An Unusual Case of Biliary Hamartoma

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Biliary Hamartoma (von Meyenburg complexes (VMC))

• First defined in 1918 by Swiss pathologist Hanns von Meyenburg¹

• Rare genetic abnormality

• Collections of dilated small ducts throughout liver (may or may not contain bile within), embedded in fibrous tissue. These are not contiguous with the duct

• Alteration of normal intrahepatic bile duct embryologic development (ductal plate malformation such as Caroli’s & polycystic liver)²
Spectrum of congenital fibrocystic liver disease³
Biliary Hamartoma (von Meyenburg Complex)

• Commonly asymptomatic⁴

• Historically these were detected at autopsy, but with more sophisticated imaging these are now incidental findings⁵

• Thought a generally benign process, however there is potential to develop to intrahepatic cholangiocarcinoma⁶

• Ultrasound & CT not specific for VMC – MRI gold standard⁴
Typical Ultrasound Appearances – Difficult!

**Size & Shape**
- Generally multiple
- Small (<1.5cm); rounded

**Echogenicity**
- Echogenic to surrounding parenchyma

**Artefacts**
- Ring down artefact posterior to the mass\(^4\)
Case Background

- 71 year old female – GP referral
- epigastric pain, normal LFTS, bloating

- Known diverticular disease, cholecystectomy
- Previous CT 2011: no liver abnormality

- **Imaging protocol**
  - Curvilinear transducer with frequency range 1-5Mhz
  - Standard abdomen protocol
Ultrasound Imaging
Ultrasound Imaging
Ultrasound Imaging
Ultrasound Imaging
Ultrasound Findings

Report: hyperechoic foci with ring down artefact throughout the liver. No mass effect, no increased vascularity.

Differentials?
Hepatic Metastasis
Coarsened Liver Echotexture
Acute Hepatitis
Pneumobilia
Comparisons
Further Investigation

- On the basis of the ultrasound report the patient was referred for CT abdomen/pelvis with contrast

- The CT reported

  - *No significant hepatic abnormality*

- N.B – MRI reference investigation.
CT from Case
CT – positive for biliary hamartoma
MRI – positive for biliary hamartoma
Clinical Implications/ Management

• A further abdominal ultrasound was organised for 6 months after the initial scan for assessment of interval change and/or growth

• The ultrasound showed essentially static appearances.
• Consultant radiologist review of second scan.
  • Agreement
  • In the absence of change, a diagnosis of biliary hamartoma was accepted and the patient discharged form radiological follow up
  • 1 Year later further epigastric pain CT: no liver abnormality detected
Summary

• Common things are common………..except when they are not!
• Be aware of artefacts and use to guide judgement
References


References

