Poster 18: Clinical Characteristics, Management and Outcomes of Growing Teratoma Syndrome: A Case Series.

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Topic
Ovarian

Objectives
Growing Teratoma Syndrome (GTS) is a rare complication following chemotherapy for immature teratomas (IT). This study aims to describe the clinical characteristics, management, and treatment outcomes of GTS.

Methods
We conducted a retrospective analysis of GTS cases treated at our institution from July 1990 to February 2025. Descriptive statistics were utilized. We examined GTS characteristics, management, and rate of recurrence.

Results
We identified 19 GTS patients with a median age at diagnosis of 27 years (range 11-42). Primary tumor was pure IT in 42% of cases, IT & Yolk Sac Tumor (YST) in 47%, and IT & YST & Embryonal Carcinoma in 10.5%, with moderate to high grades (grade 2 (9/19), grade 3 (9/19)). Most patients were diagnosed with early-stage disease (52.5% stage I or II). All patients underwent surgery; 8 experienced tumor rupture (42%) and 10 had an optimal cytoreduction (53%). All patients received chemotherapy (19/19), mostly bleomycin, etoposide & cisplatin (18/19). Median time from last treatment to GTS diagnosis was 7 weeks (range 1-248 weeks). GTS was mistaken for recurrence/progression in eleven cases (58%), of whom two received chemotherapy and one chemotherapy and radiotherapy. Almost all had normal germ cell tumor markers (17/19). Ca125 was elevated in two patients. Histologically, 79% were mature teratoma (15/19) and 21% mature glial tissue (3/19). Surgery was the main treatment modality (16/19, see table). Of those with suboptimal resection, three required a second surgery and one underwent a third after suboptimal resection in the second surgery. At a median follow up of 25 months, 58% had stable disease (11/19), 26.3% were without evidence of disease (5/19), and 10.5% were deceased (2/19).

Conclusions
GTS should be considered in the differential diagnosis and biopsy proven prior to initiating treatment for recurrent or progressive IT. A high index of suspicion should be maintained when extensive burden of disease presents with normal tumor markers. GTS can develop soon after systemic therapy for IT or years later. The treatment is surgical and every effort at complete resection should be made.

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