LMP

Last Minute Preparation

Obstetrics & Gynecology

for Postgraduates

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JAYPEE

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CHAPTER 3

Molar Pregnancy

GESTATIONAL TROPHOBLASTIC DISEASE

A condition characterized by abnormal trophoblast proliferation which produces excess amount of pregnancy hormone—human chorionic gonadotropin (hCG)—crucial for gestational trophoblastic disease (GTD) diagnosis, management, and surveillance.

MODIFIED WORLD HEALTH ORGANIZATION CLASSIFICATION OF GESTATIONAL TROPHOBLASTIC DISEASES

Molar Pregnancies—Hydatidiform Mole

- Complete mole
- Partial mole
- Invasive mole

Table 1 shows the main differences between complete mole and partial mole.

Trophoblastic Tumor

- Choriocarcinoma
- Placental site trophoblastic tumor
- Epithelioid trophoblastic tumor

TABLE 1: Difference between partial and complete molar pregnancy.

Feature	*Partial mole*	*Complete mole*
Karyotype	69,XXX or 69,XXY	46,XX
Clinical presentation:		
Diagnosis	Missed abortion	Molar gestation
Uterine size	Small for date	Large for date
Theca lutein cyst	Rare	25–30% of cases
Initial hCG level	<100,000 mIU/mL	>100,000 mIU/mL
Medical complication	Rare	Uncommon
Rate of subsequent GTN	1–5% of cases	15–20% of cases
Pathology:		
Embryo-fetus	Often present	Absent
Amnion-fetal erythrocyte	Often present	Absent
Villous edema	Focal	Widespread
Trophoblastic proliferation	Focal, slight-to-moderate	Slight to severe
Trophoblast atypia	Mild	Marked
P57KIP2 immunostaining	Positive	Negative

(GTN: gestational trophoblastic neoplasia; hCG: human chorionic gonadotropin)

MEDICAL COMPLICATIONS

Anemia, hyperthyroidism, hyperemesis gravidarum, preeclampsia, and infection.

RISK FACTORS

The strongest risk factors are age—both at extremes of reproductive life, and history of prior hydatidiform mole.

CLINICAL FINDINGS

History

- Amenorrhea
- Bleeding per vaginal (may lead to profuse hemorrhage)
- Nausea and vomiting, or hyperemesis
- Features of hyperthyroidism, early-onset preeclampsia and abdominal distension due to theca lutein cysts.
- Rarely with hemoptysis/seizures due to involvement of lungs or brain.

Physical Findings

- Uterine growth more than gestational age
- Soft in consistency
- No fetal movement with complete moles.
- Serum free thyroxine (fT4) ↑ and thyroid-stimulating hormone (TSH) ↓
- Severe preeclampsia and eclampsia are relatively common with advanced molar pregnancies.

Sonography

A complete mole appears as an echogenic uterine mass filling the endometrial cavity with no fetus or gestational sac, composed of numerous anechoic cystic spaces of different sizes and shapes. This appearance is often described as a *"snowstorm."*

A partial mole has features that include a thick, multicystic placenta plus a fetus, or fetal tissue. Definitive diagnosis by histopathological examination. Ultrasonography (USG) shows cystic spaces in the placenta, and ratio of transverse to antero-posterior dimension of the gestational sac greater than 1:1.5.

MANAGEMENT

Investigation

- Hemogram
- Beta-hCG
- Serum TSH, free thyroxine (FT4)
- Blood grouping
- Chest X-ray
- Ultrasonography pelvis

TREATMENT

Irrespective of gestational age/uterine size, uterine evacuation by *suction curettage* is the preferred treatment, better under USG guidance to decrease the risk of uterine perforation. Role of Oxytocin infusion during surgical removal—routine preoperative use is not recommended but should be used only when significant bleeding prior to or during removal, to decrease risk of tissue embolization.

Anti-D immunoglobulin (RhoGAM) to Rh D negative women.

POSTEVACUATION SURVEILLANCE

Due to risk for subsequent gestational trophoblastic neoplasia (GTN) following molar pregnancy, postevacuation surveillance is indicated. Serial measurement of serum β-hCG levels aim to detect persistent or renewed trophoblastic proliferation.

- *The initial serum β-hCG level:* Within 48 hours of evacuation.
- There after every 1–2 weeks. Levels are followed until they become undetectable, usually 56 days, then monthly determinations for 6 months. If β-hCG does not normalize within 56 days, then 6-month follow-up done from date of normalization.
- For partial mole follow-up concluded once it is normal on two occasions 4 weeks apart.

Women are advised not to conceive till their follow-up is complete, i.e., 6 months after normalization of β-hCG, when monitoring is discontinued and pregnancy allowed. During follow-up reliable *contraception* is advised to avoid confusion caused by rising β-hCG levels from a new pregnancy. Hormonal contraception either in form of combined oral contraceptive (COC) pills, injection Depot Medroxyprogesterone Acetate (DMPA) or progestin implant can be given. Intrauterine devices are not used until β-hCG levels are undetectable because of the risk of uterine perforation.

SUGGESTED READING

1. Berek JS. Berek & Novak's Gynecology, 17th edition. Philadelphia: Wolters Kluwer; 2022.
2. Tidy J, Seckl M, Hancock BW. Management of gestational trophoblastic disease. BJOG. 2021;128:e1-e27.

Last Minute Preparation
Obstetrics & Gynecology
for Postgraduates

Salient Features

- Covers all important topics of Obstetrics and Gynecology, which are frequently asked in postgraduate examination (MS/MD/DNB)
- Incorporates latest updated recommendations from FOGSI/RCOG/NICE/ACOG/FSRH and ESHRE guidelines
- Comprehends recent advances in various fields related to obstetrics and gynecology, reaching far beyond standard textbooks, namely Recent Advances, Progress, and UpToDate
- Also includes important articles from the journals of the British Journal of Obstetrics and Gynaecology, American Journal of Obstetrics and Gynecology (AJOG), and TOG (The Obstetrician & Gynaecologist), helpful for MRCOG examinations.

.....all in notes form!

Mridu Sinha MD (Obs and Gyne) MRCOG FACOG FMAS joined Shri Ram Murti Smarak Institute of Medical Sciences (SRMS IMS), Bareilly, Uttar Pradesh, India, as Assistant Professor in 2011, promoted to Associate Professor and then to Professor, and is presently working as same for the last 5 years. During her teaching tenure, she cleared Part-2 and Part-3 examinations of MRCOG (Member of the Royal College of Obstetricians and Gynecologists), being awarded MRCOG degree in London, UK, April '24. In her own words, "when I was preparing for MRCOG along with my duties and other personal commitments at this age, I experienced that due to time constraints whenever I started any topic, I used to count the number of pages and time it will take…. Also being PG In-charge and Examiner (both UGs and PGs), I noticed that our gynecology residents who are always busy with their patients, conducting deliveries, and managing emergencies at the same time being a tertiary care referral center, they are also having the same time constraints to go through various textbooks, updated guidelines, and other recent advances at a time! So, I came-up with this idea of providing notes, which a standard answer of an average student must contain, i.e., covering all important points in minimum time (with minimum number of pages, of course) it will help them a lot in both theory and practical examinations as well." Besides, many useful topics, such as uterine artery embolization (UAE), manual vacuum aspiration (MVA), endometrial ablation, diathermy, enhanced recovery protocol (ERP), sexual assault are well-covered in short. The author-cum-editor was well supported by all teaching faculties of SRMS IMS in bringing out this first edition of the book—*LMP Last Minute Preparation Obstetrics & Gynecology for Postgraduates!*

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