Gestational trophoblastic disease(vesicular “hydatiform”mole)

Definition:
it is a Benign tumor of trophoblastic cell characterized by trophoblastic proliferation and hydropic degeneration of chorionic villi.

Types of GTD:

Benign	**Malignant**	
Hydatidiform mole (complete or partial)	Metastatic -Choriocarcinoma	non –metastatic - Persistent/invasive gestational trophoblastic neoplasia (GTN) - placental site trophoblastic tumors

RISK FACTORS
- Extremes of age(>35…<20)
- Assisted reproductive technology has enhanced the fertility potential of older women
- History of previous GTD
- Current smoking (>15 cigarettes per day)
- Maternal blood type AB, A, or B.
- History of infertility, nulliparity.
- Use of oral contraceptives (however, oral contraceptives do not increase the risk of developing postmolar GTD)

CLINICAL MANIFESTATIONS
-Vaginal bleeding
-Enlarged uterus
-Pelvic pressure or pain
-Theca lutein cysts
-Anemia
-Hyperemesis gravidarum
-Hyperthyroidism
-Preeclampsia before 20 weeks of gestation
-Vaginal passage of hydropic vesicles **pathognomic „ due to hydroid changes in placental villi**

Complete hydatidiform mole

A complete mole is a result of fertilization of an empty ovum by two sperms or a single sperm that duplicates, resulting in a 46 XX or 46 XY karyotype.

Partial hydatidiform mole

A partial mole is the result of fertilization of a haploid ovum by two sperm or duplication of one sperm, resulting in a triploid karyotype (69 XXY, 69 XXX, 69 XYY),Partial moles are the only type of GTD that are associated with the presence of a fetus, and fetal cardiac activity may be detected.

Feature	Complete mole –Diploid	Partial mole-Triploid
Incidence	1/1500 pregnancies	1/750 pregnancies
Karyotype	Diploid: 46,XX(less than 15% are 46,XY)	Triploid: 69,XXX, 69,XXY(rarely 69,XYYA)
Embryofetal tissue	Typically absence	Present
Uterine size	Often larger for dates	Often smaller for dates
HCG level	Marked elevation	lower than those observed with a complete mole.
Complication due to increase in HCG level	-ovarian enlargement due to theca lutein cysts; -hyperemesis gravidarum -early development of preeclampsia (before 20 weeks of gestation) -hyperthyroidism	Infrequent
Theca lutein cyst	Present in </= 25%	Rare
Choriocarcinoma	3%	0.1%
Trophoblastic atypia	Often present	Infrequent

Complications

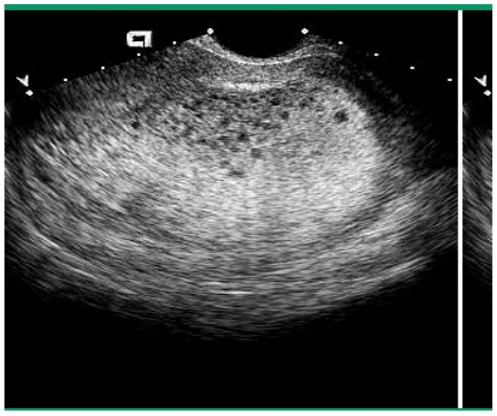
General	Local
PIH<20 weeeks	Hemorrhage ,infections
Hyperemesis gravidarum	Perforations
Thyrotoxicocsis	Malignancy
PE and DIC	Recurrence (1-2%)

Investigations

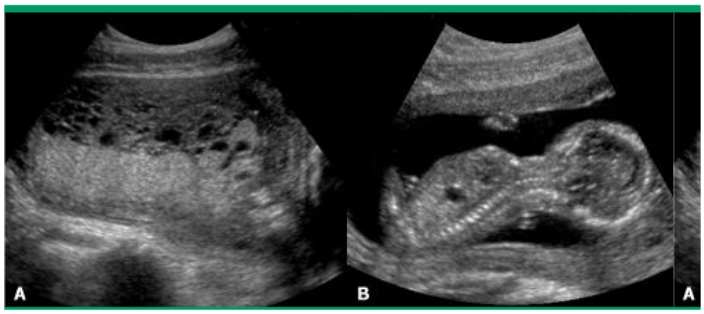
1-Ultrasound (the best):

- **Complete mole:**
  - **Snow storm** appearance.
  - Theca lutein cysts in ovary
  - The absence of an embryo or fetus.
- **Partial mole**:
  - Swiss cheese pattern.
  - Theca lutein cysts are usually absent
  - Fetus is present, may be viable, and is often growth restricted

Sonogram of a complete hydatidiform mole



Partial molar pregnancy



2-B-hCC +ve in high dilutions > 100.000 (more important for follow up)

3-radiography: -Plain X-ray: no fetal skeleton

- Chest X-ray: for metastasis

Treatment

Benign :

Resuscitation +

1- Suction evacuation

- Don't forget : . anti-D if Rh-ve

. specimen is sent for histopathology

2-Hysterectomy

- In old patients(>40yeaIS)who have completed their families to decrease risk of choriocarcinoma (35% at this age)
- Hysterectomy doesn't prevent metastasis (follow up by B-hCG)

- Theca lutein cysts are not remove surgically except if complication occur (e.g. torsion or rupture)

Malignant

chemotherapy >>methotrexate

Follow up :

- By B-subunit of hCG:
  - Every week .. till -ve for 3 successive times (<5 mIU irnl)
  - Every month + for l-2 years
  - **Pregnancy is avoided for 1-2 years**
    - To decrease recurrence & choriocarcinoma