informed alternative treatment options in patients predicted to have shorter survival.

**Disclosures** David D.L. Bowtell reports research support grants from AstraZeneca, Roche-Genentech and Beigene outside the submitted work; also personal consulting fees from Exor Therapeutics, that are outside the submitted work. Anna DeFazio reports support grants and personal consulting fees from AstraZeneca outside the submitted work. All other authors declare that they have no conflicts of interest.

### 12. Trophoblastic diseases

**#248 HOW LONG DO WE NEED TO MONITOR HCG AFTER EVACUATION OF A COMPLETE HYDATIDIFORM MOLE?**

1Leenoor Coopmans*, 2Brenna Swift, 3Chris Coyle, 4Xianne Aguiar, 4Naveed Sarwar, 4Kamaljit Singh, 4Matthew Winter, 4Michael Sekul. 1The Netherlands Cancer Institute, Amsterdam, The Netherlands; 2University of Toronto, Toronto, Canada; 3Imperial College London, London, UK; 4Sheffield Trophoblastic Disease Centre, Sheffield, UK

10.1136/ijgc-2023-ESGO.50

**Introduction/Background** In every woman with a hydatidiform mole pregnancy hCG-levels will be monitored after evacuation. If hCG-levels persist or relapse after normalization gestational trophoblastic neoplasia (GTN) is diagnosed and chemotherapeutic treatment is required.

**Purpose** Following evacuation of a complete hydatidiform mole (CHM), the relative risk of malignant change after hCG normalization is uncertain. Here we examine this question in a large national data-set.

**Methodology** All registered cases of CHM in the Charing Cross Hospital Trophoblastic Disease Centre database and the Sheffield Trophoblastic Disease Centre identified from Jan 1, 1980 to Nov 30, 2020. Patients receiving chemotherapy prior to hCG normalization for persistent GTN were excluded. Time to hCG normalization, relapse and treatment for GTN were collected. Pregnancies prior to surveillance completion were collected from Jan 1, 2010 – Nov 30, 2020.

**Abstract #248 Table 1** Time to relapse and remaining risk of GTN

<table>
<thead>
<tr>
<th>Time from normal HCG to relapse (months)</th>
<th>&lt;30 days to normal HCG</th>
<th>&gt;30 days to normal HCG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to normalization</td>
<td>Causes in remission</td>
<td>Causes in pGTN</td>
</tr>
<tr>
<td>0</td>
<td>4044</td>
<td>1/4044</td>
</tr>
<tr>
<td>1</td>
<td>4043</td>
<td>1/4043</td>
</tr>
<tr>
<td>2</td>
<td>4042</td>
<td>1/4042</td>
</tr>
<tr>
<td>3</td>
<td>4041</td>
<td>1/4041</td>
</tr>
<tr>
<td>4</td>
<td>4040</td>
<td>1/4040</td>
</tr>
<tr>
<td>5</td>
<td>4039</td>
<td>1/4039</td>
</tr>
<tr>
<td>6</td>
<td>4038</td>
<td>1/4038</td>
</tr>
<tr>
<td>7</td>
<td>4037</td>
<td>1/4037</td>
</tr>
<tr>
<td>8</td>
<td>4036</td>
<td>1/4036</td>
</tr>
<tr>
<td>9</td>
<td>4035</td>
<td>1/4035</td>
</tr>
<tr>
<td>10</td>
<td>4034</td>
<td>1/4034</td>
</tr>
</tbody>
</table>

**Results** There were 17 424 patients with normalization of hCG after evacuation of CHM. The risk of relapse was 0.06% (n=3/4804) in patients with hCG normalization within 56 days from evacuation. The time from normalization to relapse ranged from 3.9 to 40.4 months. The risk of relapse was significantly higher at 0.2% (n=26/12620, p=0.038) in women with hCG normalization after 56 days from evacuation with the time from normalization to relapse ranging from 0.1–90.0 months. The majority of relapses (82.8% n=24/29) occurred after the current 6 months surveillance protocol. The risk of relapse after surveillance hCG for 6 months is 1/600, this risk halved to 1/1260 with surveillance until 2 years and halved again to 1/2520 with surveillance to 3 years. All 29 women treated for relapse are currently alive with no disease.

**Conclusion** Relapse after normalization of hCG with CHM is rare. For patients with hCG normalization within 56 days of evacuation, surveillance protocols can safely change to 1 confirmatory normal hCG.

### 13. Vaginal and vulvar cancer

**#92 SENTINEL NODE BIOPSY IS FEASIBLE IN LARGE AND MULTIFOCAL VULVAR TUMOURS – RESULTS FROM A SWEDISH NATIONWIDE PILOT STUDY**

1,2Diana Zach*, 3Päivi Kannisto, 4Louise Moberg, 5Katja Stenström Bohlin, 5Preben Kjeldhede. 1Karolinska University Hospital, Stockholm, Sweden; 2Karolinska Institutet, Stockholm, Sweden; 3Skåne University Hospital, Lund, Sweden; 4Sahlgrenska Academy, Gothenburg, Sweden; 5Linköping University, Linköping, Sweden

10.1136/ijgc-2023-ESGO.51

**Introduction/Background** Sentinel node biopsy (SNB) in vulvar cancer reduces morbidity. However, the oncological safety in tumours ≥4cm and in multifocal tumours has not been systematically studied. Since 2017, vulvar cancer treatment in Sweden is centralised to four university hospitals. All cases of primary or recurrent vulvar cancer are discussed at weekly national multidisciplinary conferences.

The aim of this study was to investigate the feasibility and oncological safety of SNB in vulvar squamous cell carcinoma (VSCC) with tumours ≥4cm, or multifocal disease.

**Methodology** In this prospective nationwide pilot study, women with primary VSCC ≥4cm (group 1) or multifocal tumours (group 2) diagnosed between December 2019 and December 2022, without clinical or radiological signs of dissemination, underwent both SNB and inguinofemoral lymphadenectomy. Detection rates, negative predictive values, and the prevalence of metastases (isolated tumour cells (ITC), micrometastases, macrometastases) were determined for each of the two groups.

**Abstract #92 Figure 1** Distribution of lymph node metastases in the subgroups: A. Tumours ≥4cm, n=36 (58/69 groins with successful sentinel mapping) B. Multifocal tumours, n=17 (29/34 groins with successful sentinel mapping)
Results 36 women were included in group 1 and 17 women in group 2. The detection rates varied between 94–100% per patient and 84–85% per groin. There were no false negative sentinel nodes, giving a negative predictive value of 100% (95% CI 91.2–100 for group 1, 95% CI 83.9–100 for group 2). 47% of the women had lymph node metastases, 15% ICT or micrometastases only. The sentinel node metastases were the only metastatic nodes in 83% of all groins. Metastatic disease was found in 4 out of 16 (25%) non-mapping groins, in all but one with extranodal growth.

Conclusion In a centralised health care system with high proficiency, SNB seem to be feasible in tumours ≥4cm and multifocal disease. The procedure can be performed with high detection rates and promising oncological safety. Furthermore, SNB increases precision by detection of low-volume metastases. In non-mapping groins, an inguinal-femoral lymph node dissection is mandatory to prevent undiagnosed advanced disease.

Young Investigator Session

01. Cervical cancer

#770 PREOPERATIVE BRACHYTHERAPY OF EARLY-STAGE CERVICAL CANCER: RESULTS OF THE SFRO BRACHYTHERAPY GROUP MULTICENTER COHORT

Kanta Ka*, 1Abel Cordoba, 2Leonel Varela Cagetti, 3Renaud Schiappa, 4Manon Kissel, 5Sophie Espenel, 6Jean Michel Hannou-levi, 7Cyrus Changari, 8Gustave Roussy Cancer Center, Paris, France; 9Oscar Lambret Center, Lille, France; 10Paoli-Calmettes Institute, Marseille, France; 11Antoine Lacassagne Center, Nice, France; 12Curie Institute, Paris, France; 13Gustave Roussy Cancer Center, Villejuif, France; 14Department of radiotherapy of Pitie Salpetriere Hospital, Paris, France

Introduction/Background To report the real-life results of preoperative brachytherapy of early-stage cervical cancer (ESCC) with risk factors for relapse.

Methodology A retrospective analysis was made of the SFRO Brachytherapy Group cohort of patients with UCC for whom preoperative brachytherapy was proposed because of the presence of poor prognostic factors (tumor size > 2 cm, emboli, adenocarcinoma). Brachytherapy was followed 6 to 8 weeks later by surgery. Post-operative radio-chemotherapy was proposed in case of lymph node invasion. The primary objective is to analyze the local recurrence rate, the secondary objectives are the study of metastasis-free survival, disease-free survival, overall survival, and early and late toxicities. Univariate and multivariate analyses were performed for oncologic prognostic factors.

Results Between 2001 and 2019, 328 patients with ESCC treated with preoperative brachytherapy were identified. Tumor stages were as follows: 313 stages IB1 (95.4%), 6 stages IB2 (1.8%) and 9 stages IIA (2.8%). The median tumor size was 25 mm (20–40 mm) with the presence of emboli in 46 patients (14%) and 160 patients (48.8%) had an adenocarcinoma type tumor. A total of 239 patients (72.9%) showed a complete histological response after analysis of the hysterectomy specimen and 30 patients required further treatment with radiotherapy + chemotherapy. After a median follow-up of 72 months (4–168), 51 recurrences (15.5%) were noted, including 11 (3.3%) at the local level. The 5-year local recurrence-free survival, metastatic recurrence-free survival and overall survival were 94% [88–100], 89% [83–99] and 91% [85–100], respectively. Four patients (1.21%) experienced acute and 1 (0.30%) late grade ≥3 urinary toxicity. There were no grade ≥2 acute or late vaginal toxicities.

Conclusion To date, this is the largest French cohort of preoperative brachytherapy. This treatment regimen could be an interesting option for ESCC with risk factors for local recurrence.

02. Diagnostics

#999 METHYLATION MARKERS HAVE THE POTENTIAL TO ENHANCE THE ACCURACY OF CERVICAL SCREENING: AN EPIGENOME-WIDE ASSOCIATION STUDY OF 850,000 METHYLATION SITES

Sarah Bowder*, 1Barbara Bodinier, 2María Parasekevaidi, 2María Nasjoutzki, 3Anita Mitra, 1Menelas Tzaffetas, 1Ilkka Kalliala, 1James Flanagan, 3María Kyrgiou, 1Marc Chadeau-Hyam. 1Imperial College London, London, UK; 2University of Aristotle, London, UK

Introduction/Background Epigenetic alterations are essential in the development of many cancers and can occur years in advance of histopathological change. Interest in methylation testing for enhanced cervical screening is increasing but epigenome-wide exploration has been limited and the best methylation markers are yet unknown. In this epigenome-wide association study (EWAS) of >850,000 methylation sites, we are the first to explore DNA methylation signatures associated to CIN3 and cervical cancer, to better understand potential drivers of cervical carcinogenesis and estimate performance of methylation as a diagnostic test.

Methodology 247 women (119 normal, 74 CIN3/CGIN and 54 cervical cancer) attending gynaecological appointments or oncological treatment between 2014–2020 were recruited. Methylation signatures were obtained following bisulphite conversion of DNA extracted from exfoliated cervical cells and sequenced using the Illumina 850k array. After data QC, logistic regression and a conditional analysis were used to test for independent associations between methylation CpG sites and CIN3 or Cancer. P-values were Bonferroni corrected and adjusted for batch, chip, age and HPV status. Diagnostic test accuracy was estimated and tested in an independent cohort.

Results 409 CpG methylation sites were strongly associated with CIN3 or cancer (P <5x10−8). Two CpG sites located in PAX1 and NREP-AS1 genes were found to be independently associated with CIN3/Cancer. Combining sites into a bigenic marker led to an AUC of 0.92 in a separate subset of the discovery cohort and 0.77 in an independent cohort of CIN3 cases.

Conclusion This is potentially the first study to highlight epigenome-wide epigenetic signatures associated to CIN3 and cervical cancer. Functional annotation highlighted several genes related to tumour suppressor function and apoptosis are increasingly methylated in CIN3 and cervical cancer. PAX1 and NREP-AS1 as a methylation test has the potential to increase the accuracy of cervical screening through enhanced detection of women with CIN3 or cancer and future self-sampling.