Conclusion The PTC shows an excellent prognosis with a low SBR grade and a molecular profile luminal A and a low incidence of recurrence.

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VENOUS THROMBOEMBOLISM IN PATIENTS RECEIVING NEOADJUVANT CHEMOTHERAPY FOR OVARIAN CANCER

K Black*, 5 J Ghosh, 6 N Singh, 8 P Chu, 5 S Pin. 1Faculty of Medicine and Dentistry, University of Alberta, Canada; 2Cumming School of Medicine, University of Calgary, Canada

Objectives The purpose of this study is to determine the incidence of venous thromboembolism (VTE) in patients with ovarian cancer receiving neoadjuvant chemotherapy (NACT), to determine the effect of VTE on overall survival, and identify risk factors of VTE in patients receiving NACT.

Methods This is a retrospective cohort study of patients diagnosed with primary ovarian/fallopian tube/peritoneal cancer and treated with NACT between June 2013 to June 2016. The primary outcome was incidence of VTE during NACT. The secondary outcomes were risk factors for VTE and overall survival. Demographic data, histology, stage, chemotherapy treatment, and incidence of VTE were collected. Statistical analysis included Kaplan-Meier estimates, and univariate and multivariate Cox regression analysis.

Results 284 patients were included in the study. The average age at diagnosis was 63.8 years old. The incidence of VTE during NACT was 13.3%. The median overall survival for the study population was 25.23 months. Kaplan-Meier estimates demonstrate a decrease in overall survival in patients who had a VTE during NACT (14.98 months, 95% CI 14.48 – 16.49) compared to patients who did not (26.81 months, 95% CI 22.76 – 30.86) p < 0.0001. Multivariate analysis identified albumin < 35 (HR 2.56), BMI > 30 (HR 2.48), and serous histology (HR 2.90) as risk factors for VTE during NACT.

Conclusion Patients with ovarian cancer receiving NACT are at an increased risk of VTE, which is associated with a shorter overall survival. These findings suggest that thromboprophylaxis may have a role in this patient population.

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CLINICOPATHOLOGICAL SIGNIFICANCE OF FOXL2 AND TERT PROMOTER MUTATIONS IN ADULT TYPE GRANULOSA CELL TUMOR OF THE OVARY

Y Shoburu*, 5 Yanagida, 7 Kiyokawa, 8 Iwamoto, 8 Suzuki, 8 Naguchi, 8 Kaya, 8 Hirose, 8 Kuroda, 8 Kawabata, 8 Takahashi, 8 Iida, 9 Yanaihara, 9 Takano, 8 Yamada, 5 Nishi, 8 Saitou, 8 Takenaka, 8 Oomoto. 1Department of Obstetrics and Gynecology, the Jikei University School of Medicine, Japan; 2Department of Medical Pathology, the Jikei University School of Medicine, Japan

Objective Adult type granulosa cell tumor (aGCT) of the ovary is characterized by late recurrence, and no effective treatment strategy is established. The diagnosis of aGCT is difficult because of its rarity. Recently, FOXL2 C402G mutation was detected in 92% of aGCTs, and the presence of TERT promoter mutation was reported to be associated with worse prognosis. We analyzed the mutational status of FOXL2 and TERT promoter of aGCT tumor samples to investigate the impact on accurate diagnosis and prognosis.

Methods FOXL2 and TERT promoter mutational status of the 64 primary and 8 recurrent aGCT FFPE samples were assessed by allelic discrimination assay. H&E slides of the primary samples which had wild-type(wt) FOXL2 were reviewed by two gynecologic pathologists and the cases with ambiguous morphology were excluded as aGCT mimicking tumor. The characteristics and prognosis of molecularly/pathologically confirmed aGCTs (MP-aGCTs) were analyzed in each clinical parameters and mutational status.

Results Median follow-up duration was 73 months. Three primary samples were diagnosed as aGCT mimicking tumor. Of the 61 MP-aGCTs, 46 (75%) harbored FOXL2 mutation and 10 (16%) cases had TERT promoter mutation. Clinical stage and older age were the prognostic factor for recurrence. TERT promoter mutation was highly identified in older patients and larger tumors. The presence of heterozygous FOXL2 C402G mutation showed the tendency of worse prognosis.

Conclusions The importance of mutational analysis in the diagnosis, long term observation of the patients, and the functional analysis of FOXL2 C402G mutation was highlighted.

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FIRSTLINE MAINTENANCE PARP INHIBITORS IN ADVANCED OVARIAN CANCER: A NETWORK META-ANALYSIS FOR COMPARATIVE EFFICACY AND ADVERSE EVENTS

P Haddad*, K Gallagher, D Hammond. LSUHSC-S/Overtor Brooks VAMC, USA

Background Several studies explored the clinical benefit of maintenance PARP inhibitors (PARPI) and antiangiogenic agents (AA) in advanced ovarian cancer (aOC) with varied results. We conducted this analysis to expand our knowledge of the relative adverse-events (AE) and efficacy of firstline maintenance PARPI and AA in aOC.

Methods A review of the medical literature was conducted using online databases. Inclusion criteria consisted of English language; diagnosis of aOC; firstline maintenance treatment with Olaparib (O), Niraparib (NR), Veliparib (V), Bevacizumab (B), Pazopanib (P), Nintedanib (NN), and control (C); and phase 3 randomized studies reporting progression, death, and AE. A frequentists and Bayesian network meta-analyses were conducted using netmeta package and random-effects model.

Results Seven studies comprising 7,770 participants were included. The relative risk (RR) of progression and death (P&D) was highest in C and B>NN>P/V/NR/O in decreasing order. RR of AE≥3 was highest in P>NR>O/NN/B/V/C in decreasing order. PARPI significantly improved PFS in patients with homologous-recombinant deficiency (HRD)+ or - , BRCA + or -, BRCA2+, and Stages 3 and 4. PARPI demonstrated an equivalent reduction in RRP&D in BRCA+A patients. In HRD+, O had the lowest RRP&D followed by NR then V in increasing order. However, in HRD-, V had the lowest RRP&D followed by NR then O.