

Gestational Trophoblastic Disease (Molar Pregnancy)

Key points

- Molar pregnancy is a histological diagnosis with rare but significant implications. Prompt detection and referral to the Regional Centre is therefore essential.
- Although the Regional Centre will manage most follow up after referral, it is important for anyone seeing patients with Gestational Trophoblastic Disease to be familiar with management processes.

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This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Caution is advised when using guidelines after the review date. This guideline is for use in Frimley Health Trust hospitals only. Any use outside this location will not be supported by the Trust and will be at the risk of the individual using it.

Please continue to use this guideline but be aware that it is in review (17/12/2024).

Version Control Sheet

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Abbreviations

GTD	Gestational Trophoblastic Disease
SMM	Surgical Management of Miscarriage
βHCG	Beta Human Chorionic Gonadotropin

Introduction

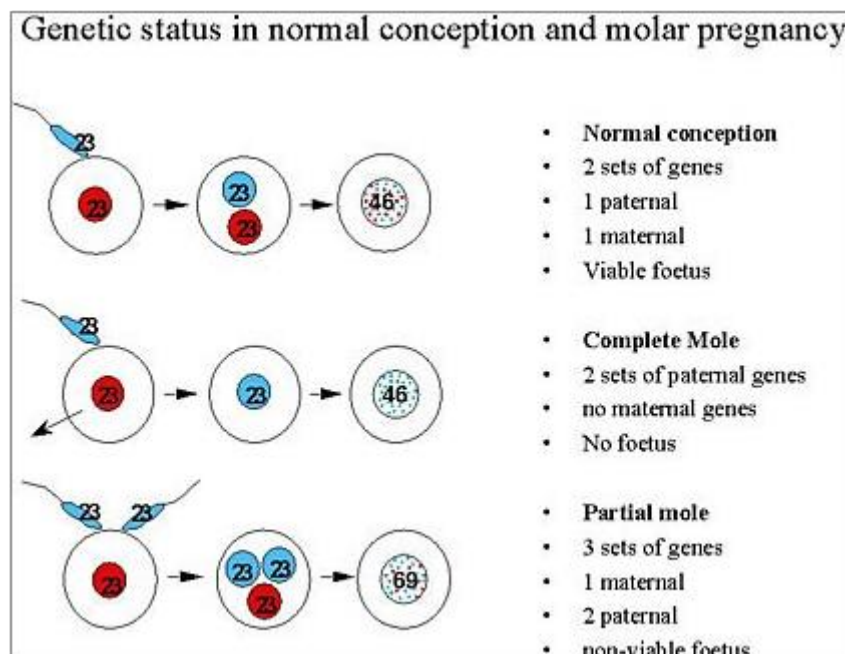
Trophoblastic diseases result from the development of abnormally fertilised gametes. It is a relatively uncommon event. A small number of affected individuals suffer from heavy bleeding or more rarely malignancy in the affected or future pregnancies. Due to its rarity, these events are referred to a Regional Centre after initial/acute management, for ongoing follow up. The Regional Centre for FHFT is Charing Cross Hospital.

Presentation

- The most common presentation is of irregular vaginal bleeding or a first trimester miscarriage.
- The 'snowstorm' appearance on ultrasound is that of an advanced mole with the uterine cavity filled with cystic placental tissue.
- Molar pregnancies less commonly present in the first trimester with the "classic symptoms" (hyperemesis, hypertension, hyperthyroidism, passing grape-like products and bilateral multiple luteal cysts)
- Only 58% of complete moles and 17% of partial moles are suspected on ultrasound examination prior to histological diagnosis. It is for this reason that histological assessment of all medically and surgically managed miscarriages is recommended, and patients who have treatment for miscarriage should be advised to perform a urinary pregnancy test 3 weeks after miscarriage. This is not always possible when managed at home, but we should aim to do so when possible.
- Very rarely patients may present with haemoptysis or seizures due to metastasis to the brain or lungs.

Gestational Trophoblastic Disease (hydatidiform mole, invasive mole, choriocarcinoma, placental-site trophoblastic tumour)

- This is a rare event in the UK; with a calculated incidence of approximately 1/600 pregnancies.
- There is evidence of ethnic variation in the incidence of GTD in the UK, with those from Asia having a higher incidence compared with non-Asians.



Complete mole

- These conceptions are diploid, consisting of entirely paternally derived genes. Complete moles usually (75–80%) arise as a consequence of duplication of a single sperm following fertilisation of an 'empty' ovum. No discernible embryo develops, and the trophoblast rapidly becomes hyperplastic.

- On ultrasound there is a variable amount of echogenic placental tissue within the cavity, containing multiple cystic areas. The differential diagnosis is of retained placental tissue that has undergone hydropic degeneration.
- The clinical history may help; retained placental tissue will usually follow an incomplete miscarriage whereas a person with a complete mole will most often present with a history of minimal vaginal bleeding.
- A high serum β hCG is indicative but not diagnostic of a complete mole. Therefore, if a molar pregnancy is suspected on ultrasound a SMM should be arranged so that the trophoblast can be sent for histological examination.
- The risk of persistent trophoblastic disease needing chemotherapy following a complete mole is 8-20% and the risk of a recurrent molar pregnancy 1- 2%.

Partial mole

- These conceptions are triploid with rare exception. The extra set of chromosomes is usually paternally derived. Partial moles usually occur following dispermic fertilisation of an ovum.
- Most triploid conceptions end in early miscarriage and only about a third of these are partial moles.
- The ultrasound findings suggestive of a partial mole are those of a missed miscarriage with thickened trophoblast containing multiple, avascular cystic spaces. However, most cases will present as a missed miscarriage with no obvious ultrasound or macroscopic features of molar change in the trophoblast.
- The risk of persistent trophoblastic disease needing chemotherapy following a partial mole is 0.5% and the risk of a recurrent molar pregnancy 1-2%.

Twin pregnancy with a molar pregnancy and viable fetus

- Only 40% of these pregnancies will result in a live birth.
- The risks are of spontaneous miscarriage (25-50%), preterm delivery (30-40%) and pregnancy induced hypertension (50-60%).
- The pregnancy induced hypertension may be severe and necessitate termination of the pregnancy or extremely preterm delivery.
- These patients should therefore be counselled regarding the risks of proceeding with the pregnancy and offered a therapeutic termination.
- Prenatal invasive testing for fetal karyotype should be considered when there is a possibility of singleton partial molar pregnancy rather than a normal twin with a complete mole. Prenatal invasive testing for fetal karyotype should also be considered in cases of abnormal placenta.

Surgical management (SMM) for molar pregnancy

- Suction curettage is the method of choice and ideally should be performed by a senior doctor due to risk of haemorrhage. Ultrasound guidance may be useful to improve evacuation rates while minimising the risk of perforation.
- Prior cervical preparation (single dose of misoprostol) is safe; caution should be taken for routine use of oxytocic agents due to potential risk of embolization of trophoblastic tissue. If evacuation is followed by excessive bleeding, a single dose of oxytocin can be used after complete evacuation.
- If there is a significant haemorrhage prior to or during removal, surgical removal should be expedited and the need for oxytocin infusion weighed up against the risk of tissue embolisation.
- Consider the use of a Foley's catheter to provide uterine tamponade if bleeding; Good effects can be achieved with as little as 30ml balloon inflation.
- These patients are ideally operated on the Frimley/Wexham sites as there is availability of senior obstetricians as well and timely support from the onsite haematology team.
- Repeated evacuation procedures in the same pregnancy are rarely advised unless haemodynamically compromised and if required then the senior EPU clinician should discuss with Charing Cross prior to booking.

Anti-D prophylaxis should be administered after SMM for Rh negative women

Referral for follow-up to a trophoblastic screening centre

- All those with confirmed histological diagnosis of molar pregnancy will need to be registered with Charing Cross Hospital for further follow-up, advice and support.
- Clinicians who have operated on patients who are subsequently diagnosed with a molar pregnancy must inform the EPU team promptly.
- On diagnosis of molar pregnancy, the patient's clinician and/or EPU team are responsible for referral to Charing Cross. Patients can be informed either by telephone or face-to-face consultation, but this must be supported with written information. Their GP must also be informed. See the following webpage for patient information:
http://www.hmole-chorio.org.uk/patients_info/
- Affected patients should be informed that they may be followed up by Charing Cross for more than 6 months.
- Referrals can be made to Charing cross using Webpage (preferred): https://hmole-chorio.org.uk/info-for-clinicians/clinicians_info_registration/ from an NHS computer, by a senior clinician (Consultant or EPU sister) who have registered with this webpage.
- Email: Alternatively, the form can be downloaded from this page and emailed to ichc.hmole@nhs.net

Future Pregnancy

Previously, all those with a positive diagnosis of molar pregnancy were informed to notify the screening centre at the end of any future pregnancy to exclude disease recurrence. More recent guidance from Charing Cross offers a more selective approach:

- for those with a single molar pregnancy history, there is no longer the need to request β hCG at 6 and 10 weeks after future pregnancies as the risk of choriocarcinoma developing is <1:4,000.
- Those with multiple moles or those treated with chemotherapy will need to be followed up after each pregnancy.

Contraception

Patients should avoid pregnancy until follow up is complete.

Oral contraception: Oestrogen and/or progestogens taken between evacuation of the mole and return to normality of β hCG does NOT appear to increase the risk of invasive mole or choriocarcinoma. Therefore, patients may use oral contraceptives after evacuation, even if β hCG is elevated.

For further up to date advice regarding contraception and emergency contraception, please see <https://www.fsrh.org/documents/contraception-after-pregnancy-guideline-january-2017/>

References

Tidy J, Seckl M, Hancock BW, on behalf of the Royal College of Obstetricians and Gynaecologists. Management of Gestational Trophoblastic Disease. BJOG 2021;128:e1–e27 Faculty of Sexual & Reproductive Healthcare (FSRH). Clinical Guideline: Contraception After Pregnancy. October 2020. <https://www.fsrh.org/documents/contraception-after-pregnancy-guideline-january-2017/>

Patient information available at https://hmole-chorio.org.uk/patients_info