Objectives The need for a sensitive and specific biomarker to detect early disease is essential to revolutionize ovarian cancer treatment. In this study we compared between the levels of CA125 in the serum and in the vaginal secretions of women with and without ovarian cancer. We also compared between the levels of CA125, IL-2, IL-13, and HE4 in the vaginal fluid in 3 groups: healthy women, patients after chemotherapy before surgery (neoadjuvant) and patients before treatment or surgery

Methods In this study we analyzed sixty-five women in our Gynecological Oncology Unit. CA-125 levels in the serum were measured using Human CA125/MUC16 ELISA and Luminex. IL-2, IL-13 and HE4 were analyzed using Luminex.

Results CA-125 levels were significantly higher in vaginal secretions than in the serum of all groups. There was no statistical difference between the neoadjuvant subgroup compared to the healthy group. We therefore, investigated three additional biomarkers; IL-2, IL-13 and HE4, using only vaginal secretions. Of these, IL-2 and IL-13 showed promising results with statistical significance in differentiating between healthy and ovarian cancer patients. HE4 showed decreased levels in patients that received neoadjuvant treatment that were not significant when compared to the healthy group.

Conclusions This study demonstrates the promise of using vaginal secretions for detection of ovarian cancer. Further research is required.

Abstracts

EP262/#507 ADOPTION OF NEW FIRST-LINE MAINTENANCE STRATEGIES AMONG PATIENTS WITH PRIMARY ADVANCED OVARIAN CANCER AFTER FOOD AND DRUG ADMINISTRATION APPROVAL

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Objectives The US FDA approved 2 first-line maintenance treatments for primary advanced ovarian cancer (AOC) in 2020: niraparib, regardless of tumor biomarker status, on April 29, and olaparib+bevacizumab combination for homologous recombination-deficient tumors on May 8. We looked at adoption of these strategies 1 year after approval.

Methods This retrospective study included patients diagnosed with AOC who completed first-line chemotherapy between April 29, 2019, and May 7, 2021, from the Flatiron Health database. Patient demographics, clinico-pathological characteristics, and maintenance treatment patterns were summarized descriptively.

Results We identified 470 patients with primary AOC, 51.1% before April 29, 2020, and 48.9% after May 8, 2020. Within 1 year after May 8, first-line maintenance therapy increased from 53.3% to 60.0%. PARP inhibitor (PARPi) monotherapy increased from 22.9% to 28.3%; olaparib+bevacizumab increased from 2.9% to 7.4%. During the same period, olaparib monotherapy decreased from 15.0% to 9.6%, while niraparib monotherapy increased from 6.7% to 17.8%. In BRCAm, PARPi use (monotherapies and combination) increased from 75.0% to 81.8%; olaparib+bevacizumab increased from 3.1% to 22.7%. Olaparib monotherapy decreased from 53.1% to 50.0%. In BRCAwt, PARPi use (monotherapies and combination) increased from 26.3% to 39.8%; olaparib+bevacizumab increased from 3.0% to 6.6%. PARPi monotherapy increased from 18.6% to 29.5%; specifically, niraparib increased from 8.4% to 21.7%.

Conclusions With approvals in 2020, PARPi maintenance use, both monotherapy and combination, has increased. Although PARPi use is increasing, nearly 13.6% of BRCAm patients did not receive maintenance therapy despite multiple trials showing significant benefits in primary AOC.

EP263/#849 OLAPARIB TREATMENT IN PATIENTS WITH PLATINUM-SENSITIVE RELAPSED OVARIAN CANCER BY BRCA MUTATION AND HOMOLOGOUS RECOMBINATION DEFICIENCY STATUS: CHARACTERIZATION OF LONG-TERM/ SHORT-TERM TREATMENT DURATION IN LIGHT

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Objectives The LIGHT study (NCT02983799) demonstrated the activity of olaparib treatment in patients with platinum-sensitive relapsed ovarian cancer (PSROC) and known BRCA mutation (BRCAm) and homologous recombination deficiency (HRD) status (Mathews C et al. ASCO 2021). We analyzed characteristics of patients with long-term and short-term olaparib treatment duration in LIGHT.

Methods Patients with PSROC and ≥1 prior line of platinum-based chemotherapy (PBC) received olaparib monotherapy (300 mg bid; tablets) until investigator-assessed disease progression. Patients were assigned to four cohorts: germline BRCAm, somatic BRCAm, HRD-positive (non-BRCAm), and HRD-negative, and were grouped by treatment duration at the final data cutoff (August 27, 2020): >18 months for long-term and <3 months for short-term. Clinical and molecular characteristics were analyzed.

Results Of the 258 evaluable patients with confirmed BRCAm and HRD status, 45 (17%) had long-term treatment duration (31 BRCAm [germline or somatic], 11 HRD-positive [non-BRCAm] and three HRD-negative) and 48 (19%) had short-term treatment duration (eight BRCAm [germline or somatic], 15 HRD-positive [non-BRCAm] and 25 HRD-negative). Reasons for olaparib discontinuation and dose modification are shown in table 1. Overall, compared with short-term...