

Chemotherapy-Resistant Invasive Complete Hydatidiform Mole with an Aggressive β -hCG Trajectory Mimicking Choriocarcinoma: A Clinicopathological Diagnostic Challenge!



Dr. Tayaba Shahid, Prof. Dr. Naheed Fatima

Department of Obstetrics and Gynecology, Bahawal Victoria Hospital, Bahawalpur, Pakistan

The Diagnostic Dilemma:

Invasive mole, a usually chemosensitive form of Gestational Trophoblastic Neoplasia (GTN), is defined by molar villi invading the myometrium. When β -hCG keeps rising despite evacuation and chemotherapy, and a limited curettage shows trophoblast without chorionic villi, it can **closely mimic choriocarcinoma**, and the final diagnosis may rest on the hysterectomy specimen.

Case Presentation

Age:

32 years

Obstetric history:

P4+3 with no living issue, presented after a miscarriage at 1.5 months' gestation, followed by evacuation and histopathology.

Presentation:

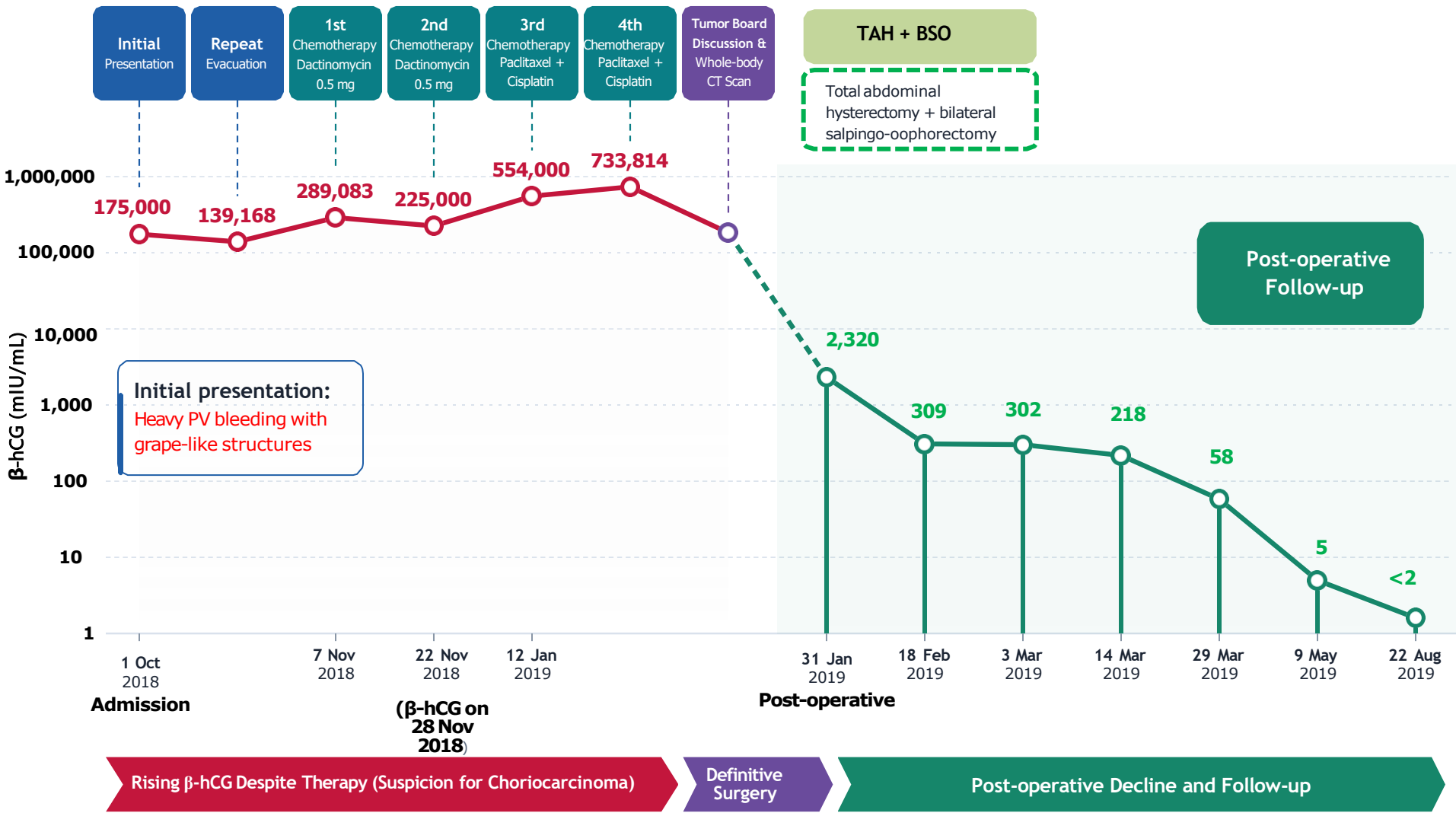
Presented with abnormal uterine bleeding and markedly elevated β -hCG.

Risk stratification

FIGO score 7
High-risk disease

Clinical course: suction evacuation confirmed a complete hydatidiform mole (p57 negative). Persistent heavy bleeding required a repeat evacuation, and β -hCG kept rising through dactinomycin and then paclitaxel + cisplatin. After tumor board review and a whole-body CT showing no distant metastasis, TAH + BSO was performed. The β -hCG trajectory is shown below.

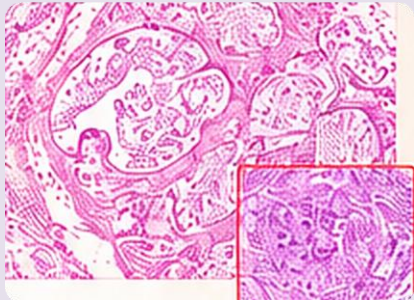
β -hCG Trend and Key Clinical Events (Logarithmic scale. Red line: pre-operative; green line: post-operative)



1

Initial Histopathology

First Evacuation

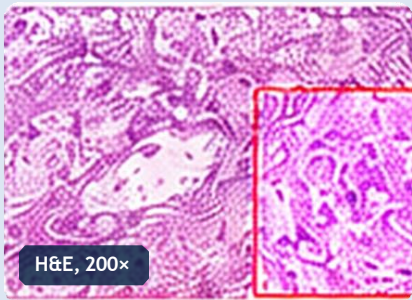


- Suction evacuation specimen.
- Histopathology consistent with complete hydatidiform mole.
- p57 negative.
- Persistent heavy bleeding after evacuation.

2

Repeat Histopathology

Second Evacuation



- Extensive hemorrhage, hyalinization and necrosis.
- Trophoblastic tissue present.
- No definitive chorionic villi identified.
- The specimen was small and limited.
- Concerns for GTN / choriocarcinoma.

3

Imaging Findings



- CT scan showed an enlarged uterus with heterogeneous contents and no definite evidence of metastasis.
- Bulky uterus with heterogeneous lining, 13 x 9 cm mass.
- Well-defined margins. No distant metastasis.

4

Surgical Specimen

– Post Hysterectomy



22-week size uterus

Stony hard consistency
Left tube and ovary
pasted with uterus

5

Final Histopathology

Post Hysterectomy (26-01-2019)



- Residual cystically dilated chorionic villi with trophoblastic proliferation.
- Chorionic villi extending between myometrial smooth muscle fibers.
- Findings consistent with invasive hydatidiform mole.

6

Key Takeaways

- Persistently elevated and rising β -hCG despite evacuation and multi-agent chemotherapy can mimic choriocarcinoma.
- Imaging and tumor board discussion are essential for accurate assessment.
- Definitive surgical management (TAH + BSO) led to a rapid and sustained decline in β -hCG.
- Final histopathology confirmed invasive hydatidiform mole.

7

Conclusion

Invasive mole can present with clinical and biochemical features that overlap with those of choriocarcinoma. A multidisciplinary approach with careful monitoring, imaging, tumor board discussion, and timely surgical intervention is crucial for accurate diagnosis and successful management.