

Gestational Trophoblastic Neoplasia

Gestational Trophoblastic Neoplasia (GTN) is a group of malignant disorders arising from trophoblastic tissue after a pregnancy event (molar pregnancy, abortion, ectopic, or term delivery). It is part of Gestational Trophoblastic Disease (GTD).

Types of GTN

1. Invasive mole
2. Choriocarcinoma
3. Placental Site Trophoblastic Tumor (PSTT)
4. Epithelioid Trophoblastic Tumor (ETT)

Clinical Features

- Persistent or irregular vaginal bleeding after pregnancy
- Persistently elevated or rising β -hCG
- Enlarged uterus
- Symptoms of metastasis:
 - Lung: cough, hemoptysis
 - Brain: headache, seizures
 - Liver: abdominal pain

Diagnosis of GTN

Diagnosis is mainly clinical and biochemical.

FIGO Diagnostic Criteria:

GTN is diagnosed if any of the following occur after molar evacuation:

- Plateau of β -hCG over 3 weeks (4 values)
- Rising β -hCG over 2 weeks (3 values)
- Histologic diagnosis of choriocarcinoma
- Persistent β -hCG >6 months after evacuation
- Metastatic disease with elevated β -hCG

Treatment (Risk-Based)

Low-Risk GTN (Score 0–6)

- Single-agent chemotherapy:
 - Methotrexate (most common)
 - Actinomycin-D (if MTX failure)

Cure rate >98%

High-Risk GTN (Score ≥ 7)

- Multi-agent chemotherapy:
 - EMA-CO regimen

Cure rate 85–90%

PSTT & ETT

- Less sensitive to chemotherapy
- Primary treatment = hysterectomy
- Chemotherapy for metastatic disease

Role of Surgery

- Uncontrolled hemorrhage
- Chemotherapy-resistant localized disease
- PSTT / ETT

Follow-Up

- Weekly β -hCG until normal
- Monthly β -hCG:
 - Low risk \rightarrow 6 months
 - High risk \rightarrow 12 months
- Effective contraception during follow-up



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Fertility & Prognosis

- Fertility usually preserved
- Excellent pregnancy outcomes
- GTN is one of the most curable cancers

Key Points

- PSTT/ETT → surgery first
- β -hCG is both diagnostic and prognostic
- FIGO + WHO scoring guides treatment
- EMA-CO is gold standard for high-risk GTN