28
Gestational Trophoblastic Tumours

1. GROSS DESCRIPTION

Specimen

— curetting/hysterectomy.
— weight (g) and size (cm), number of fragments, villous diameter.
— molar pregnancy usually presents with first trimester bleeding, a uterus larger than expected for gestational dates, absence of fetal parts on ultrasound examination and markedly elevated serum βHCG. Partial moles present with spontaneous abortion and trophoblastic disease should be considered when there is continued vaginal bleeding following delivery or an abortion.

Tumour

Site

— endometrial/myometrial/extrauterine: serosa
parametria
adnexae.
— fundus, corpus, isthmus—cavity.

Size

— length × width × depth (cm) or maximum dimension (cm). Size >5 cm is prognostically adverse.

Appearance

— haemorrhagic/necrotic/vesicular/nodular/polypoid masses.

Edge

— circumscribed/irregular.

2. HISTOLOGICAL TYPE

Choriocarcinoma

— suspect on curettings if: abundant necrotic/ haemorrhagic decidua, bilaminar aggregates of exuberant syncytiotrophoblast and cytotrophoblast and *no* chorionic villi.

— 50% are preceded by a molar gestation: also seen after normal pregnancy (20%) or spontaneous abortion (30%).
— 2–3% of complete moles progress to choriocarcinoma.
— destructive myometrial and vascular invasion are common, leading to haematogenous spread to lung (60–80%), vagina (30%), pelvis (20%) and liver (17%).
— HCG/cytokeratin/inhibin positive/HPL (human placental lactogen) focal.
— 5-year survival >90% with chemotherapy (uterine disease >95%, metastatic disease 83%).

Invasive hydatidiform mole (chorioadenoma destruens)
— 16% of complete moles.
— penetration into the myometrium or uterine vasculature ± adjacent structures of molar villi associated with variable degrees of trophoblast hyperplasia. Haemorrhage and perforation can occur.
— haematogenous transport of "metastatic" nodules to vagina, lung and CNS. They do not affect the prognosis but may present with per vaginum bleeding or haemoptysis and respond well to chemotherapy.

Placental site trophoblastic tumour (PSTT)
— mostly following a normal term pregnancy (75%).
— polypoid mass composed of monomorphic intermediate trophoblast–mononuclear cytotrophoblast ± multinucleated cells, dissecting myofibres without necrosis or haemorrhage. Peri-/intravascular growth patterns.
— HCG negative, HPL/alpha-inhibin/cytokeratin positive.
— 10–15% malignant (mitoses >2/10 hpfs, deep invasion, clear cells): not chemoresponsive and requires surgical removal.

Epithelioid trophoblastic tumour (ETT)
— along with choriocarcinoma and PSTT a non-villous forming potentially malignant gestational trophoblastic tumour.
— very rare, following normal pregnancy.
— geographical areas of necrosis with islands of uninucleate polygonal eosinophilic cells.
— cytokeratin/alpha-inhibin positive: mostly HCG/HPL negative.
— behaviour similar to PSST rather than choriocarcinoma.

Differential diagnosis for choriocarcinoma, PSTT and ETT include persistent molar tissue, undifferentiated carcinoma and epithelioid leiomyosarcoma.

3. DIFFERENTIATION
See above.

4. EXTENT OF LOCAL TUMOUR SPREAD
Border: pushing/infiltrative
Lymphocytic reaction: prominent/sparse. Improved prognosis with an intense tumour–stroma interface inflammatory infiltrate in choriocarcinoma.