EP325/#44

FIBROBLAST GROWTH FACTOR 11 (FGF11) PROMOTES PROGRESSION AND CISPLATIN CHEMORESISTANCE THROUGH THE HIF-1A/FGF11 SIGNALING AXIS IN OVARIAN CLEAR CELL CARCINOMA

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Introduction Ovarian clear cell carcinoma (OCCC) is relatively resistant to platinum-based chemotherapy, which is associated with a poor prognosis. Evidence is mounting that fibroblast growth factors (FGFs) play key roles in human malignancies. However, the impact of FGF11 on OCCC is not completely understood.

Methods Twenty-four patients who were diagnosed with OCCC in FIGO stage II-IV were included. According to their response to first-line platinum-based chemotherapy, patients were classified into two groups: the chemoresistant (CR) group and the chemosensitive (CS) group. Nanostring nCounter PanCancer Pathway panel was performed to explore expression profiles in OCCC showing different chemosensitivity. shRNA targeting FGF11 was utilized to knock down the expression of FGF11 in OCCC cell lines. Colony formation assay, CCK-8 assay, wound healing, transwell invasion assay and flow cytometric analysis were subsequently performed to detect the effect of FGF11 on OCCC cell progression and cisplatin (DDP) chemoresistance. Western blot assays and rescue experiments were employed to examine the mechanism of FGF11 in OCCC.

Results Expression and bioinformatic analysis verified that FGF11 was significantly upregulated in chemoresistant OCCC tissues and higher expression of FGF11 was related to poorer survival. Downregulation of FGF11 inhibited cancer progression and DDP chemoresistance of OCCC cells. Mechanistically, FGF11 was regulated by the HIF-1α/FGF11 signaling axis. Inhibition of cancer cell progression and DDP chemoresistance caused by HIF-1α knockdown can be rescued by the overexpression of FGF11.

Conclusion/Implications FGF11 promoted cancer progression and DDP chemoresistance via the HIF-1α/FGF11 signaling axis in OCCC, suggesting the potential of HIF-1α/FGF11 signaling axis as a therapeutic target for OCCC.

EP326/#380

EFFICACY AND SAFETY OF NANOPARTICLE ALBUMIN-BOUND PACLITAXEL PLUS CARBOPLATIN AS NEOADJUVANT CHEMOTHERAPY FOR WOMEN WITH UNRESECTABLE OVARIAN CANCER: A SINGLE-CENTER, OPEN PHASE IB/II CLINICAL TRIAL

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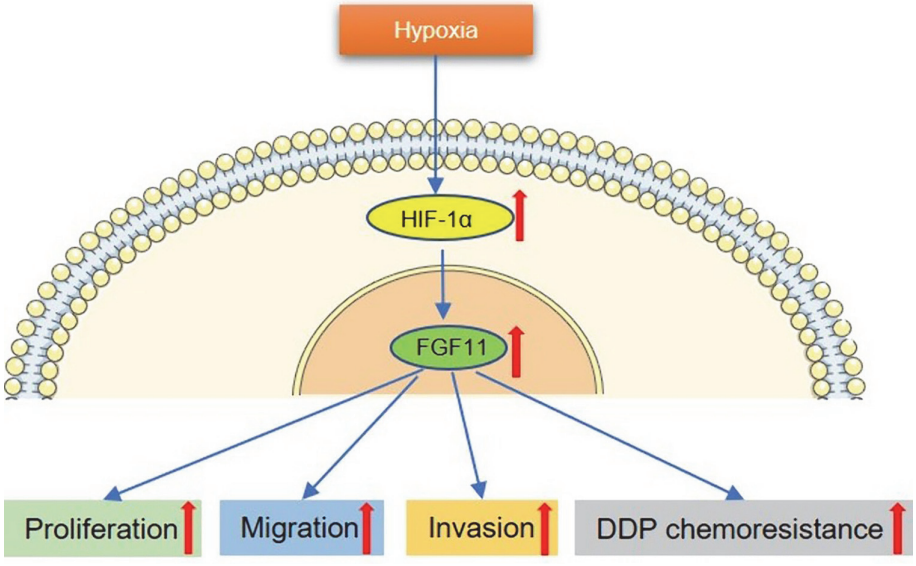
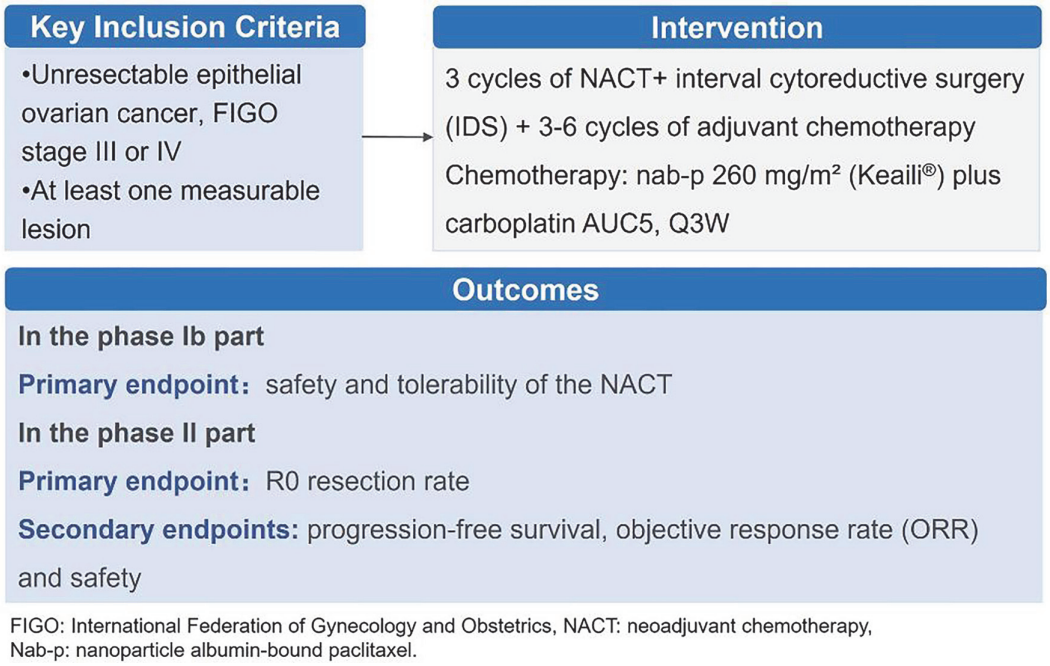
Introduction This study aimed to explore the efficacy and safety of nanoparticle albumin-bound paclitaxel (nab-p) combined with carboplatin as a neoadjuvant chemotherapy (NACT) regimen for patients with ovarian cancer (OC).

Methods This is a single-center, open phase Ib/II Clinical Trial (ChiCTR1900026893). We enrolled women with unresectable epithelial OC, FIGO stage III or IV. Patients received 3 cycles of NACT, then interval debulking surgery (IDS), followed by 3–6 cycles of adjuvant chemotherapy. Each 3-week cycle consisted of carboplatin AUC5 plus nab-p 260 mg/m^2(Keaili®). In the phase II part, the primary objective was R0 resection rate (figure 1).

Results Phase Ib results showed the NACT was safe and tolerable, so the study proceeded to phase II. A total of 50 patients were included in this analysis, 10 patients in the phase Ib and 40 patients in the phase II. Twenty-nine (58%) patients had stage IV. All patients completed planned NACT and 8 (16%) patients experienced delayed chemotherapy due to adverse events (AE). After NACT, the objective response rate was 81.3% (95%CI: 67.4%-91.1%) in 48 patients who had at least one tumor assessment. Among the 45 patients who underwent IDS, 5 patients (11.1%) had surgery delayed due to AE, all patients achieved optimal debulking and 77.8%



Abstract EP325/#44 Figure 1



Abstract EP326/#380 Figure 1 Study design

(95%CI: 62.9%-88.8%) achieved R0 resection. During NACT, the most common grade 3/4 AEs were hematologic toxicities, including neutropenia (78%), leucopenia (48%) and thrombocytopenia (24%). All AEs returned to normal or acceptable levels after receiving appropriate treatment.

Conclusion/Implications Nab-p plus carboplatin as a NACT regimen was effective and tolerable for unresectable epithelial OC.

EP327/#774 PREDICTIVE MODELS FOR DIFFERENTIATION OF EPITHELIAL OVARIAN CANCER FROM BENIGN OVARIAN MASS

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Introduction Although there have been advancements in triaging women with pelvic masses using multimodal laboratory assays like ROMA and CPH-I, there is still a need for more cost-effective and efficient models. Additionally, there is a need for a reliable model that can detect EOC in premenopausal women at an early stage.

Methods The study analyzed data from 122 EOC patients and 820 patients with BOMs. Pearson's correlation coefficient, the Mann-Whitney U test, the area under the curve (AUC) were used for analysis.

Results 39.3% of the 122 EOC patients had stage I-II cancer, and 60.7% had stage III-IV cancer. Multivariate logistic regression analysis revealed that human epididymal secretory protein 4 (HE4) and red cell distribution width (RDW) were significant predictors of EOC and constituted the full model (FM). The AUCs of FM for predicting EOC were comparable to those of ROMA or CPH-I, regardless of tumor stage or menopausal status. However, the sensitivity of FM at a set specificity of 75% was significantly higher than that of ROMA in predicting EOC in premenopausal women.

Conclusion/Implications The AUCs of FM were comparable to those of ROMA or CPH-I in terms of predicting EOC, regardless of the tumor stage or menopausal status; however, the FM was more sensitive than ROMA in predicting EOC in premenopausal women at a set specificity of 75%. Additionally, FM has the advantage of being less expensive than ROMA or CPH-I. Further prospective studies are required to validate these results of present study.

EP330/#1472 ARTIFICIAL INTELLIGENCE-BASED MODEL ENABLES ACCURATE DIAGNOSIS OF OVARIAN CANCER USING LABORATORY TESTS: A MULTICENTER, RETROSPECTIVE STUDY

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Introduction Early diagnosis of ovarian cancer (OC) is difficult due to the lack of effective biomarkers. Laboratory tests are necessarily applied in clinical routine practice and some tests have shown diagnostic and prognostic relevance to OC.

Methods In this multicenter, retrospective study, we collected 98 laboratory tests and the age of women with or without OC admitted to three hospitals during 2012 and 2021. A risk prediction fusion framework (MCF model) that combined