Biomarkers for the early detection of clear cell OC and targets for immunotherapy both have the potential to improve outcomes for patients. Our review aims to evaluate the existing literature to determine whether any antigens could fulfill this remit.

Methods A literature search was carried out to identify biomarkers using the following free text and MeSH terms: ‘clear cell’ OR ‘clear-cell’ AND (ovar*) AND (cancer* OR malignan* OR tumour* OR tumor* OR neoplasm* OR carcinoma*) AND (biomarker* OR protein* OR antigen* OR target*) AND (immuno* OR treat* OR diagnosis OR detect*). Inclusion criteria was primary research articles on human adult females including at least 10 clear cell carcinoma patients. Exclusion criteria included reviews; case series and reports paediatrics; animal; cell line; clear cell recurrence; metastasis from another primary cancer and prognostic biomarker studies.

Results 6,750 articles were identified from searching multiple databases from 1904–2021. Duplicates were removed (n=2076) and all texts were screened against the inclusion and exclusion criteria which identified 24 gene transcripts/proteins and 2 antibodies within 32 articles identifying single or multiple targets.

Conclusions Current findings suggest there are possible candidates to act as biomarkers and targets for immunotherapy. The biomarkers show a sensitivity and specificity up to 100% in single and multiple targets when differentiating clear cell from other subtypes of epithelial OC. With further analysis this will show the potential of these biomarkers to act as targets for immunotherapy.

EVALUATION OF THE SENSITIVITY TO DIFFERENT CHEMOTHERAPY REGIMENS IN PLATINUM—PARTIAL SENSITIVE RECURRENT OVARIAN CANCER

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Objectives Ovarian cancer is one of the highest incidence and mortality gynecological tumors. Most of them will relapse within 24 months. The purpose of this study was to compare the efficacy and safety of doxorubicin liposome or paclitaxel combined with platinum chemotherapy in the treatment of some platinum-sensitive, recurrent ovarian cancer patients.

Methods Ovarian cancer patients who is recurrence in 6–12 months from the last chemotherapy were selected and randomly assigned in a 1:1 ratio to receive paclitaxel or doxorubicin liposome and platinum-based combinations. The primary endpoint is progression-free survival (PFS).

Results A total of 216 ovarian cancer patients were enrolled, 106 of whom received paclitaxel platinum therapy, 110 patients received doxorubicin platinum therapy. Patients in the platinum-based paclitaxel treatment group had a longer PFS (18.0 vs. 14.0 months, hazard ratio, 0.71, 95% confidence interval [CI], 0.44 to 1.45, P>0.05) compared with those in the doxorubicin-platinum group. The disease control rates of the two groups were 88.6% in the paclitaxel group and 86.36% in the doxorubicin group. In the study, the most adverse reactions of grade 3 or 4 in the doxorubicin platinum treatment group were leukopenia (6.4%) and thrombocytopenia (10.9%). The paclitaxel platinum treatment group were leukopenia (8.5%) and thrombocytopenia (3.8%).

Conclusions In the treatment of some platinum-sensitive, recurrent ovarian cancer patients, paclitaxel platinum-based therapy and doxorubicin-platinum therapy have no significant difference in efficacy, and there is no significant difference in adverse reactions. Therefore, in the treatment of platinum-sensitive, recurrent ovarian cancer patients, both options can be used as options. (ClinicalTrials.gov number, NCT04337632)