Combination chemotherapy with a platinum-based regimen is the foundation of current first-line treatment for epithelial ovarian cancer (EOC). However, a majority of patients relapse and ultimately develop platinum-resistant disease. Elevated folate receptor alpha (FRα) expression is observed in approximately 80% of recurrent ovarian cancers, thus providing an attractive candidate for targeted therapeutic strategies in this indication.

Mirvetuximab soravtansine (IMGN853) is an antibody-drug conjugate (ADC) comprised of a FRα-binding antibody, cleavable linker, and the maytansinoid DM4, a potent tubulin-targeting agent.

Mirvetuximab soravtansine has shown promising single-agent clinical activity in patients with platinum-resistant EOC, primary peritoneal carcinoma, and fallopian tube cancer.

Primary Objective of Dose Escalation Phase: To evaluate the safety and tolerability of mirvetuximab soravtansine administered on Day 1 of a 3-week cycle (Q3W) in patients with heavily pretreated FRα-positive EOC, Fallopian tube cancer, and/or platinum-resistant primary peritoneal carcinoma. 

Secondary Objectives: To evaluate the antitumor activity of mirvetuximab soravtansine in patients with heavily pretreated FRα-positive EOC, Fallopian tube cancer, and/or platinum-resistant primary peritoneal carcinoma.

CONCLUSIONS:

1. The Phase 3 microdose of mirvetuximab soravtansine was readily combined with the highest doses (per protocol) of bevacizumab, carboplatin, and pegylated liposomal doxorubicin (PLD), and pembrolizumab in patients with ovarian cancer.

2. The adverse event profile for all combinations was manageable and as expected based on the known profiles of each agent.

3. No new safety signals were identified.

4. Pembrolizumab combination: clinical benefit was also observed with the pembrolizumab combination in patients with recurrent, platinum-sensitive disease, suggesting a path forward for future exploration in the platinum-sensitive setting.

5. Pembrolizumab combination: preliminary safety data from dose escalation warrant continued exploration of this combination.

References:


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