Brighton and Sussex University Hospitals NHS Trust

Diagnosis and management Of Gestational Trophoblastic Diseases (GTD)

Gynaecology Protocol: GP004

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Key Principles

These guidelines and algorithms are aimed to assist in decision making. They are not designed to be prescriptive and you are not expected to use them in exclusion of discussions with senior colleagues.

Evidence used to inform these guidelines had been drawn from national/RCOG guidelines. Where applicable other references are quoted.

These guidelines have been reviewed by all clinicians involved in early pregnancy care, including consultants, trainees and specialist and senior nursing staff.

A protocol is a set of measurable, objective standards to determine a course of action. Professional judgement may be used in the application of a protocol.

Scope

These guidelines apply to women who have a confirmed diagnosis of Ectopic pregnancy.

Responsibilities

Nurses, Midwives & Gynaecologists & Obstetricians:

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this guidance

Management Team

- To ensure the protocol is reviewed as required in line with Trust and National recommendations
- To ensure the protocol is accessible to all relevant staff
- To ensure protocols are available to service users on request

1 Introduction

Gestational Trophblastic disease (GTD) is a term used for a group of pregnancy-related tumours characterized by proliferation of trophoblastic tissue.
This Term covers a broad spectrum of disorders from the pre-malignant complete and partial molar pregnancy to the malignant conditions of invasive mole, choriocarcinoma and the very rare placental site trophoblastic tumour (PSTT).
GTD is a rare condition with an incidence of 1/714 live birth and a high cure rate (98-100%)

1.1 Clinical Features
The classic features of molar pregnancy are

- Irregular uterine bleeding
- Hyperemesis
- Early pregnancy failure
- Excessive uterine enlargement

1.2 Rare presentations include

- Hyperthyroidism
- Early onset pre-eclampsia
- Abdominal distension

1.3 Very rare

- Acute respiratory failure
- Neurological symptoms such as seizures

2 Ultrasound examination

It is helpful in making a pre-evacuation diagnosis but the definitive diagnosis is made by histological examination of the products of conception.

3 Complete Moles

Complete moles are diploid and androgenic in origin, with no evidence of fetal tissue. Complete moles, usually (75–80%) arise as a consequence of duplication of a single sperm following fertilisation of an ‘empty’ ovum. Some complete moles (20–25%) can arise after dispermic fertilisation of an ‘empty’ ovum.
The majority of histologically proven complete moles are associated with an ultrasound diagnosis of delayed miscarriage or an anembryonic pregnancy.

4 Partial Moles

Partial moles are usually (90%) triploid in origin, with two sets of paternal haploid genes and one set of maternal haploid genes. Partial moles occur, in almost all cases, following

dispermic fertilisation of an ovum. Ten percent of partial moles represent tetraploid or mosaic conceptions. In a partial mole, there is usually evidence of a fetus or fetal red blood cells.

The diagnosis may only be made in 35-40% of cases of partial moles on ultrasound before 14 weeks.

5 Histology

5.1 For the above reasons, the histological assessment of material obtained from the medical or surgical management of all failed pregnancies is recommended to exclude trophoblastic disease.

5.2 As persistent trophoblastic neoplasia may develop after any pregnancy, it is recommended that products of conception, obtained after all repeat evacuations, should also undergo histological examination with consent as per P1 form.

5.3 The consenting practitioner should complete a P1 form (histological assessment of Products of conception) prior to the medical or surgical management of miscarriage, and ALWAYS tick the box – for histological examination.

5.4 Urinary pregnancy test should be performed 3 weeks after medical or conservative management of failed pregnancy if products of conception are not obtained.

6 Evacuation of molar pregnancy

6.1 Suction curettage (surgical management) is the method of choice of evacuation for complete molar pregnancies and partial molar pregnancies except when size of foetal parts deters the use of suction curettage and then medical evacuation may be used. The procedure should be performed at The PRH site and not Lewes Victoria when a molar pregnancy is suspected on ultrasound.

6.2 Preparation of the cervix immediately prior to evacuation is safe. Prolonged cervical preparation should be avoided to reduce the risk of embolization of trophoblastic cells.

6.3 Surgery of known molar pregnancies should be performed in main theatres or DSU at PRH after discussion with Consultant.

6.4 The routine use of oxytocic infusion prior to completion of the evacuation is not advised.

6.5 Oxytocic agents may be used to control life–threatening heavy bleeding.

6.6 Anti-D prophylaxis is advised after evacuation of a partial molar pregnancy if the Womens Rh Negative.

6.7 Anti-D prophylaxis is not required after the evacuation of a complete molar pregnancy as long as the diagnosis is confirmed.

7 Follow up

7.1 All women diagnosed with GTD on histology are informed about their diagnosis by the EPU nurse and given a leaflet to explain the condition.

7.2 Women are then referred to Charing Cross Hospital by the EPU nurse.

7.3 Referral may be done by paper forms, via email or on-line.

7.4 Charing Cross hospital will follow them up directly for urine HCG results.

7.5 The importance of compliance with follow up testing must be emphasised to the woman.

7.6 Advice from Charing Cross Hospital to the women and referring clinicians can be accessed via

http://hmole-chorio.org.uk/clinicians_info_registration.html

8 Future Pregnancy and contraceptive advice

8.1 Women should be advised not to conceive until their follow-up is complete.

8.2 Women who undergo chemotherapy are advised not to conceive for 1 year after completion of treatment.

8.3 She should be advised to use barrier methods of contraception until hCG levels revert to normal.

8.4 There is no evidence as to whether single-agent progestogens have any effect on GTD.

8.5 If oral contraception has been started before the diagnosis of GTD was made, the woman can be advised to remain on oral contraception but she should be advised that there is a potential but low increased risk of developing GTD.

8.6 Intrauterine contraceptive devices should not be used until hCG levels are normal.

8.7 Offer viability scan at 7/40 for future pregnancy

8.8 Advice patient to notify midwife of previous molar pregnancy in future pregnancy

8.9 Offer viability scan at 7/40 for future pregnancy

8.10 Advice patient to notify midwife of previous molar pregnancy in future pregnancy

9 Future pregnancies

9.1 The risk of a further molar pregnancy is low (1/80)

9.2 More than 98% of women who become pregnant following a molar pregnancy will not have a further molar pregnancy nor are they at increased risk of obstetric complications.

9.3 Following a molar pregnancy any future pregnancy event should be monitored for recurrence by repeating the hCG values 6-8 weeks following the completion of pregnancy.

9.4 Women should be advised to contact the treatment centre as soon as possible for follow up arrangements.

10 Gestational Trophoblastic Neoplasia (GTN)

If there is any evidence of persistence of GTD, most commonly defined as a persistent elevation of beta humanchorionic gonadotrophin (βhCG), the condition is referred to as gestational trophoblastic neoplasia (GTN).
Any woman who develops persistent vaginal bleeding after a pregnancy event is at risk of having GTN. A urine pregnancy test should be offered and performed in all cases of persistent or irregular vaginal bleeding after a pregnancy event (molar or non-molar) and βhCG levels evaluated.

11 Twin Pregnancy

11.1 If there is a doubt about a combined molar pregnancy with a viable twin pregnancy – seek advice from the regional Fetal medicine Centre.

11.2 In the situation of a twin pregnancy where there is one viable fetus and the other pregnancy is molar, the woman should be counselled about the increased risk of perinatal morbidity and outcome for GTN

11.3 Consider offering prenatal invasive testing for fetal karyotype in such cases.

Prenatal invasive testing for fetal karyotype should be considered in such cases.

12 Reference

1 – The Management of Gestational Trophoblastic Disease.
Green–top Guideline No. 38 February 2010
https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_38.pdf.