before treatment. Paired sample analysis before and after treatment showed that imiquimod acts on the PD-1/PD-L1 pathway, decreasing PD-1 expression (P = 0.0155) in cases of successful treatment (figure 1), possibly controlling the inflammation. We observed that PD-1 levels were not correlated with PD-L1 levels (p = 0.5177).

Conclusion Our results suggested that imiquimod modulates PD-1 expression in cervical lesions and that treatment success depends on PD-1 levels at admission. In contrast, increased PD-L1 expression is associated with a higher risk of unsuccessful treatment.

Disclosures The authors report no conflict of interests.

Introduction/Background High-grade serous ovarian cancer (HGSOC) is typified by extensive genomic instability and intra-tumoural heterogeneity (ITH). Most patients relapse and eventually acquire resistance to platinum- or PARP inhibitor-based therapy. Diverse mechanisms leading to therapy resistance and lack of predictive biomarkers means that matching the best treatment options to patients is difficult. This study aims to examine the effect of spatial and temporal ITH in advanced stage HGSOC on homologous recombination (HR) deficiency scores at presentation and relapse and implications for patient management.

Methodology Patients (n = 45) at Hammersmith Hospital (HH) undergoing maximal-effort upfront cytoreduction for advanced HGSOC underwent mapping of their tumour dissemination and tumour biopsies collected (range 4–15). Paired relapse samples were collected for 10 patients. Tumour DNA was extracted (n = 5 tumours per patient, plus relapse tumours) and Illumina Human OmniExpress genotyping performed. Allele-specific copy number (CN) was quantified using ASCAT. Multi-site CN data was also accessed from two cohorts (GSE38787, GSE40546). HR scores were estimated in each cohort using a genomic scar ‘scarHRD’ algorithm, applying a cut-off ≥ 42 for HR-deficient (HRD).

Results Variations in HR scores were observed across the cohorts with a proportion of patients presenting with a mixed HR score, displaying both HRD and HR-Proficient (HRP; < 42) scores in their tumours: HH cohort (22%, 10/45 patients); GSE38787 (17%, 4/24 patients); and GSE40546 (28%, 4/14 patients). In the HH cohort, we examined if mixed HR status was associated with survival and demonstrated that patients with mixed HR status or all HRP tumours had poorer progression-free (p = 0.0052) and overall survival (p = 0.00092) than patients with all HRD tumours.

Conclusion Variations in HR-deficiency/proficiency scores indicate HR status may be inconsistent in advanced disseminated HGSOC, thus suggesting that a single tumour biopsy may not accurately depict spatial HGSOC tumour biology.

Disclosures None to declare.