IMPLEMENTING HRD TESTING IN ROUTINE CLINICAL PRACTICE AMONG PATIENTS WITH PRIMARY HIGH-GRADE ADVANCED OVARIAN CANCER

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Introduction/Background Chemotherapy backbone for patients with high-grade advanced epithelial ovarian cancer (HG-AOC) is carboplatin and paclitaxel, followed by a maintenance therapy either with bevacizumab, a PARP inhibitor, or a combination of both which is defined by homologous recombination deficiency (HRD) and BRCA status.

Methodology Inclusion of patients with primary diagnosis of HG-AOC treated in a tertiary gyneco-oncologic center between 12/2019–12/2021. Offering germline testing is recommended by national guidelines and was conducted by using the True-Risk-Panel®. HRD status was measured using the Myriad myChoice® Test in patients with the indication for HRD testing.

Results HRD-testing was requested in 190 patients, and in 163 patients (85.8%) a HRD test result was available. HRD test result could not be reported in 27 patients due to an insufficient tumor yield. Median time to receive the HRD test results was 37 days (range: 9–79). In total HRD was present in 44.7% (73/163) based on GIS ≥ 42 in 42.9% and a tumor BRCA mutation in 3 cases (all with GIS<42). Germline testing results were available in 148 patients, and in 18 patients (12.2%) pathological germline mutations were detected. Of the 27 patients without sufficient HRD testing, BRCA germline testing results were available in 19 patients (70.4%), and pathological germline mutations were detected in 2 patients (7.4%).

Conclusion Implementation of HRD testing is feasible and results are available for treatment decisions in a timely manner for most patients. Prerequisite for HRD testing is enough tumor tissue, which should be taken at primary diagnosis of the disease as it is rather unlikely, that enough tumor tissue will be available later after chemotherapy initiation. Co-testing of HRD and BRCA-germline testing should be aimed for to enable optimal, and timely treatment decision on maintenance therapy also for patients in whom the HRD test will not be evaluable.
cancer feasibility pilot was commenced in England with the aim to extend to all four UK nations.

Methodology All patients diagnosed with epithelial ovarian, fallopian tube and primary peritoneal cancer in NI were included between 2014 and 2017. Patients with non-invasive epithelial (borderline) tumours were excluded. Data was collected using electronic data sources. Observed 5-year survival and time to disease recurrence was estimated by Kaplan Meier method.

Results 603 patients in total with two thirds of women present with advanced (stage 3/4) disease. High grade serous carcinoma (HGSC) was the most common subtype (69%). 11% were palliative and two thirds developed recurrence. Low grade serous, mucinous and endometrioid 5 year survival was 81%, 80% and 70% respectively compared to 49% for clear cell and 21% for HGSC. Specifically for HGSC 42% had cytoreduction with chemotherapy (48% complete, 35% optimum), 16% were deemed unfit for active treatment. Median time to progression was 29 months for primary surgery and 16 months for interval surgery. Median overall survival was 24 months (primary cytoreduction 58 months and interval cytoreduction 37 months).

Conclusion The outcomes for patients vary significantly based on the histological subtype at diagnosis. HGSC remains the most common subtype with a 5 year survival of 21%.

Introduction/Background Extraperitoneal endometriosis located in the abdominal wall is usually associated to a history of gynecological surgeries, with a reported incidence of malignant conversion of 0.7–1%. The most common histological types of endometriosis associated malignant transformation are endometrioid adenocarcinoma and clear cell adenocarcinoma. To our knowledge, only 30 cases of abdominal wall endometriosis with malignant transformation to clear cell adenocarcinoma have been reported. There are no published reports on borderline tumors originated from extraperitoneal endometriosis. The objective is to report a patient with abdominal wall endometriosis with malignant transformation to a borderline clear cells tumor.

Methodology 49 year old female with a history of a painful abdominal mass, with an abdominal-pelvic computed tomography that reported a multilobulated 6 cm mass with internal septums and mural nodules. A percutaneous biopsy of the mass reported endometriosis. She underwent laparotomy revealing a 7x5 cm solid mass which infiltrated the rectus abdominis shear and muscle extending to the peritoneum and the anterior wall of the bladder. The final pathology reported endometriosis with extensive atypical tubular proliferation. Immunohistochemistry stainings were consistent with a borderline clear cell tumor originating from endometriosis.

Results A laparoscopic hysterectomy, bilateral salpingo-oophorectomy and omentectomy was performed to rule out a primary ovarian neoplasia. Final pathology report was negative for malignancy. The patient has been under surveillance for 7 months without clinical findings indicative of recurrence.

Conclusion Extraperitoneal endometriosis located in the abdominal wall has an incidence of 0.3–3.5% and it rarely undergoes malignant transformation. Borderline tumors are noninvasive epithelial tumors with significant cellular atypia, high mitotic rate and high proliferation index but no stromal invasion. 20 to 40% of these tumors are associated to extraovarian implants. The non-invasive nature of these implants is an important histological landmark that defines the tumor’s behaviour and the lack of adjuvant treatment.