SUMMARY CASE

166th Interstitute Conference May 2, 2025. Prince Songklanagarind Hospital

A 31-year-old Thai female presented with 2-week history of left pelvic pain. Physical examination revealed moderate abdominal distension, and a fixed, cystic-to-rubbery abdominopelvic mass consistent with 20-week gestation, along with positive fluid thrill. Pelvic examination confirmed similarly sized fixed mass in the uterine/adnexal region, bulging of cul-de-sac, smooth rectal mucosa, and free parametria. Laboratory tests showed markedly elevated AFP (33,779 ng/mL) with normal BhCG, LDH, and EOC markers. CTWA revealed a 10x9.5 cm pelvic mass compressing the posterior uterus, with massive ascites and peritoneal nodules (0.9–4 cm) suggestive of metastases.

A provisional diagnosis of malignant ovarian germ cell tumor (MOGCT) was made, most likely a yolk sac tumor. Differential diagnoses included immature teratoma, mixed germ cell tumor, Krukenberg tumor from GI origin, and hepatocellular carcinoma. The patient and her family were counseled on fertility-sparing surgery (FSS), with unilateral salpingo-oophorectomy (SO) and preservation of the contralateral ovary and uterus recommended as standard treatment in young women, even in advanced disease, due to high chemosensitivity. In cases of bilateral involvement, unilateral SO and contralateral cystectomy may be considered.

During the preoperative period, the patient developed acute dyspnea with desaturation. Imaging revealed a right-sided pleural effusion, prompting bilateral PCD insertion. Pleural fluid cytology was negative for malignancy. Intraoperatively, the patient had massive ascites, dense pelvic adhesions (frozen pelvis), a 12 cm complex tumor in the cul-de-sac, non-visualization of the right ovary, and multiple omental seedings. The tumor was inoperable, and a pelvic mass biopsy confirmed a yolk sac tumor with Schiller-Duval bodies, consistent with advanced-stage disease. One week postoperatively, the patient began BEP chemotherapy. Following three cycles, CT imaging showed a good response with reduction of the pelvic mass and a small residual peritoneal nodule in the right subhepatic area.

The patient subsequently underwent interval debulking surgery, including total abdominal hysterectomy, bilateral SO, omentectomy, and lysis of adhesions. Optimal debulking was achieved with R1 resection, leaving residual disease as a peritoneal nodule at the right peritoneum. She received one additional cycle of adjuvant BEP but had to discontinue further treatment due to prolonged neutropenia. Follow-up CT showed no gross residual disease or recurrence, and tumor markers were negative.

Four months after achieving complete clinical response, the patient remained asymptomatic but had a rising AFP level (7 to 410 ng/mL), and CT confirmed loco-regional recurrence at the vaginal stump. Systemic chemotherapy was resumed, with TIP as the preferred regimen. Alternative options included paclitaxel/carboplatin, with further management based on treatment response after three cycles.

This case supports the viability of FSS in all stages of MOGCT, given their high chemosensitivity and favorable reproductive outcomes. Neoadjuvant chemotherapy (NACT) with BEP for 1–2 cycles followed by interval debulking surgery and adjuvant chemotherapy for 2 cycles is an acceptable approach in advanced disease. Long-term follow-up is essential, ideally for at least 10 years, particularly with serial AFP monitoring if initially elevated.