8) was associated with a much higher median TMB (96 mut/Mb), while 75% (3/4) of MSH6 mutations showed MSI-H.