Atypical Choriocarcinoma: Recognising Gestational Trophoblastic Neoplasia

Executive Summary · Country Focus: Nigeria

Overview

This session examined gestational trophoblastic neoplasia (GTN) through an unusual case of choriocarcinoma that presented as a vaginal mass during pregnancy and was initially misdiagnosed. It showed that even advanced metastatic disease is highly curable when recognised early, staged correctly and treated by a multidisciplinary team, and it explored the barriers to such care in African settings.

Case at a Glance

Patient	34-year-old, para 3
Presentation	Vaginal bleeding at about 30 weeks; placenta praevia excluded; 2 × 2 cm vaginal nodule found
First excision	Histology initially reported as a benign lesion
Delivery	Spontaneous rupture of membranes; 1.55 kg live male infant
Recurrence	Four weeks postpartum: rapidly regrowing, friable, bleeding 3 × 4 cm mass; Hb 4.3 g/dL needing major transfusion
Diagnosis	Re-excision confirmed choriocarcinoma; β-hCG about 112,000 IU/L and rising; cannonball lung metastases
Staging	FIGO stage III, WHO/FIGO prognostic score 9 (high risk)
Outcome	Multi-agent chemotherapy; β-hCG 168,266 → 9,395 → 355 → undetectable; sustained remission, alive and well

Recognising Atypical GTN

Choriocarcinoma can follow any pregnancy, including a normal term birth, miscarriage or ectopic pregnancy, and may coexist with an ongoing pregnancy or appear months to years later. Vaginal bleeding is the commonest sign, but it can also present with:

- **Local:** vaginal or suburethral nodules, an enlarged uterus, severe haemorrhage and anaemia.
- **High hCG effects:** hyperemesis, early-onset pre-eclampsia, and hyperthyroidism with tachycardia (hCG stimulates the TSH receptor).
- **Metastatic:** cough or haemoptysis, neurological symptoms, jaundice, abdominal distension and weight loss.

Any unexplained vaginal lesion or bleeding in a woman who is or has recently been pregnant warrants a serum β-hCG. Vaginal metastases are highly vascular and can bleed torrentially if biopsied, so in the right context GTN can be diagnosed on β-hCG and imaging without tissue.

The GTD Spectrum

Gestational trophoblastic disease ranges from complete and partial hydatidiform mole to the malignant forms: invasive mole, choriocarcinoma, placental-site trophoblastic tumour and epithelioid trophoblastic tumour. Choriocarcinoma is defined by abnormal trophoblastic proliferation without chorionic villi.

Investigation and Staging

Work-up includes serial quantitative β-hCG, full blood count, group and cross-match, coagulation, liver, renal and thyroid function, chest X-ray, and pelvic ultrasound. If the chest X-ray shows metastases, CT of the chest and abdomen and MRI of the brain are needed to exclude stage IV disease. All products of conception should be sent for histology, as missed tissue means missed GTD.

FIGO stage	Extent of disease
I	Confined to the uterus
II	Extends to other genital structures
III	Lung metastases, with or without genital involvement
IV	Other distant metastases, such as liver or brain

Stage is combined with the WHO/FIGO prognostic score (age, antecedent pregnancy, interval, β-hCG level, tumour size, site and number of metastases, and prior failed chemotherapy) to guide treatment.

Treatment by Risk Group

Risk group	Score	Treatment
Low risk	0–6	Single-agent methotrexate or actinomycin-D; cure rates approach 100%
High risk	7 or more	Multi-agent chemotherapy, with EMA-CO first line; cure rates above 90%
Ultra-high risk	13 or more, or liver/brain metastases	Low-dose induction (for example etoposide–cisplatin) to reduce tumour burden and avoid tumour lysis, haemorrhage or early death, then full multi-agent therapy

Chemotherapy continues for consolidation after β-hCG normalises, usually three further cycles in high-risk disease. Resistant disease may need salvage regimens, and immunotherapy is an emerging option. Surgery is reserved for uncontrolled bleeding, localised or chemotherapy-resistant disease, or other hysterectomy indications; it does not treat metastatic disease on its own.

Surveillance, Contraception and Fertility

An undetectable β-hCG is not the end of treatment. Serial β-hCG, plotted as a regression curve, detects resistance and relapse. Pregnancy should be avoided during treatment and for 12 months after chemotherapy, because a new pregnancy masks recurrence and exposes the fetus to cytotoxic drugs. Earlier concerns that hormonal contraception delays β-hCG regression have been disproven, so it can be used. Fertility is usually preserved; in later pregnancies an early scan, histology of the placenta and a β-hCG check about 6–8 weeks after birth are advised.

Challenges in African Settings

- Delayed diagnosis from repeated evacuations without histology, and few dedicated GTD centres.
- Out-of-pocket costs causing late presentation, interrupted or incomplete chemotherapy, and difficulty obtaining blood and drugs.
- Loss to follow-up from changing phone numbers and relocation, and concerns about poor-quality or counterfeit chemotherapy.
- Care should involve a multidisciplinary team (gynaecology, oncology, pathology, radiology, critical care, blood bank, social work and fertility services) and counsel the partner and family on why completing treatment and follow-up matters.

Key Takeaways

- Consider GTN in any unusual vaginal lesion or unexplained bleeding around pregnancy, even after a normal birth.
- Send pregnancy tissue for histology, and use quantitative β-hCG for diagnosis and monitoring.
- Stage with FIGO and score with WHO/FIGO to match treatment intensity to risk.
- Start ultra-high-risk disease with gentle induction before full chemotherapy.
- Treat follow-up and contraception as part of treatment; GTN is among the most curable gynaecological cancers.