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

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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.

Conclusion: EC patients with MSI-H status was associated with higher median TMB. TMB varies by underlying cause(s) of MSI, this heterogeneity may contribute to differences in response to ICI.

Poster (E04)

Gestational Trophoblastic Neoplasia

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Clinical characteristics and prognostic factors of gestational trophoblastic neoplasia patients: a comparison between ultra high-risk and other risks

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Objective: To evaluate the treatment outcomes and prognostic factors in patients who had ultra high-risk gestational trophoblastic neoplasia (GTN) compared with those who had low-risk and high-risk GTN.

Methods: The medical records of GTN patients treated in Maharaj Nakorn Chiang Mai Hospital between January 1999 and December 2019 were retrospectively reviewed. The overall survival rate was calculated with the Kaplan-Meier method and prognostic factors were analyzed by univariate and multivariate approaches.

Results: During the study period, 160 GTN patients were identified. Of these patients, 98 (61.2%) were classified as low-risk, 31 (19.4%) as high-risk, and 31 (19.4%) as ultra high-risk GTN. One patient in the low-risk group and 1 in the high-risk group underwent hysterectomy without adjuvant chemotherapy due to spontaneous regression of serum β -hCG. One patient with ultra high-risk GTN died before receiving chemotherapy. Of 97 low-risk GTN patients, 80 (82.5%) were treated with either single methotrexate or actinomycin D. Twenty (66.7%) of 30 high-risk GTN patients were initially treated with EMA/CO (etoposide, methotrexate, actinomycin D, cyclophosphamide, vincristine) regimen as first-line chemotherapy, while 24 (80%) of 30 patients with ultra high-risk GTN received EMA/CO as first-line chemotherapy. Overall, after completion of treatment with first-line chemotherapy and/or salvage treatment, patients with ultra high-risk GTN had significantly worse treatment outcomes than those who had low- and high-risk GTN with the remission rate of 63.3% vs. 96.9% and 80.0%, respectively ($p<0.01$). The 5-year overall survival rate of the patients with ultra high-risk GTN was significantly lower than those with low- and high-risk GTN (56% vs. 96% and 80%, respectively, $p<0.001$). By multivariable analysis, significant prognostic

factors were antecedent term pregnancy with the hazard ratio (HR) of 11.50 (95% confidence interval [CI]=3.56–37.22; $p<0.01$) and brain metastasis (HR=4.61; 95% CI=1.73–12.28; $p<0.01$).

Conclusion: Ultra high-risk GTN patients had significantly worse survival outcomes compared with those who had low-risk and high-risk GTN. The significant prognostic factors were antecedent term pregnancy and brain metastasis.

Poster (E05)

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

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Endometrial cancer presenting with bone metastasis: a case report and review

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Objective: Endometrial cancer with bone metastasis is rare and extremely poor survival outcome. The 1-year overall survival (OS) is 33.8%. Several factors affect the survival including tumor grade, tumor subtype, liver and brain metastasis. In literatures review, multimodality treatment were independent predictors associated with increase OS.

Methods: Review of a case and literatures.

Results: We present the case of a 59-year-old woman who was referred from the orthopedist to the gynecological clinic with right leg pain and pelvic mass for 3 months. She also had scanty vaginal bleeding. Computed tomography scan showed ill-defined enhancing lesion of 9.1×10.7×12.2 cm sized. It involved both ovaries, uterus, right pelvic sidewall, distal right iliopsoas muscle. Bilateral external iliac lymphadenopathy and peritoneal metastasis were identified. She received endometrial biopsy and the result was poorly differentiated endometrioid carcinoma. Bone metastasis was found in SI joint from bone scan. A diagnosis was an advanced stage endometrial cancer with bone metastasis. Multidisciplinary team planed for treatment with multimodality therapy. She received initial treatment with systemic chemotherapy (carboplatin and paclitaxel) for 3 cycles and followed by pelvic radiation therapy. Hysterectomy and bilateral salpingo-oophorectomy were performed after radiation and additional 6-cycle chemotherapy were given postoperatively. She felt free from leg pain and had normal walk. Unfortunately, she returned to have leg pain 5 months after completion of treatment. The patient is regularly followed up with best palliative care.

Conclusion: Bone metastasis from endometrial cancer is rare and has poor prognosis. Multidisciplinary team approach is mandatory to perform appropriate treatment to improve clinical outcome and quality of life.