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Chemotherapy directly followed by poly(ADP-ribose) polymerase inhibition as an alternative to surgery in patients with *BRCA*-mutated ovarian cancer: a potential management strategy in the era of coronavirus disease 2019



TO THE EDITORS: The current coronavirus disease 2019 (COVID-19) pandemic has created challenges for the treatment of patients with cancer. Patients with epithelial ovarian cancer (EOC) represent a group of patients with high utilization of healthcare. These patients are at a high risk of contracting COVID-19 because of the following factors: older age (≥ 65 years), medical comorbidities, and Eastern Cooperative Oncology Group status ≥ 2 .^{1,2} Although the traditional treatment for these patients includes both surgery and chemotherapy, surgery for patients with EOC is currently categorized as semiurgent by the Society of Gynecologic Oncology (SGO) with an acceptable delay of 1–4 weeks.³ Furthermore, the SGO has stated that use of neoadjuvant chemotherapy may be effective in delaying surgery and hospitalization during the COVID-19 pandemic.²

Patients with *BRCA* mutations represent a unique group of patients with EOC because of their exquisite platinum sensitivity and impressive progression-free survival with poly(ADP-ribose) polymerase (PARP) inhibitor maintenance. Here, we report on 2 patients with germline *BRCA*-mutated EOC for whom a complete clinical response (cCR) was detected by cancer antigen 125 (CA-125) testing and imaging

to platinum-based chemotherapy and who were then transitioned directly to olaparib in lieu of interval debulking surgery (IDS). Although these patients were treated before the COVID-19 pandemic, this strategy is even more relevant given the additional complexity of caring for patients with EOC in the context of COVID-19.

Brief clinical and oncologic data of the patients are presented in the Table. In both cases, the patients underwent 3 cycles of chemotherapy followed by repeat imaging with plans for possible IDS. However, both patients had continued unresectable disease despite improved CA-125 expression and therefore underwent additional chemotherapy. Patient B had no evidence of disease on positron emission tomography following a total of 6 cycles of chemotherapy, whereas patient A had continued small residual (< 1 cm) peritoneal disease on computed tomography of the abdomen and pelvis and completed 3 more cycles of chemotherapy for a total of 9 cycles. Ultimately, both patients had complete resolution of disease on imaging with normalization of CA-125 expression.

There is limited experience in which surgery, either in the primary or interval setting, is omitted for patients with EOC. However, our experiences suggest that patients with *BRCA*

TABLE
Brief medical and oncologic information of patients

Patient ID	Medical comorbidities	Areas of unresectable disease	Initial CA-125 expression	No. of cycles of chemotherapy	Imaging modality used	Response to imaging at conclusion of chemotherapy	No. of cycles of olaparib	Current disease status ^a
Patient A	Stroke	Upper abdomen, small bowel mesentery	5655	9	CT with contrast	cCR	14	NED
Patient B	—	Extensive lymphadenopathy including supraclavicular and mediastinal involvement	362	6	PET	cCR	10	NED

CA-125, cancer antigen 125; cCR, complete clinical response; CT, computed tomography; NED, no evidence of disease; PET, positron emission tomography.

^a Based on examination, imaging, and CA-125 testing.

Vetter. Chemotherapy followed by PARP inhibition as an alternative to surgery in patients with *BRCA*-mutated ovarian cancer during COVID-19. *Am J Obstet Gynecol* 2020.

mutations and cCR to primary chemotherapy may be candidates who do not require surgery. Although IDS has been shown to be less morbid than primary cytoreductions, there are still inherent surgical risks.⁴ Because examination, imaging, and CA-125 testing confirmed a cCR in our patients, these risks were believed to outweigh the benefits.

In addition, the availability of PARP inhibition offers patients with *BRCA* mutations a unique opportunity to benefit from maintenance therapy. Both of these patients underwent genetic testing during their primary chemotherapy as is standard at our institution. This allowed for early identification of the *BRCA* mutations and their candidacy for maintenance olaparib based on the Food and Drug Administration's approval of olaparib for frontline maintenance in patients with *BRCA1/2* mutations. This is based on the results of SOLO-1, which demonstrated a hazard ratio for disease progression or death of 0.30 (95% confidence interval, 0.23–0.41), favoring olaparib in patients with advanced-stage, high-grade EOC with response to primary platinum-based chemotherapy.⁵

Ultimately, this study presents an alternative management strategy for patients with EOC and *BRCA* mutations who have cCRs to platinum-based chemotherapy, especially with the excellent outcomes observed in SOLO-1. This strategy may now be even more relevant in the context of the current COVID-19 pandemic because it allowed both patients to avoid inpatient surgery and hospitalization, which in turn would have allowed for reduction in exposure to patients with COVID-19 and conservation of personal protective equipment. In addition, these patients would not have entered the growing queue of patients whose surgeries may have been further delayed because of some hospitals restricting surgeries during the COVID-19 pandemic. ■

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This communication has been published in the middle of the COVID-19 pandemic and is available via expedited publication to assist patients and healthcare providers.

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Screening all pregnant women admitted to labor and delivery for the virus responsible for coronavirus disease 2019



TO THE EDITORS: We read with great interest the study of Vintzileos et al and their call for universal obstetrical coronavirus disease 2019 (COVID-19) screening to conserve limited personal protective equipment (PPE) and to allow appropriate triage, adequate obstetrical and neonatal management, and safe patient transport in overcrowded hospitals.¹ However, we disagree with their call for universal COVID-19 testing of asymptomatic pregnant women, rather we suggest continued adherence to the public health

guidelines for COVID-19 diagnostic testing.^{2,3} The COVID-19 test is extremely specific because it identifies the viral RNA to which the individual has been exposed during the preceding 21 days. The viral load peaks between 7 to 10 days after onset of symptoms and declines throughout the next 3 weeks. Detection is performed by the highly specific (96% specificity) polymerase chain reaction.⁴ The false-negative test rates for this test range from 30% to 3% in asymptomatic and symptomatic populations, respectively.⁵ A positive COVID-19