patient were evaluable, including complete response (CR) in one patients, partial response (PR) nine, stable disease six, and progressive disease (PD) zero. The ORR was 62.5% (95% CI, 38.6 to 81.5), the DCR was 100% (95% CI,80.6 to 100). The median PFS and OS was not reached. The frequent TRAEs were rash (18.3%), gum-pain (11.7%), and decreased white blood cell count (9.9%). four patients experienced grade ≥3 AEs. The commonly reported grade ≥3 AEs were hematologic.

Conclusions Our data showed that anlotinib plus paclitaxel and cisplatin has promising antitumor activity and manageable toxicity profile in patients with recurrent, platinum-resistant ovarian carcinoma.

Objective Treatment options for platinum resistant or refractory recurrent ovarian cancer (PRR OC) are few and therapeutic efficacy are limited especially for those after 1 prior line of platinum-based chemotherapy. So, we designed a Phase II trial to evaluate the efficacy and safety of niraparib combined with oral etoposide in PRR OC.

Methods Key eligibility criteria include patients with histologically confirmed non-mucinous epithelial ovarian, fallopian tube, or primary peritoneal carcinoma; 1–2 prior lines of platinum-based chemotherapy; platinum resistant or refractory recurrence. Patients will receive niraparib 200 mg and 100 mg on alternate days and oral etoposide 50 mg on day 1–20 of each 30-day treatment cycle. After 6–8 cycles, oral etoposide will be discontinued. Niraparib was given alone until disease progression, intolerable toxicity or withdrawal of informed consent. The primary endpoint is PFS by Response Evaluation Criteria in Solid Tumors (RECIST v1.1).

Results Recruitment began on 22 May 2020. 26 patients were enrolled to date. The mean number of prior lines of chemotherapy was 1.3 which mean almost all of had primary platinum-refractory diseases. Median treatment duration was 4.3 months (1.1–16.1). Notably, one primary platinum resistant patient achieved CR lasting from week 16 to week 64 and is still on treatment. Another patient had clear cell carcinoma and has maintained PR through week 48 assessment; she is also still on treatment.

Conclusions Niraparib combined with oral etoposide show promising antitumor activity in PRR OC patients who received 1–2 prior lines of platinum-based chemotherapies. Study recruitment is ongoing.