Results Among 700 patients randomized, 508 (73% of expected) and 432 (86% of expected) completed respectively baseline QOL and SHA. Compliance post-baseline was 56% to 69% for QOL and 63% to 79% for SHA with 58% of patients reporting QoL and 63% responding to the SHA at 36 months. Mean baseline scores were high for all EORTC QLC-C30 functional scales. EORTC symptoms with the highest (worst) mean baseline scores were fatigue (24.5 on SH and 24.1 on RH) and sleep (29.9 on SH and 32.0 on RH). Mean baseline FSFI and FSDS-R total scores were respectively 27.1 and 10.9 on SH and 27.6 and 10.1 on RH; all were in the non-clinical range. Significant differences in favor of treatment with SH was found for the following domains: EORTC QLC-C30 pain scale; EORTC QLC-CX24 symptom experiences, body image, sexual-vaginal functioning, and sexual worry, sexual activities, and sexual enjoyment scales; FSFI desire, arousal, lubrication, pain scales and total score; and FSDS-R total score.

Conclusion Better quality of life and sexual health were observed with SH compared to RH.

Abstract #630

LOWER-LIMB LYMPHEDEMA AFTER SENTINEL LYMPH NODE BIOPSY IN CERVICAL CANCER PATIENTS: FINAL RESULTS OF THE SENTIX PROSPECTIVE INTERNATIONAL STUDY (CEEGOG-01/ENGOT-CX2)

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Introduction/Background Background The sentinel lymph node (SLN) concept was developed with the purpose of alleviating postoperative morbidity, particularly lower limb lymphedema (LLL). We report the final analysis of the occurrence of LLL after SLN biopsy or systematic pelvic lymph node dissection (PLND) in the prospective SENTIX study.

Methodology SENTIX was conducted at 47 sites in 18 countries. Patients with stages 1A1/LVSI+ to 1B2 (FIGO 2018), usual histological types, and no suspicious lymph nodes on imaging were prospectively enrolled between 05/2016 and 10/2020. All patients underwent SLN biopsy and hysterectomy/trachelectomy. Patients with unilaterally detected/undetected SLNs and those in whom the SLN was intraoperatively positive, underwent systematic PLND. LLL was assessed at 6-month intervals for the period of 2 years. The assessment was based on a persistent limb volume increase [LVI] calculated using serial limb circumference measurements.

Results Among 578 evaluable patients, 486 underwent SLN biopsy only and 92 underwent PLND. The cumulative incidence of LLL at 24 months in the SLN and PLND groups was 28.0% and 29.0% (p=0.900). Persistent LVI >40% occurred at a similar frequency in both groups, with cumulative rates of 1.8% and 1.1% in the SLN and PLND groups, respectively (p=1.0) (figure 1). Although we observed a tendency towards more frequent mild LLL in the SLN group, the difference was not statistically significant (p=0.256). The median interval to LLL onset was 9 months in both groups. Transient oedema that resolved without intervention within 6 months was reported in an additional 15.2% and 13.0% of patients in the SLN and PLND groups, respectively.

Abstract #630 Figure 1 Postoperative cumulative incidence of LLL in the SLN and PLND cohorts. LLL: limb lymphedema defined as a limb volume increase black (LVI); black (LVI >40%); dark grey: moderate LLL (LVI 20–39%); light grey: mild LLL (LVI 10–19%).
Conclusion Severe persistent LLL occurred rarely after surgical pelvic LN staging in cervical cancer patients. Contrary to our expectations, de-escalation from systematic PLND to SLN biopsy was not associated with a significantly decreased risk of mild-to-moderate LLL.

#71 INTEGRATED MULTI-OMIC AND CLINICOPATHOLOGICAL ANALYSIS OF HIGH-GRADE SEROUS OVARIAN CANCER IN BRCA1/2 MUTATED PATIENTS WITH POOR SURVIVAL: IDENTIFICATION OF PREDICTIVE BIOMARKERS FOR PERSONALIZED TREATMENT

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Introduction/Background Pathogenic germline BRCA1/2 alterations (gBRCA) are common in patients with high-grade serous ovarian carcinoma (HGSOC) and are generally associated with better chemotherapy response and longer 5-year-survival. However, fewer gBRCA1-carryers are alive at 10 years compared to non-carriers and gBRCA2-carriers. Clinicopathological and multi-omic features of HGSOC were compared in BRCA1/2-mutated patients with short and long-term survival to identify factors influencing clinical outcomes.

Methodology Whole-genome-sequencing, RNA-sequencing and clinicopathological analysis on primary HGSOC tumors from 35 advanced-stage BRCA1/2-mutant with short survival (≤3-years) was compared with data from 84 patients with >3-year survival (44 BRCA-mutant, 40 BRCA-wildtype), and 35 BRCA-wildtype patients with short survival. We also assessed clinicopathological features and tumor immune markers by multiplexed immunofluorescence in 293 and 146 gBRCA-carriers, respectively.

Results Prognostic features including residual disease, age, grade, FIGO stage, primary site, and BRCA type (BRCA1 vs BRCA2) could not explain short survival in BRCA-mutants relative to those with longer survival. Somatic mutation and neoantigen burden were equivalent between the two survival groups of BRCA-mutants, however the homologous recombination DNA repair deficiency (HRD) score was significantly higher in BRCA-mutants with long survival compared to those with short survival (73.6 vs 65.5, p=0.007). T-cell (PD1+.,CD4+) density was associated with good outcomes in BRCA-mutants (p=0.003). Mutational signature clustering identified a group of BRCA-mutants characterised by short survival, low HRD-scores, and DNA copy number signature CN9 which is associated with increased leucocyte fraction and poor disease-specific survival. PIK3CA alterations were enriched in BRCA2-mutants with short survival (5/10, 50%, p=0.061).

Conclusion Survival in BRCA-mutants with HGSOC was associated with distinct mutational signatures, differential immune responses, somatic gene alterations, and differences in the extent of HRD. Integration of multi-omic data with clinical variables can enhance the accuracy of predictive models and