

Gestational Trophoblastic Diseases

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Gestational Trophoblastic Diseases

- ❖ **Gestational trophoblastic disease (GTD)** is a term used for a group of pregnancy-related tumours. The cells that form gestational trophoblastic tumours are called trophoblasts and come from tissue that grows to form the placenta during pregnancy.



Pathological Classification

- ▶ The main types of gestational trophoblastic diseases are:
 - ▶ Hydatidiform mole
 - 1.complete mole
 - 2.partial mole
 - ▶ Invasive mole
 - ▶ Choriocarcinoma
 - ▶ Placental-site trophoblastic tumor

Clinical Classification

- ▶ BENIGN (80%)
- ▶ MALIGNANT (20%)

Hydatidiform Mole (Molar Pregnancy)

It is made up of villi that have become swollen with fluid. The swollen villi grow in clusters that look like bunches of grapes. This is called a molar pregnancy, but it is not possible for a normal baby to form. Still in rare cases (less than 1 in 100), a normal fetus can develop alongside the molar pregnancy. These moles are not cancerous, but they can develop into cancerous GTDs.



Types Of Hydatiform Moles:

1. Complete Mole
2. Partial Mole

SPECTRUM OF GESTATIONAL TROPHOBLASTIC M



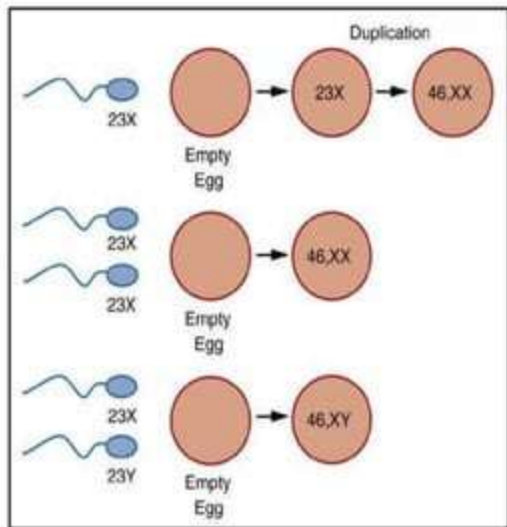
Complete hydatidiform mole

Partial hydatidiform mole

Complete Mole

- ❖ An abnormal pregnancy which consists of placental tissue only and there is no embryo in it.
- ❖ These mole most often develops when 1 or 2 sperm cells fertilize an egg cell that contains no nucleus or DNA (an “empty” egg cell). All the genetic material comes from the father's sperm cell. Therefore, there is no fetal tissue.

Complete Mole



Complete mole:

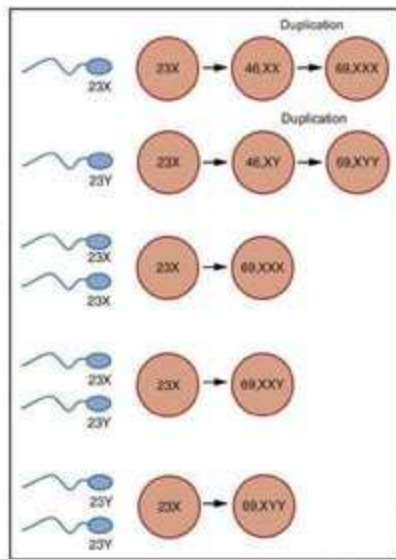


Partial Mole

- In this form the embryo or fetus coexist with placenta abnormality through it tends to die at an early cystitis.
- In abnormal parts of placenta the hyperplasia only involve syncytiotrophoblast.

Partial Mole Etiology

- 2 sperms fertilize a normal egg.
- Or a sperm that has failed to undergo meiotic division fertilize normal egg.



Clinical symptoms:

- ▶ • Symptoms of early pregnancy:- Patients history of amenorrhea usually for 4-6 months.
- ▶ • Vaginal Bleeding:- Patient complains of recurrent vaginal bleeding something there is history of brownish vaginal discharge. Bleeding usually starts is 3rd or 4th months of pregnancy.
- ▶ • Absence of Quickening:- Fetal movements are never felt except in partial mole.

Clinical Signs:

- ▶ 1. Size of uterus:- In most cases the size of uterus is excessively larger than expected for duration of amenorrhea.
- ▶ 2. Absence of uterus Contractions:- In molar pregnancy the uterus feels doughy and does not contract.
- ▶ 3. Bilateral ovarian enlargement:- In 25% cases bilateral ovarian enlargement palpable.
- ▶ 4. Absence of Foetal Part:- Foetal part not palpable and foetal heart is absent.
- ▶ 5. Pre eclampsia:- In 50% case signs of preeclampsia especially in first half of pregnancy.

Diagnosis

- ▶ • Ultrasonography: Snow storm appearance on ultrasound.
- ▶ • Beta HCG level:- HCG ideal marker for diagnosis of gestational trophoblastic disease. Hcg is produced by syncytiotrophoblast cell of placenta. In normal pregnancy its max amount is produced at 8-10 weeks and after it falls..
- ▶ • In molar pregnancy it is produced in very large amount and its serum and urine level continue to rise beyond 12 weeks of amenorrhea

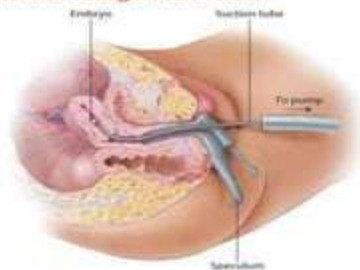
Treatment:

- ▶ • The aim of treatment is to remove trophoblastic tissue from uterus and eliminate it from other body system.

1. Suction Curettage:

Method of choice for evacuation of H mole under 16 weeks of gestation

Suction Curettage Abortion



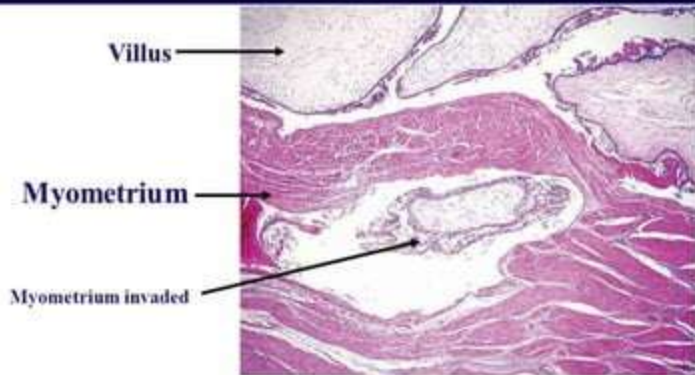
Invasive Mole:

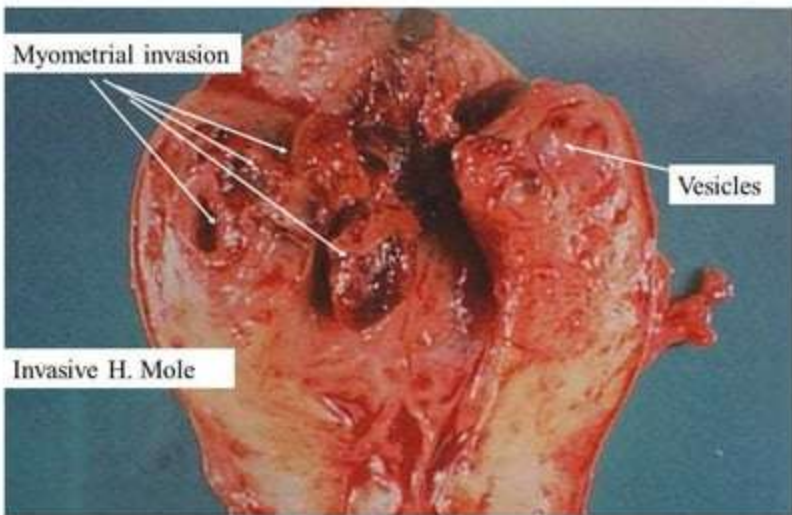
- ▶ • Its is a complication of hydatidiform mole but may rarely develop after partial mole. Invasive mole may metastasize to any part of body but commonly involves lungs.
- ▶ This retains hydropic villi, which penetrate the uterine wall deeply, possibly causing rupture and sometimes life-threatening hemorrhage.

Invasive Mole

Villus formation preserved

Trophoblast cells invade myometrium and blood vessels





Sometimes involving the peritoneum, parametrium, or vaginal vault. Originate almost always from H. mole

Choriocarcinoma:

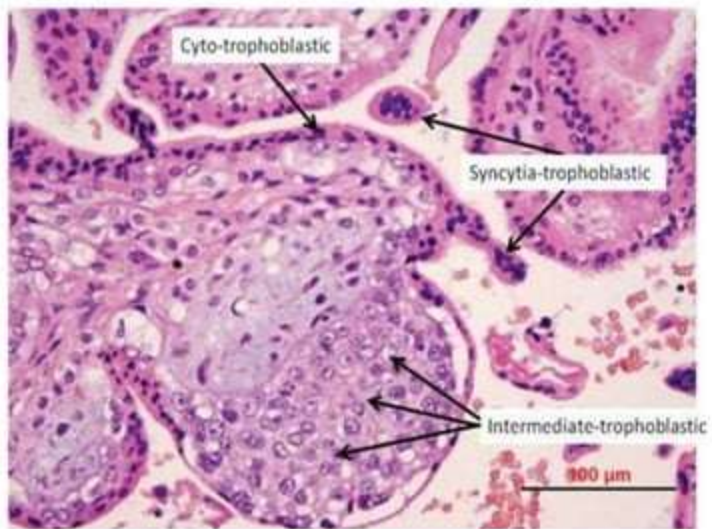
- ▶ It is rapidly progressive , highly malignant tumor which originates from chorionic epithelium.
- ▶ They usually appear as hemorrhagic, necrotic uterine masses. Sometimes the necrosis is so extensive that little viable tumor remains.
- ▶ In contrast with hydatidiform moles and invasive moles,chorionic villi are not formed;instead, the tumor is composed of anaplastic cuboidal cytotrophoblasts and syncytiotrophoblasts

- Highly hemorrhagic appearance due to gestational choriocarcinoma.



Placental Site Trophoblastic Tumor

- ▶ Placental site trophoblastic tumor is a form of gestational trophoblastic disease, which is thought to arise from intermediate trophoblast. It may secrete human placental lactogen, and result in a false-positive pregnancy test.
- ▶ These uncommon diploid tumors, often have XX in karyotype, typically arise a few months after pregnancy



Clinical features :

- **Vaginal bleeding:** intermittent vaginal bleeding
- **Vaginal discharge:** brownish vaginal discharge

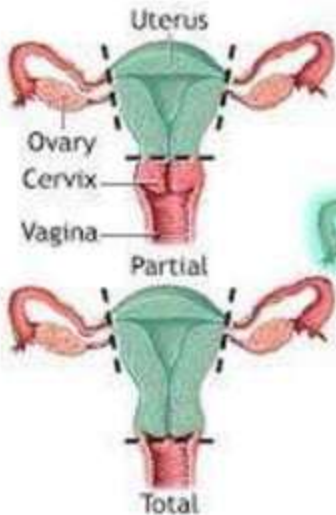
Other weakness:

- Cough
- Neurological symptoms
- **Abdominal or vaginal mass**
- **Amenorrhea**

Treatment



- **Chemotherapy**
Surgery: Hysterectomy



A hysterectomy removes the uterus and may also remove the cervix (total) and ovaries, tubes, lymph nodes and upper vagina (radical)



THANKS

