

predicted by a kNN model that included age and CCI (figure 1).

Conclusion The k-NN algorithm is a versatile and promising tool for R0 resection in HGSOC patients, which outperforms logistic regression. The model, which is very much reflective of 'previous clinical experience' can be directly available to clinicians and is expected to improve accuracy with data expansion.

Disclosures No disclosures.

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SURVIVAL IMPLICATION OF PRE-TREATMENT IMAGING TUMOR DISSEMINATION PATTERN IN PATIENTS SURGICALLY TREATED FOR ADVANCED HIGH GRADE SEROUS OVARIAN CANCER

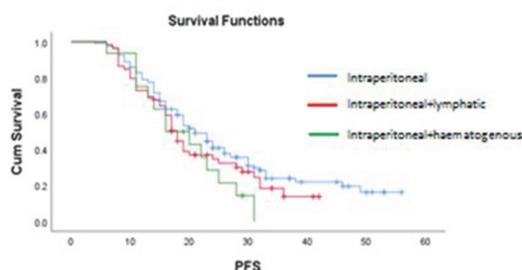
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Introduction/Background Clarity and precision about the anatomical extent of disease in cancer is essential for prognostication, research, and cancer-control activities. To select effective therapeutic approaches for advanced high-grade serous ovarian cancer (HGSOC), yet the most prevalent and lethal form, it is important to identify stratification factors that could accurately predict prognosis before initial intervention. We hypothesized that women with different tumor dissemination patterns at pre-treatment imaging would have different prognosis.

Methodology This was a retrospective analysis of 209 FIGO stage III-IV HGSOC women, who were scheduled for cytoreductive surgery in SJUH Leeds between Jan 2015 to Dec 2018 with curative or life-prolonging intent. CT scans were reported by an MDT radiologist. Three pre-treatment imaging dissemination patterns were identified and verified by final histology. A Cox proportional hazard analysis was used to test the effect of imaging dissemination patterns, age, performance status (PS), timing of surgery (upfront vs delayed cytoreduction), surgical complexity score (SCS), residual disease (RD), disease score, and type of chemotherapy on survival. Kaplan-Meier survival curves were produced using SPSS® 26.

Results There were no statistical differences in the cytoreduction rates amongst the three groups (figure 1). The mean progression free survival (PFS) for patients grouped as intraperitoneal (n=137), intraperitoneal and lymphatic (n=56), and intraperitoneal and haematogenous (n = 16) was 26.5 (95% CI 23.4–29.6), 21.3 (95% CI 18.3–24.4) and 19.1 months (95% CI 15.1–22.9), respectively. The mean overall survival (OS) was 45.8 (95% CI 41.5–50.2), 34.8 (95% CI



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29.2–40.3) and 30.7 months (95% CI 24.5–36.9), respectively (p=0.05) (figure 2). The mean PFS and OS for the entire cohort was 25 months (95% CI 22.6–27.3) and 41.8 (95% CI 38.3–45.2), respectively. For PFS, Cox regression analysis identified PS (HR 1.23, 95% CI 1.1–1.5, p=0.04), RD (HR 0.69, 95% CI 0.46–0.98, p=0.05) as statistically significant. For OS, Cox regression analysis identified PS (HR 1.47, 95% CI 1.14–1.89, p=0.03), dissemination pattern (HR 1.36, 95% CI 1.02–1.86, p=0.05) as statistically significant.

Conclusion For HGSOC prognosis, one should consider not only the patient's disease burden but also their overall medical status and ability to undergo extensive surgery. Prolonged survival rates were found predominantly in those patients with intraperitoneal only pre-treatment imaging dissemination pattern. Baseline tumor dissemination pattern can be a prognostic factor for overall survival. Classification of such patterns can help counsel patients initially on their prognosis and identify those who might benefit from intraperitoneal chemotherapy.

Disclosures No disclosures.

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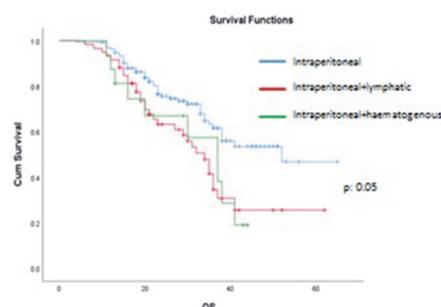
CONTRASTING CLINICAL CHARACTERISTICS AND TREATMENT PATTERNS IN WOMEN WITH NEWLY DIAGNOSED ADVANCED-STAGE OVARIAN CANCER IN AUSTRALIA, SOUTH KOREA AND TAIWAN

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Introduction/Background Epithelial ovarian cancer (EOC) is often associated with diagnosis at an advanced stage, poor prognosis and high mortality. Limited data exist on the clinical management of ovarian cancer (OC) patients in the Asia-Pacific region. We evaluated secondary databases from Australia, South Korea and Taiwan to review the current standard of care in a real world setting prior to the introduction of poly-(adenosine diphosphate-ribose) polymerase inhibitor (PARPi) maintenance after first-line chemotherapy.

Methodology Data from medical records of nearly 1,000 women diagnosed with advanced-stage EOC in a 5 year period, between January 2014 and December 2018 were obtained from clinic- (Taiwan, South Korea) and cohort-based



(Australia) OC registries. Patients on first-line maintenance with PARPis were excluded. Treatment characteristics including the use of neoadjuvant therapy, outcomes of cytoreductive surgery and the use of bevacizumab as maintenance were summarised with descriptive statistics. Duration of treatment, time to real world progression and any other time-to-event outcomes (e.g. overall survival, platinum based chemotherapy-free interval and time to first subsequent treatment and surgery) will be analysed using Kaplan Meier methodology.

Results Table 1 describes the demographic characteristics and treatment patterns of the study population. Overall, patients received a median of 6 cycles of primary platinum chemotherapy; complete or partial remission was the most common outcome. For patients with data on progression, the median time to first progression in months (two sided 95% confidence interval) was 16.2 (14.6–18.1), 17.9 (16.2–19.3) and 17.2 (14.7–19.7) in Australian, South Korean and Taiwanese patients, respectively. From the currently available dataset of patients with high grade serous type investigated for germline BRCA1/2 mutations: 30/169, 17.8% (Australia), 80/354, 22.6% (South Korea) and 7/21, 33.3% (Taiwan) of patients tested positive for germline BRCA1/2 mutations.

Abstract 257 Table 1 Demographic characteristics and treatment patterns in epithelial ovarian cancer

Parameters	Australia (N=223)	South Korea (N=513)	Taiwan (N=120)
Median age, years	65.2	56.0	59.5
Median weight, kgs	70.0	55.6	56.0
High-grade serous tumour, %	82.5	84.6	100*
Interval debulking surgery/neo-adjuvant chemotherapy, %	56.5	24.0	9.1
Platinum chemotherapy, %	98.2	98.6	92.5
Bevacizumab+chemotherapy, n (%)	66 (29.6)	84 (16.4)	23 (19.2)
Maintenance-bevacizumab, n (%)	59 (26.45)	75 (14.6)	12 (10.0)
Maintenance-others, n (%)	6 (2.7)	2 (0.4)	3 (2.5)

*Taiwan only recruited women with high-grade serous ovarian cancer

Conclusion Although there were differences in demographics and treatment patterns, advanced-stage EOC had poor prognosis and relatively short progression-free intervals across Asia-Pacific countries with well developed healthcare systems, highlighting the need to develop novel approaches to improve patient outcomes. Variation in the germline BRCA1/2 mutation rates across three datasets is probably due to differences in the composition of the contributing registries (clinic or cohort-based).

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SERUM MARKERS AND CYTOKINES IN PATIENTS WITH OVARIAN CANCER, ENDOMETRIOSIS OR OTHER BENIGN OVARIAN TUMOURS

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Introduction/Background The gold standard of serum tumour markers to detect ovarian cancer is cancer antigen 125 (CA125), human epididymis protein-4 (HE-4) and risk of ovarian malignancy algorithm (ROMA). However there is still need to improve its accuracy. Cytokines play a crucial role in tumour growth and progression according to proangiogenic and immunosuppressive acting. The aim of this study was to investigate the potential use of serum levels of selected cytokines in preoperative diagnosing of adnexal mass.

Methodology The study group consisted of 120 patients: 35 with epithelial ovarian cancer (EOC) and 85 with benign ovarian tumours (24 teratomas, 27 endometriotic and 34 other epithelial). We measured in sera obtained preoperatively the level of CA125, HE-4 and the panel of 6 cytokines: interleukin (IL) 1 β , 6, 8, 10, 12, tumour necrosis factor (TNF) using cytometric bead array (CBA) and one chemokine CXCL1/GRO- α by ELISA method.

Results Serum levels of IL-6, IL-8, IL-10 and CXCL1/GRO- α were significantly higher in patients with ovarian cancer (2045 pg/ml; 208; 32; 356 pg/ml, respectively) than in women with benign ovarian tumours (17 pg/ml; 29; 16; 127 pg/ml, respectively). The similar pattern was present with standard ovarian cancer markers – CA125 (959 vs 43 U/ml) and HE-4 (534 vs 51 pmol/l). Other investigated cytokines had similar levels in all groups of patients. Analyzing the differences in the subgroups of women with benign ovarian tumours we didn't observe any significant except CA125 and IL-8; they were slightly elevated in cases of endometriotic ovarian cysts.

Conclusion Proinflammatory cytokines (IL-6, IL-8), immunosuppressive (IL-10) and CXCL1/GRO- α were elevated in sera of EOC patients what points on their role in cancer development. Moreover, they might be useful in preoperative differential diagnosis of ovarian tumors, as a supplemental markers especially as they were not elevated in cases of endometriosis.

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REAL-WORLD-DATA ON PLATINUM OUTCOMES AFTER PARP INHIBITORS PROGRESSION IN HIGH GRADE SEROUS OVARIAN CANCER PATIENTS

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