patients with EC and healthy female subjects. MiRNA was isolated and qPCR was used to detect expression levels of miRNAs.

Results A total of 76 women were included; 36 EC patients, 40 healthy controls. A distinct panel of miR-200a, miR-200b, miR-200c, miR-205 and miR-182 showed AUC of 0.958, sensitivity 92%, specificity 89%, positive predictive value of 89% and negative predictive value of 91% in diagnosing EC. MiR-182 expression levels were significantly related to high-grade endometrioid tumours compared to low grade.

Conclusion We demonstrated high diagnostic accuracy of miRNA for detecting EC. In addition, miRNA contributed to improved distinguishing between high-grade and low-grade endometrioid tumours. Validation of miRNA expression levels in urine will be performed in order to further optimise a non-invasive diagnostic tool.

IGCS20_1465

PROSPECTIVE EVALUATION OF AN ERAS PATHWAY AT A GYNAECOLOGICAL ONCOLOGY UNIT IN OSLO, NORWAY

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Objective Although, endometrial cancer (EC) is commonly diagnosed at an early stage and has a favorable prognosis, recurrent disease usually shows poor prognosis. However, clinicopathological prognostic factors for recurrent EC have been still unclear. The current study aimed to identify clinicopathological prognostic factors, especially in long term survivors of recurrent EC.

Methods We collected 2044 patients who underwent surgery including hysterectomy and were pathologically diagnosed as EC in our hospitals between 2001 and 2018. Clinicopathological information and survival data were retrospectively obtained by the review of medical record. Among 2044, 131 patients were included in this retrospective analysis. In recurrent cases, we analyzed the prognostic factors for long-term survivors of recurrent EC. Then we defined long-term and short-term survivors, as patients who survived ≥ 3 years (n =53) and died within 3 years (n =78) after first recurrence, respectively. The correlation between prognosis and clinicopathological factors was statistically analyzed.

Results In the multivariate analysis of long-term survivors, we identified that TTP ≥ 1 year after surgery (P <0.01), surgical reduction of the first recurrence (P =0.03), non-peritoneal metastasis (P =0.045), were significantly associated with the long-term survivors of recurrent EC.

Conclusion TTP ≥ 1 year after surgery, non-peritoneal metastasis, surgical reduction of first recurrence were good prognostic factors of long-term survivors in recurrent EC.

IGCS20_1467

MACHINE LEARNING MODELS TO PREDICT SURVIVAL OUTCOMES AFTER RADICAL Hysterectomy ACCORDING TO SURGICAL APPROACH IN PATIENTS WITH FIGO STAGE IB CERVICAL CANCER

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Objective To develop preoperative machine learning models predicting survival outcomes according to the surgical approach in early-stage cervical cancer.
Methods We retrospectively identified patients with FIGO stage IB cervical cancer who underwent either primary open RH or laparoscopic RH at three tertiary institutional hospitals between 2000 and 2018. Patients’ clinicopathologic, image, and survival data were collected. The whole dataset was separated into training and test sets with a 4:1 ratio. Combining both statistical and deep neural network models, we constructed hybrid ensemble predictive models for 5-year PFS and OS rates. Only the variables that could be obtained before surgery were used. Model development was conducted in the training set with ten-fold cross-validation, and the developed models were validated in the test set.

Results In total, 1,141 patients were included; 578 and 563 received open RH and laparoscopic RH, respectively. The median length of observation was 57.6 months during which 157 patients (13.8%) experienced disease recurrence and 86 patients (7.5%) died. In terms of preoperative prediction, while the logistic regression model showed AUCs of 0.68 and 0.71 for 5-year PFS and OS rates, respectively, the ensemble model showed better performance: AUCs, 0.71 and 0.78. These models commonly included the surgical approach as the main prognostic factor.

Conclusion We developed preoperative models predicting survival outcomes according to the surgical approach in early-stage cervical cancer. These models will be useful for making decisions in choosing open RH or laparoscopic RH in individualized counseling practices.

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DETERMINING THE HAEMATOLOGICAL MORBIDITY ASSOCIATED WITH CYTOREDUCTIVE SURGERY

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Introduction Cytoreductive surgery (CRS) is a complex procedure performed in the setting of epithelial ovarian cancer (EOC), pseudomyxoma peritonei (PMP) and colorectal metastases (CRCm). Due to the complexity of the surgery with significant fluid volume exchange calculating estimated blood loss (EBL) is challenging. To determine the hematological morbidity associated with CRS we reviewed the EBL and transfusion rates in a National Peritoneal Cancer Centre.

Method The surgical oncology anonymized database provided data on demographics, surgical oncological intervention, timing, EBL, laboratory measurements, and transfusion requirements. The EBL recorded from the operative notes calculated in the operating room by the gravimetric method (suction volume and swab weights).

Results A total of 120 patients who underwent CRS±HIPEC, with a median age of 57 were included. The median EBL for the entire cohort (n=120) was 981 ml (range 50–6500). The median EBL for metastatic colorectal CRS (n=38) was 830 ml (range 50–3800 ml), for ovarian cancer (n=51) was 900 ml (range 150–4600 ml) and for PMP (n=31) was 1300 (range 100–6500). The average number of red cells (RCC) transfused for the entire cohort was 1.14 (SEM 0.147), and was similar for ovarian cancer (1.28 (SEM 0.251) and PMP (1.26 (SEM 0.314)) but was significantly lower in the colorectal metastases group (0.87 (SEM 0.189)).

Conclusion CRS for EOC, PMP, or CRCm is associated with significant hematological morbidity, which should be taken into account for pre-operative optimization. The variation in EBL reflects the heterogeneous nature of these complex procedures, with more extensive surgery often warranted in PMP and EOC.