MALIGNANT TROPHOBLASTIC DISEASE

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Epidemiology

• 25% of all GTD are malignant

• 75% of them are invasive / persistent mole
• 24-25% are choriocarcinoma
• Less than 1% for PSTT
$\beta$ HCG Regression Curve Following Evacuation of Molar Pregnancy (Hydatidiform Mole)

$\beta$ HCG (m I.U./ml.) vs Weeks Post Evacuation

- Normal
- Mean
- 2 Std. Dev.
Invasive Mole

- Is usually a locally invasive tumor >> Rarely associated with mets. (4%)

- Almost always follow the evacuation of a molar pregnancy (complete more than partial) >>> Persistent increase in hCG

- Clinical presentation:
  1) Hx of molar pregnancy w/ hCG rise or plateau on follow up
  2) Abnormal uterine bleeding!! (not specific)

- P/E >> Usually normal
• The lesion may penetrate the entire myometrium, rupture through the uterus and result in hemorrhage into the broad ligament or peritoneal cavity.

• Dx: Based on hCG levels and pelvic U/S
Tx: according to risk assessment by FIGO score

- **Tx:** Chemotherapy
  - Low risk: Methotrexate alone
  - High risk: Methotrexate, actinomycin D, and etoposide

- **Follow up**
  - Continue monitoring w/ serial hCG’s every week until normal for 3 consecutive weeks.
  - Then monthly hCG’s for one year.

- **Contraception**
  - Barrier contraception should be used until hCG’s are normalized
  - Hormonal contraception may be used until normalized for at least one year

- Pt should avoid pregnancy for one year after finishing chemotherapy
CHORIOCARCINOMA

• Frank malignant form ,, highly associated with mets.

• Trophoblastic disease following a normal pregnancy is always choriocarcinoma

• About one-half of patients with gestational choriocarcinoma have had a preceding molar pregnancy

• In the remaining patients, the disease is preceded by abortion, ectopic pregnancy, or normal pregnancy.
Choriocarcinoma: Ultrasound reveals a hyperechoic mass showing hypervascularity on color Doppler.
SYMPTOMS

• Most patients with choriocarcinoma present with symptoms of metastatic disease

• **Vaginal bleeding** is a common symptom of uterine choriocarcinoma or vaginal metastasis.

• **Amenorrhea** Because of the gonadotropin excretion

• Lung mets >> **Hemoptysis, cough, or dyspnea**

• CNS Mets. >> **headaches, dizziness, symptoms of increased ICP**.

• GI Mets. >> **Rectal bleeding**
SIGNS

- Uterine enlargement seen on examination with a speculum.
- If tumor mets. to vagina >> present with firm ‘ discolored mass.
- Occasionally, the patient presents with an acute abdomen because of rupture of the uterus, liver, or theca lutein cyst
- Neurologic signs, such as partial weakness or paralysis, dysphasia or unreactive pupils
Dx: the best **first test** when suspecting Choriocarcinoma is HCG level. This is followed by pelvic U/S and appropriate imaging.

- **Tx:** Chemotherapy
  - Stage I: Methotrexate
  - Stages II-IV: Methotrexate, actinomycin D, and etoposide

- **Follow up**
  - Continue monitoring w/ serial hCG’s every week until normal for 3 consecutive weeks.
  - Then monthly hCG’s for one year.

- Same recommendations for contraception as persistent/invasive moles
Metastatic disease

- 4% patients after treatment of complete molar pregnancy

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<tr>
<th>Most common sites are</th>
<th>Lungs &gt;&gt; 80% (most common site)</th>
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<tbody>
<tr>
<td></td>
<td>vagina &gt;&gt; 30%, pelvis &gt;&gt; 20%</td>
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<td>Brain &gt;&gt; 10%, liver &gt;&gt; 10%</td>
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<td>have the worst prognosis</td>
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<td>Bowel, kidney &amp; spleen &gt;&gt; 5%</td>
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<td>Others &gt;&gt; 5%</td>
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- **Lungs are #1 site for** malignant GTN Mets. „„ when pelvic exam and chest x-ray are negative, metastases are uncommon.
Staging

• Stage 1: confined to uterus
• Stage 2: metastases to pelvis, vagina
• Stage 3: metastases to lung
• Stage 4: distant metastases (brain, liver, etc)
• Thank you