Management of Hepatic Cysts

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Case Presentation

- **CC:** RUQ pain
- **HPI:** 77yr old AAF presents with 6month history of dull constant non radiating RUQ abdominal pain. Denies any history of fever, jaundice, weight loss and obstructive symptoms.
- **PSH:** s/p Laparoscopic fenestration of giant hepatic cysts (December 2010)
- **PMH:** HTN
- **Meds:** Procardia, Bisoprolol   **Allergy:** NKDA
- **Social:** Denies tobacco, ETOH/drugs
Case Presentation

- Physical Exam
  - T 99  HR 54  BP 128/67
  - Abd- soft, fullness RUQ, mild focal tenderness
  - Chest- CTA bilat  CVS-S1S2 no murmur
- Labs
  - WBC 10.4, H/H 12.2/35.5, Platelets 250
  - BMP- 135/3.8/105/26/10/0.7/183
  - LFTs- 7.3/3.9/56/47/73/0.7
  - Coagulation profile-WNL
Surgery

- Laparoscopic fenestration and drainage of multiple giant hepatic cysts with excision of cyst wall
Hospital course

- POD#1- Tolerated diet.
- POD#3- Discharged home.
Pathology

- Simple cysts lined by flattened epithelium.
Management of cystic diseases of the liver

- Non parasitic cystic masses in the liver with prevalence of 5%.
- Frequently incidental findings on imaging studies.
- Usually asymptomatic and seen more in adult women.
- Lined by single layer of cuboidal or columnar epithelium resembling biliary epithelial cells with no malignant potential.
- Differential diagnosis includes neoplastic cysts (cystadenomas) which have malignant potential.
# Classification of hepatic cysts

<table>
<thead>
<tr>
<th>True cysts</th>
<th>False cysts</th>
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<tbody>
<tr>
<td><strong>Congenital</strong></td>
<td>Hepatic abscess</td>
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<tr>
<td>Simple cysts</td>
<td>Posttraumatic hematoma</td>
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<tr>
<td>Adult Polycystic liver disease</td>
<td>Biloma</td>
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<tr>
<td>Bile duct related-Caroli disease</td>
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<tr>
<td><strong>Acquired</strong></td>
<td></td>
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<tr>
<td>Primary neoplastic- cystadenoma</td>
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<tr>
<td>Secondary neoplastic-metastasis from solid organs</td>
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</table>
Clinical Presentation

- Abdominal pain
- Abdominal fullness/distension
- Early satiety, nausea and vomiting
- Spontaneous rupture, infection and biliary compression with obstructive jaundice
**Diagnosis**

**Simple hepatic cyst**
- Unilocular
- Thin regular wall
- No nodules
- Thin, straw-colored fluid
- Absent mucin
- Absent tumor markers

**Neoplastic hepatic cyst**
- Multilocular
- Thick irregular wall
- Mural nodules
- Thick green/brown fluid
- Mucin in fluid
- Elevated CEA/CA19-9
Treatment of Simple hepatic cysts

**Percutaneous aspiration**

- Temporary relief of symptoms
- Recurrence rate about 100%
- Repeated aspirations may result in cyst infection
- Aspiration with sclerosants (e.g., ethanol, minocycline) provides relief in about 80-90% of patients
- Surgically unfit patients.
Treatment of Simple hepatic cysts

**Cyst wall resection**

- Fenestration/Unroofing/Marsupialization
- Laparoscopic or open approach
- Lowest recurrence rate (5-10%)
- Cyst wall excised at junction with hepatic parenchyma
- Ablation of cyst wall lining to minimize recurrences
- Presence of bile in drainage fluid necessitates isolation of bile leak and ligation
Treatment of hepatic cysts

**Enucleation/Cystectomy**

- Neoplastic cysts or recurrent simple hepatic cysts can be managed by enucleation.
- Dissection within the plane of the pseudocapsule allows separation of the cyst from the liver parenchyma.
- No risk of recurrence when done appropriately.
- Associated with minimal blood loss and fewer complications when compared to hepatic resection.
Conclusions

- Simple hepatic cysts are common benign mass-occupying lesions in the liver.
- Symptomatic hepatic cysts can be treated by cyst wall excision or enucleation.
- This can be performed successfully with negligible morbidity and mortality.