MOLAR PREGNANCY

AKA Hydatidiform Mole
Outline

• Definition and Types of Molar Pregnancy
• Genetics & Incidence
• Signs & Symptoms
• Case Study
• Midwifery Care & Referral for Medical Management
• Follow-up Care
• Risk & Future Pregnancies
What is molar pregnancy?

• Genetically abnormal pregnancy
• Developmental anomaly of the placenta
  • Type of Gestational Trophoblastic Disease
• Two Types: Complete and Partial
  • Complete: Genetically entirely from father (no fetal tissue apparent)
  • Partial: Usually triploid (both villous changes and fetal tissues)
• Placental villi become mass of clear, cystlike vesicles in clusters (resembles a bunch of grapes)
• Rarely – Twin pregnancy with one normal fetus/placenta and one mole
Molar Pregnancy
Complete vs. Partial
Complete vs. Partial
Complete vs. Partial
Genetic status in normal conception and molar pregnancy

- Normal conception
  - 2 sets of genes
  - 1 paternal
  - 1 maternal
  - Viable foetus

- Complete Mole
  - 2 sets of paternal genes
  - no maternal genes
  - No foetus

- Partial mole
  - 3 sets of genes
  - 1 maternal
  - 2 paternal
  - non-viable foetus
Hydatidiform Mole

- Hydatidiform mole is usually a benign neoplasm
- Potential for becoming malignant (rare – choriocarcinoma)
- Incidence: 1.5 in 1000 pregnancies
  - Ten times higher in women over 45
  - Increased risk in Asian ethnicity
  - Increased recurrence rate with previous molar pregnancy

Source: Varney's Midwifery, Fourth Edition
Signs and Symptoms

- Persistent, often severe, nausea and vomiting
- Uterine bleeding by 12th week of pregnancy; spotting, usually just a bloody discharge (more brown than red) intermittently or continuously
- Large-for-dates uterus (about 1/3 of cases)
- Shortness of breath
- Enlarged, tender ovaries
- No FHT
- No fetal activity
- Fetal parts not evident with palpation
- PIH, Pre-E, or eclampsia before 24 weeks
Can You Tell the Difference?

**Complete Mole**

**Partial Mole (miscarriage)**
Case Study:

• 27 y/o G4P3 - history of three full term homebirths
• March 5 - 9 ½ weeks gestation - Ultrasound revealed fetal demise at 6w3d. Decided to wait for natural miscarriage. hCG 80,170 mIU/mL
• March 6 - hCG 78,037
Case Study Continued

• March 14 – Repeat ultrasound

• March 19 - hCG 61,910
Case Study Continued

- March 23 - Induced miscarriage with misoprostal at 12 weeks. Sent photo of tissue that passed to midwife, then flushed tissue. Light/minimal bleeding.
Case Study Continued

• March 26 (3 days post-m/c) - C/O leg cramps. Sent to ER to r/o blood clots. U/S in ER revealed retained tissue in lower uterine segment. ER doctor sent her home to finish the miscarriage naturally.

• March 28 - Saw OB as follow-up to ER visit. Showed OB photo of tissue. OB assured her it was not a partial molar pregnancy. Also assured her tissue on ultrasound would pass without issue. Minimal bleeding, but foul odor.

• March 29 – Passed more tissue. Foul odor resolved. Bleeding continued to be light.
Case Study Continued

• April 6 (two weeks post-m/c) - Soaked two pads in 30 minutes and passed golf ball size clot. Called OB who called in methergine. Back to light bleeding.

• April 15 - Heavy bleeding. Called OB who called in misoprostal with instructions to take for 24 hours. Bleeding not resolved.

• April 16 - Took misoprostal at 7 am. At 9 am, soaked two pads within 30 minutes and went to ER. Long wait at ER while bleeding. Ultrasound revealed no retained tissue. Asked for D&C. Doctor said it wouldn't help. Gave Rx for misoprostal and discharged.
Case Study Continued

• April 20 (one month post m/c) - OB visit & ultrasound. Thin endometrium. Ordered 24 hours of misoprostal q 6 hrs to evacuate lining, then reassess with ultrasound following day. Client asked for a D&C, and OB said it was pointless and it is an issue of subinvolution of uterus. Client did as OB suggested. U/S next day showed very thin endometrium.

• April 25 - Heavy bleeding again. Called OB, who called in Lysteda.

• April 28 - Gush of blood. Took 600mcg misoprostal sublingually. Heavy bleeding for two hours. Took another dose of misoprostal. Passed golf ball size clot, then bleeding lightened.
Case Study Continued

• April 29 - Client went to DIFFERENT OB, who immediately scheduled a D&C for three days later.
• April 30 - Gush of blood followed by heavy bleeding. Took misoprostal.
• May 2 – D&C - found and removed retained tissue 4 x 3.5 x 1 cm
• May 12 - Bleeding resolved
• May 13 – Follow-up with OB. Pathology revealed PARTIAL MOLAR PREGNANCY
• May 16 - hCG 2 mIU/mL (hCG monitored for 2+ months)
Midwifery Care & Referral

If you suspect a molar pregnancy:

• Check hCG levels
  • Persistently high, or rising, after 100 days from LMP indicates abnormal trophoblastic growth (or multiple gestation)
• Refer for sonogram
  • Hydatidiform mole has a characteristic pattern on ultrasound.
• Refer to consulting physician or MFM

Source: Varney's Midwifery, Fourth Edition
Medical Management

• If suspected, further investigations may include:
  • CBC
  • Measurement of creatinine and electrolytes
  • Liver – kidney – thyroid function tests
  • Quantitative beta-hCG measurement
  • Ultrasound, CT, or MRI

• Suction curettage is the preferred method of evacuation in order to preserve fertility
  • Best to avoid cervical preparation, oxytocic drugs and sharp curettage to minimize risk of dissemination of tissue leading to metastatic disease

• Rh-negative women should be given anti-D immunoglobulin
Follow-up Care

• Aim is to confirm successful treatment and r/o malignancy.
• Weekly hCG until negative (<5 mIU/mL)
• Two additional weekly hCG tests
• If negative, follow with three consecutive monthly hCG tests
• If all remain negative, care is complete and pregnancy may be attempted if desired.

• Main indicators of residual disease:
  • Persistent vaginal bleeding
  • Elevation of serum beta-hCG levels
Follow-up Care

• Partial molar pregnancy is almost always benign.
  • Persistent disease occurs in 1.2% to 4% of cases
  • Metastasis occurs in only 0.1% of cases

• Complete moles – risks above are five times greater (8% and 0.5%)

• Total hysterectomy is an option for women who do not wish to
  preserve fertility, particularly for women >40 years of age.
  • Hysterectomy eliminates risk of locally invasive disease, but it does not
    prevent metastases.
Risk Categories

• Complete molar pregnancy is divided into low and high risk for persistence based on S/S of marked trophoblastic proliferation:
  • HCG >100,000 mIU/mL
  • Excessive uterine enlargement
  • Theca-lutein ovarian cyst >6 cm in diameter
  • Older maternal age
  • Previous molar pregnancy

• Controversial – use of chemoprophylaxis for high-risk complete molar pregnancy decreases risk of GTD from 50% to 10-15%.
Postmolar Gestational Trophoblastic Disease

• Risk of persistent or recurrent GTD is greatest in first 12 months

• HCG criteria for diagnosis of postmolar GTD:
  • HCG level plateau of four values ±10% recorded over a 3-week duration (days 1, 7, 14, and 21)
  • HCG level increases of more than 10% of three values recorded over a 2-week duration (days 1, 7, and 14)
  • Persistence of detectable hCG for more than 6 months after molar evacuation

• Use of reliable hormonal contraception is recommended while hCG levels are being monitored, and oral contraceptives do not increase the incidence of postmolar GTD or alter pattern of hCG levels.
Future Pregnancies

• Pregnancies after a molar evacuation are usually normal gestations.
• After 6-12 months of hCG monitoring, contraception may be discontinued by women desiring pregnancy.
• Women with prior partial or complete moles have a 10-fold increased risk (1-2% incidence) of a second molar pregnancy.
  • All future pregnancies should be evaluated by early ultrasound.

Questions & Comments

Partial Molar Pregnancies