Conclusion We report that using ANGLE-Parsortix CTC enrichment, single CTCs and CTC clusters can be isolated from blood in ovarian cancer. CTCs isolated from the ovarian vein during surgery are abundant for the precursor metastasizing cells that are CTC-clusters, and may show utility for monitoring treatment response and prognosis in the adjacent setting.

Disclosures No authors have any potential conflict of interest to report.

#852 UNVEILING THE POTENTIAL: NOVEL CHALCONES AS PROMISING CHEMOTHERAPEUTIC AGENTS FOR OVARIAN CANCER
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Introduction/Background Epithelial ovarian cancer is a prevalent cancer type in women causing significant mortality rates worldwide, and remains incurable especially in advanced stages due to chemoresistance and drug-associated side effects. To address this issue, identifying novel chemotherapeutic agents with fewer side effects and enhanced anti-cancer activity is crucial. In this study, we examined a collection of chalcone analogues, which are precursors of flavonoids, to evaluate their potential as anti-cancer agents against ovarian cancer cells. Our aim is to identify novel agents that could overcome chemoresistance and improve the efficacy of ovarian cancer treatment.

Methodology In order to investigate the potential cytotoxic activity of 17 novel chalcone derivatives, we performed SRB assay on four different cell lines, including both ovarian cancer and non-tumorigenic cells. Through the application of the SRB assay, chalcone derivatives exhibiting promising efficacy against ovarian cancer cells were selected for further analysis. To further characterize the underlying cell death mechanisms, we employed various experimental approaches, including PI staining, Annexin-V staining, and western blot analysis.

Results Our study revealed that out of the 17 chalcone derivatives, 3 chalcone derivatives exhibited potent activity against ovarian cancer cells, with low IC50 values. After further investigation of the mode of action of these compounds, these derivatives were also found to induce apoptotic cell death, cause DNA damage through phosphorylation of H2AX, and affect the cell cycle in ovarian cancer cells causing sub-G1 increase.

Conclusion In conclusion, our findings suggest that the new chalcones have potential as chemotherapeutic agents in the treatment of ovarian cancer. Further research is needed to thoroughly investigate their efficacy and safety profiles, and to identify the specific mechanisms by which they induce apoptotic cell death, and cell cycle effects on ovarian cancer cells. These promising results warrant further investigation and development of these chalcones as potential therapeutic agents for ovarian cancer.

Disclosures Author(s) declare no conflict of interest.

#923 PD-1/PD-L1 PATHWAY EXPRESSION IN IMIQUIMOD TREATMENT OF HIGH-GRADER CERVICAL LESIONS
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Introduction/Background Programmed cell death protein (PD-1) after contact with its ligands (PD-L1 and PD-L2) exerts an inhibitory role on immune cells, playing an important role in maintaining self-response. Knowing that increased expression of the PD-1/PD-L1 pathway can interfere with cervical immunity for the progression of cervical lesions, we decided to investigate whether the use of 5% imiquimod can modulate the expression of the PD-1/PD-L1 pathway in uterine cervix injuries.

Methodology We studied 52 women aged 18 to 40 years with histological diagnosis of high-grade HSIL intraepithelial lesion (CIN2p+16+ and CIN3), who self-applied 250mg cream containing 5% imiquimod three times a week for 16 weeks. Biopsies were collected on admission and after completion of treatment, and the successful treatment was defined by lesion regression after treatment. The expression of PD-1 and PD-L1 was evaluated by immunohistochemistry, whose values (in pixels) were used to assess protein levels.

Results The success of topical imiquimod treatment in high-grade cervical lesions was associated with lesions that had the highest levels of PD-1 (P= 0.0319) and PD-L1 (P= 0.0199)