GESTATIONAL TROPHOBLASTIC NEOPLASIA

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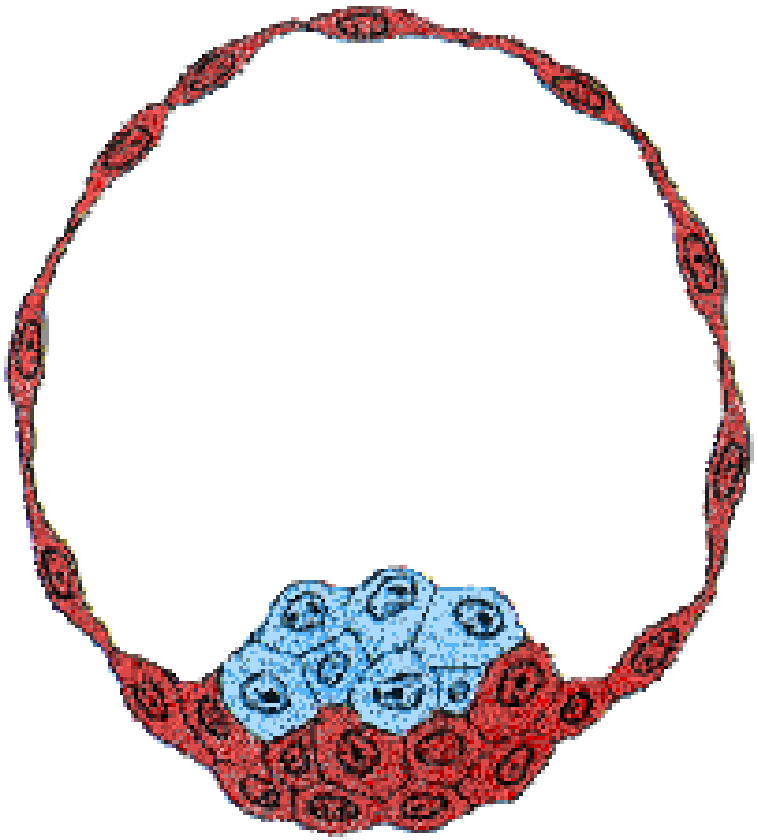
GTN

- Rare tumours of trophoblastic origin
- Geographical distribution
  - 2 / 1000 births in Japan
  - 0.6 – 1.1 / 1000 births in N.America

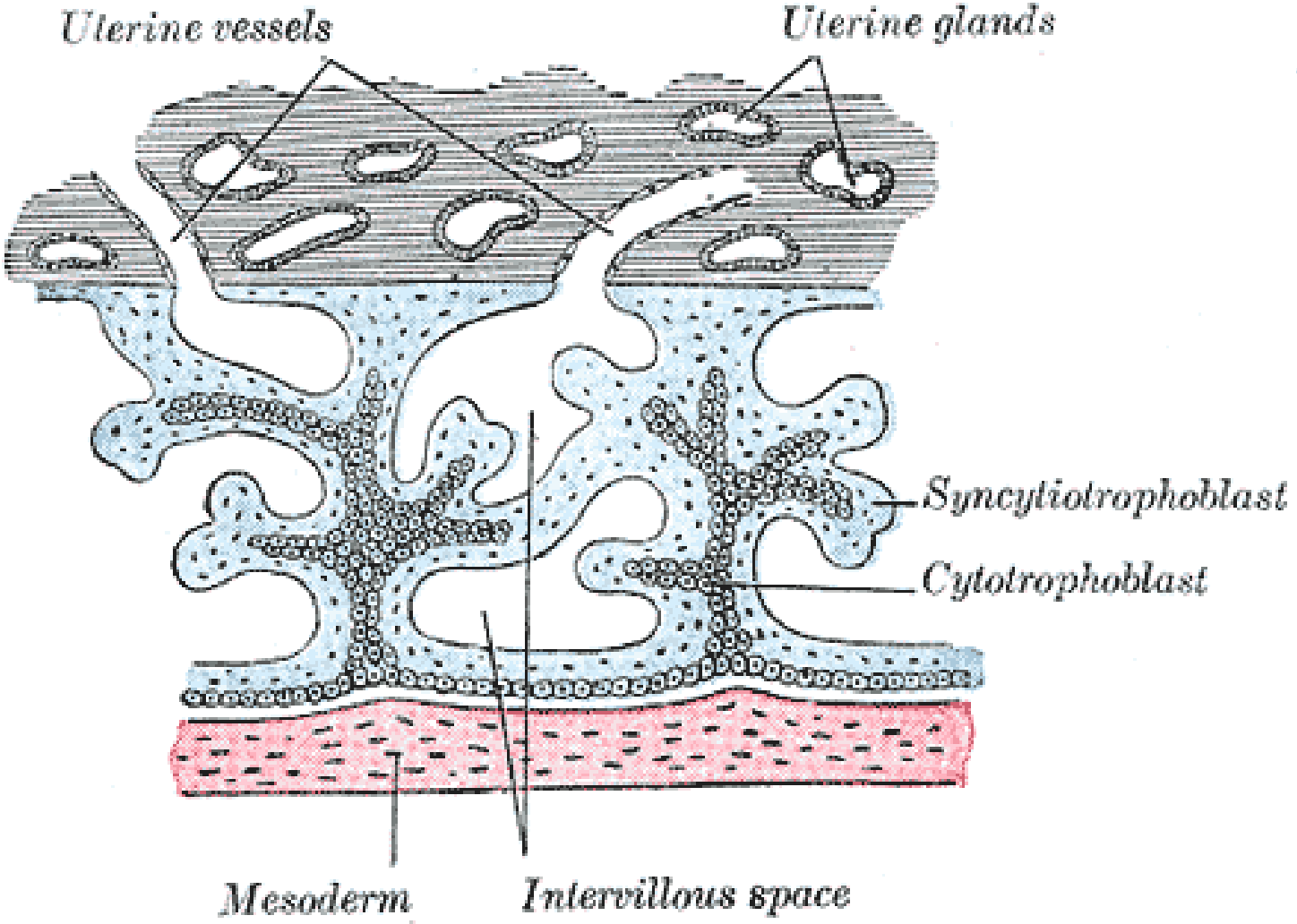
CLASIFICATION

- ✓ **Hydatidiform mole**
  - **Complete**
  - **Partial**
- ✓ **Invasive mole**
- ✓ **Choriocarcinoma**
- ✓ Placental site trophoblastic tumour
- ✓ Epithelioid trophoblastic tumour
- ✓ Trophoblastic lesions
  - Exaggerated placental site
  - Placental site nodule or plague
- ✓ Unclassified trophoblastic lesions

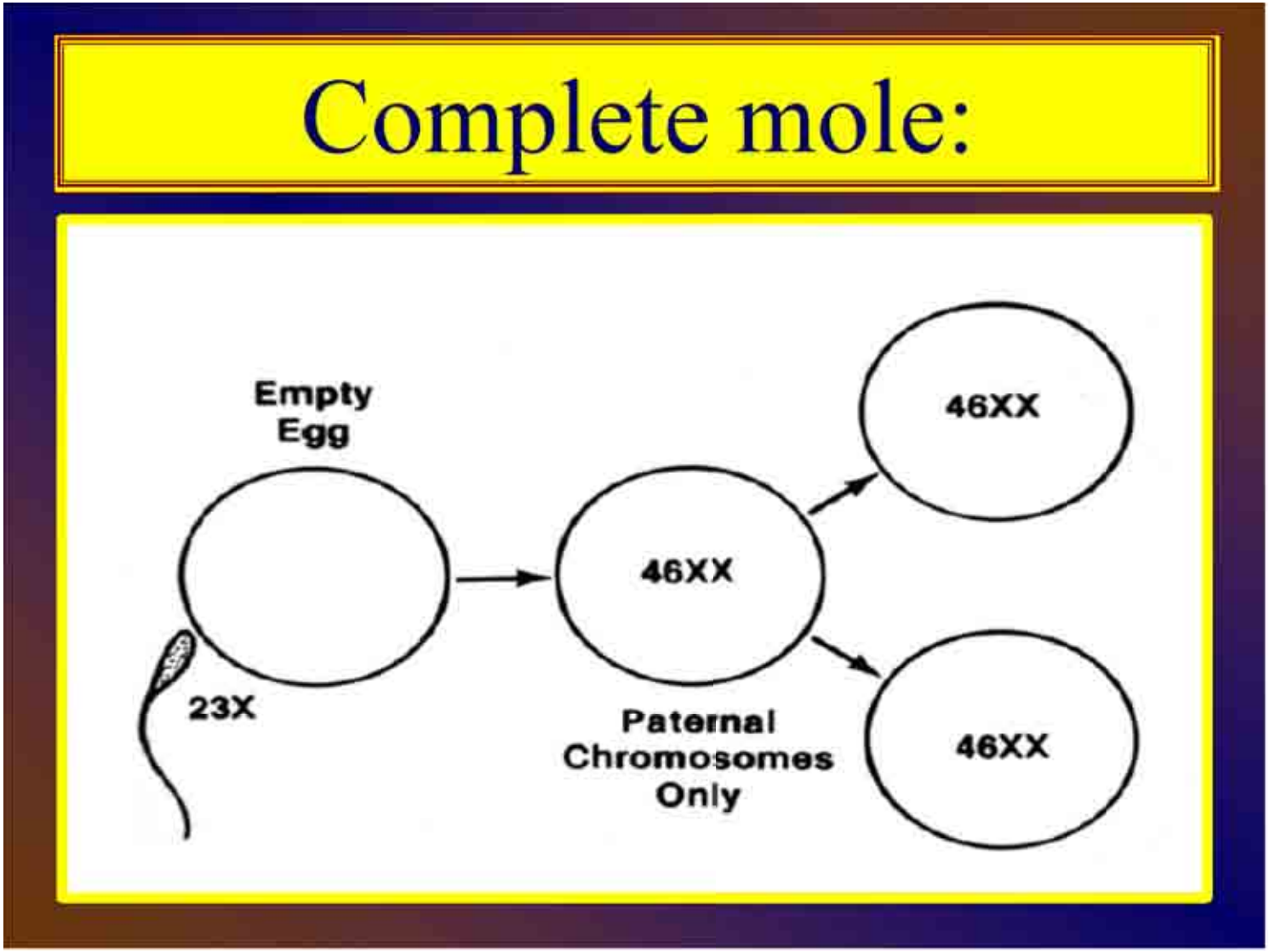
BLASTOCYST



IMPLANTATION



COMPLETE MOLE



COMPLETE MOLE

- Macroscopically
  - Clusters of vesicles with variable dimension
    "bunch of grapes"

- Microscopically
  - Markedly distended villi
  - Complete absence of fetal stromal blood vessels
  - Variable degree of trophoblastic proliferation

COMPLETE MOLE

A complete mole is a mole without an embryo or foetus

COMPLETE MOLE

- Risk factors
  - Age - 6X risk < 15 years
    400x risk > 50 years
  - Previous molar pregnancy
    - » 1-2% risk after first molar preg (0.1% in general population)
    - » 15-28% after second molar pregnancy
  - Ethnicity – SE Asia
  - Blood group B

COMPLETE MOLE

- **Vaginal bleeding**
- **Excessive uterine size**
- **Exaggerated signs / symptoms of pregnancy**
- Early onset pre-eclampsia
- Thyrotoxicosis
- Lower abdominal pain

COMPLETE MOLE

- Special investigations
  - **Ultrasound**
    - » Grape like vesicles
    - » “Snow storm” appearance
  - Full blood count
  - Renal and liver function tests
  - Thyroid function tests- Thyrotoxicosis
  - Crossmatch, Rh and RPR
  - CXR
  - **Quantitative *B*-HCG**

COMPLETE MOLE

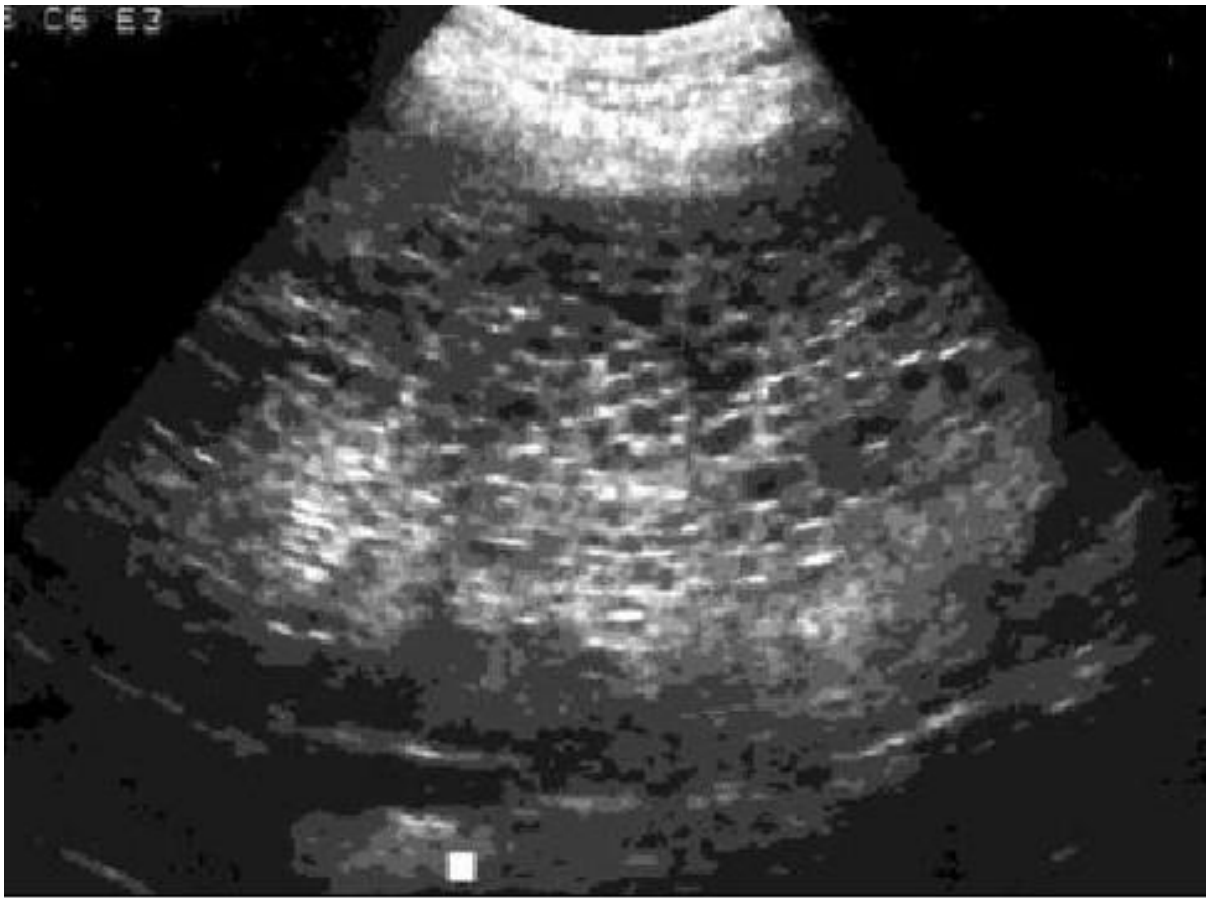
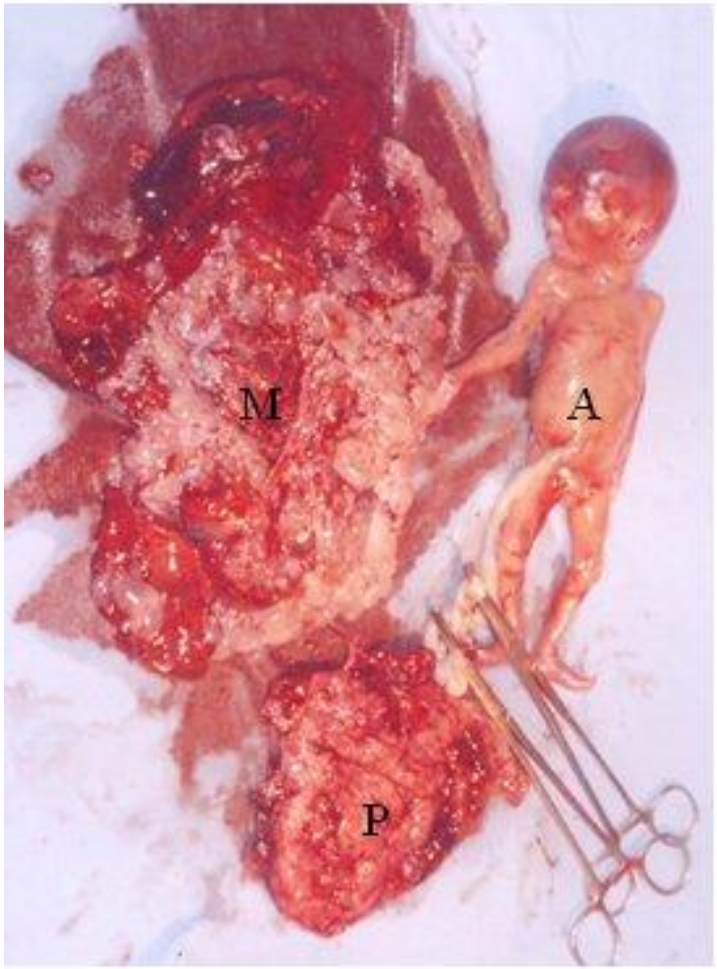
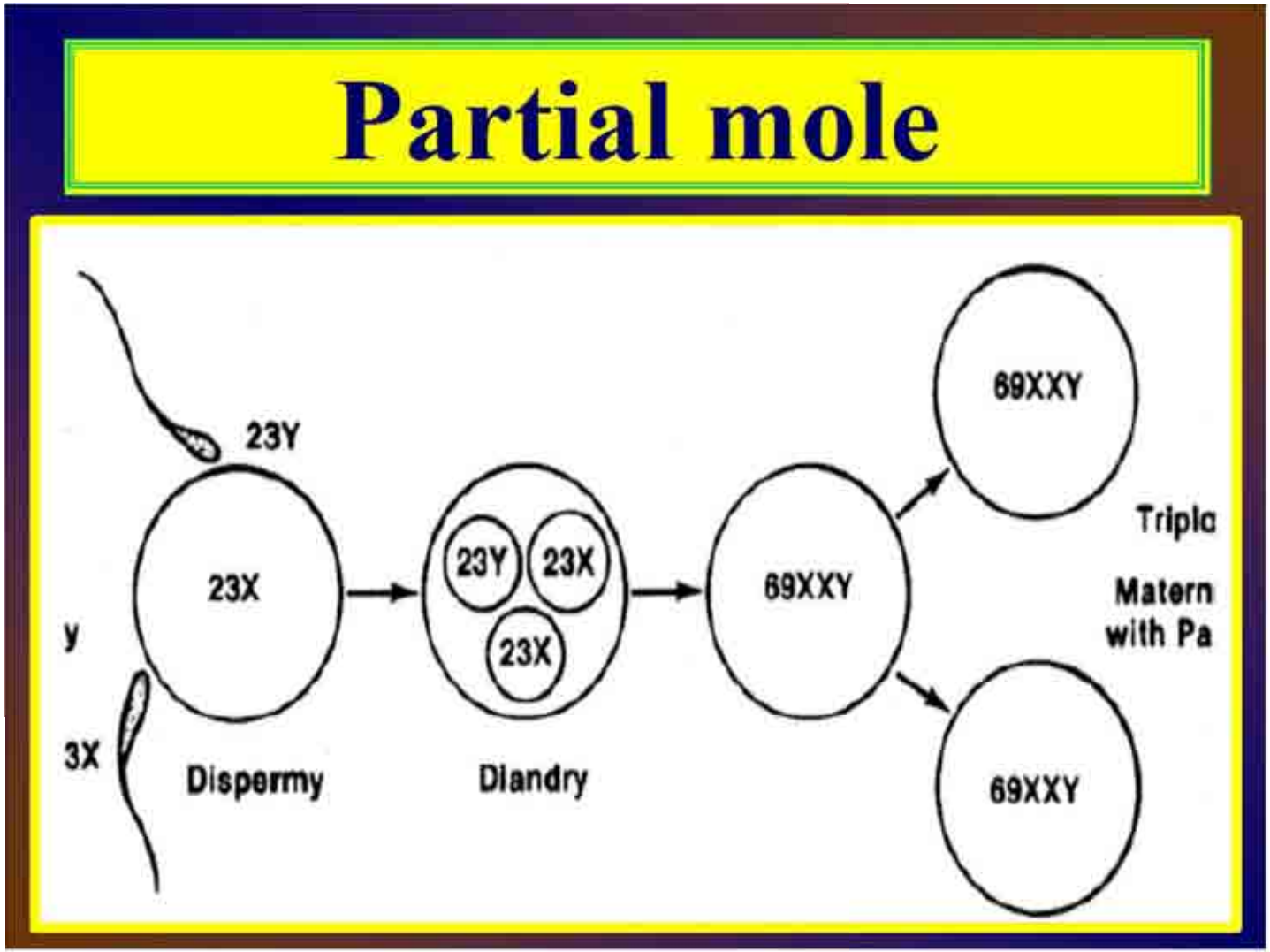


Figure 1: Trans abdominal sonogram showing the snow storm appearance of a posterior placenta, representing molar changes. Foetal abdomen is also seen in axial plane.

COMPLETE MOLE



PARTIAL MOLE

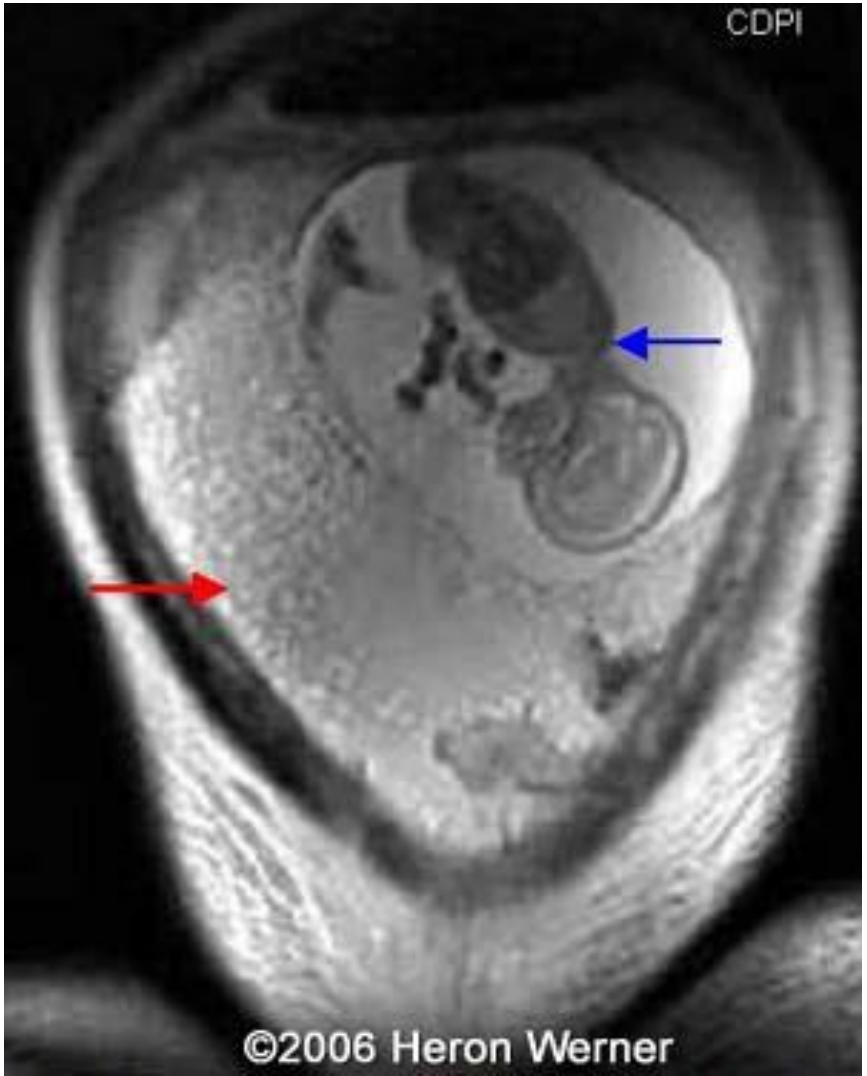


PARTIAL MOLE

- Macroscopically
  - Variable proportions of vesicles
  - Identifiable fetus or fetal parts

- Microscopically
  - Mixture of hydropic and normal sized villi
  - Trophoblastic inclusions
  - Fetal development or fetal blood vessels

PARTIAL MOLE



COMPLETE vs PARTIAL

- Cluster of vessicles/grape-like
- Absent fetal tissue
- Diffuse swelling of villi
- Enlarged villi show a central cistern pattern
- Variable trophoblastic proliferation
- Absent foetal blood ves
- 46 XX (90%)

- Variable portions of vesicles
- Fetal tissue present
- Focal swelling of villi
- Swollen villi have no central cistern pattern
- Trophoblastic inclusion
- Present foetal blood ves
- Triploid 69 XXX/XXY (90%)

MANAGEMENT

- Suction curettage
  - Haemorrhage
  - Perforation
- Hysterectomy
- **Medical termination should be avoided**

FOLLOW UP

- Follow up quantitative *B*-HCG
  - Should be negative within 80 days
  - Weekly till negative x 3
  - Monthly till negative x 6 months

- CONTRACEPTION
  - No conception in the first 12 months
  - Injectable or combined oral contraceptives

FURTHER TREATMENT i.e. GTN Dx if the following are present

- Plateau in HCG levels over 1,7,14,21 days
- Rise in HCG levels over 1,7,14 days
- hCG elevated for a period greater than 6 months
- Histological diagnosis of Choriocarcinoma

STAGING

- I - confined to the uterus
- II - extra uterine, limited to genital organs
- III - lung mets
- IV - all other mets

RISK SCORE

- Age
- Antecedent pregnancy
- Interval from index pregnancy
- Pre treatment hCG levels
- Tumour size
- Metastatic sites
- Number of metastasis
- Previous failed chemotherapy

RISK SCORE

- Low risk - <6
  - Single agent chemotherapy
  - Methotrexate
- High risk - >7
  - Combination chemotherapy

CHORIOCARCINOMA

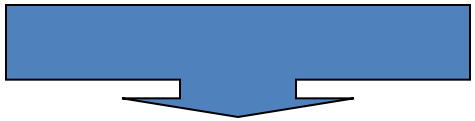
- Highly malignant
- Arise from any type of trophoblastic tissue
- Sheets of anaplastic cyto/syncitiotrophoblasts
- **Absent villi**
- 50% follow molar pregnancy
- 25% follow an abortion

CHORIOCARCINOMA

- Vaginal bleeding
  - Persistent bleeding following an evacuation
  - Suspect if
    - » Multiple evacuations
    - » Persistently elevated *B*-HCG
- Metastasis
  - Lungs – 50%
  - Vagina – 30 –40%
  - Liver
  - Brain

CHORIOCARCINOMA

- Chemotherapy
  - –EMA-Co protocol



» Etoposide, Methotrexate, Actinomycin-D, Cyclophosphamide, Onvovin (Vincristine)

- Hysterectomy

INVASIVE MOLE

- Myometrial infiltration
- Extra uterine disease
- *B*-HCG plateuing or rising following an evacuation
- Chemotherapy
- Hysterectomy

Ke a leboga !!!!!!!!!