Benign Focal Hepatic Lesions:

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Focal Hepatic Lesions

1. Hepatic Cyst
2. Hepatic Hemangiomas
3. Benign Focal Hepatic Lesions
   - Focal Nodular Hyperplasia
   - Adenoma
4. Hepatic Abscess
Case #1

- 56yo BM with painless jaundice
- PMHx: Obesity, DM2, CRI, polycystic kidney dz
- Exam: Liver palpable below rt costal margin
- US: Polycystic liver-kidney disease, cannot readily visualize bile ducts
- Dominant cyst 1800 cc aspirated. Jaundice transiently resolved-recurred
Hepatic Cysts

Postop CT
MRI T2

ERCP

Postop ERCP
MRI Venous Phase
Hepatic Cysts

- Simple Cysts: 5% Incidence F>>M
- Polycystic Liver Disease
- Neoplastic Cysts
  - Biliary Cystadenoma/ Cystadenocarcinoma
- Diagnosis: US, CT Scan, MRI
- Treatment
  - Lap. fenestration of symptomatic simple cysts
  - Resection of neoplastic cysts

Symptomatic Giant
Simple Hepatic Cyst
Symptomatic Giant Simple Hepatic Cyst
Adult Polycystic Liver Disease

- More common in women.
- May or may not be associated with polycystic kidney disease.
- Microscopically: cysts are lined with simple biliary epithelium without communication to the biliary tract.
Adult Polycystic Liver Disease

- **Symptoms**
  - Usually asymptomatic.
  - If symptomatic, symptoms are usually related to mass effect.

- **Complications**
  - Common: infection or hemorrhage into cyst.
  - Rare: rupture, portal hypertension, vena cava compression, conversion to malignancy, or hepatic insufficiency.
# Adult Polycystic Liver Disease

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Number</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Large (10 cm)</td>
<td>Few</td>
<td>Superficial</td>
</tr>
<tr>
<td>Type II</td>
<td>Medium sized (5-7 cm)</td>
<td>Multiple</td>
<td>Scattered</td>
</tr>
<tr>
<td>Type III</td>
<td>Small-to-medium sized (&lt;5 cm)</td>
<td>Multiple</td>
<td>Scattered</td>
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</tbody>
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Polycystic Liver Disease

- **Treatment**
  - Type I and II
    - Cystic wall resection.
    - Some cases may require hepatic resection.
  - Type III
    - Partial hepatectomy if two adjacent liver segments can be spared.
    - Some cases may require liver transplantation.
Case #2

- 42yo WF with progressive RUQ fullness/discomfort, especially when bending over
- PMHx: none
- Exam: Liver palpable below rt costal margin
- Labs: AFP, CEA, CA19-9 wnl
- Dx with 9cm cavernous hemangioma 7 years ago. Progressive increase to 16cm correlating with symptoms.
Hepatic Hemangioma

CT Arterial Phase

CT Venous Phase
Hepatic Hemangioma

CT

MRI
Hepatic Hemangioma

- 2-7% Incidence F>>M; 1/3 multiple
- >5cm “Giant Hemangioma”
- Change in size common
- Symptoms: fullness, discomfort, early satiety
- Diagnosis: MRI > CT, US, tagged RBC scan
- Treatment
  - Observation
  - Enucleate Giant Symptomatic Hemangioma

Hepatic Hemangioma

- Kasabach-Merritt Syndrome
  - Rare complication.
  - Coagulopathy
    - Intervascular coagulation, clotting, and fibrinolysis in the hemangioma.
    - Can become systemic.
Case #3

- 29yo HF Air Force complains of RUQ softball-sized mass that moves/becomes uncomfortable during physical activity.
- PMHx: none (not on OCP)
- Exam: RUQ palpable mass
- Labs: AFP, CEA, CA 19-9 wnl
- Imaging
  - US: 12cm solid mass
  - CT: Adenoma vs. FNH
  - Radionucleotide study: No defect
  - MRI: central scar
Benign Focal Hepatic Lesions

Focal Nodular Hyperplasia
Focal Nodular Hyperplasia

- Hyperplastic response to a congenital arterial malformation.
- Macroscopically: Well-circumscribed, nonencapsulated, globular and lobulated tumor.
- Microscopically: benign-appearing hepatocytes with fibrous septae radiating from a central scar.
Benign Focal Hepatic Lesions

Focal Nodular Hyperplasia

- Incidence?
- F>>M ?hormonal influence?
- Asymptomatic unless large
- Symptoms: fullness, discomfort, early satiety
- Diagnosis: MRI (EOVIST), CT

Treatment
- Observation
- Embolization of symptomatic lesions