

Liver

Showstoppers

Case 1.

History

- 36 year old female, previously fit & well.
- Presenting complaint: Back pain 8 months, abdominal pain 6 months, heavy menses+++
- GP requested US abdomen.
- Blood showed iron deficiency anaemia, but remaining tests including LFTs & NILS within normal limits.

Ultrasound



62mm liver cyst with irregular contours and containing debris and solid nodules, features concerning for malignant lesion

CT Abdomen



Large cystic solid tumour segment 7/6, 7.7cm in maximum dimension, solid enhancing projections in wall. Abuts diaphragm at superior aspect of lesion. Appearances of a malignant liver lesion ?cystadenocarcinoma

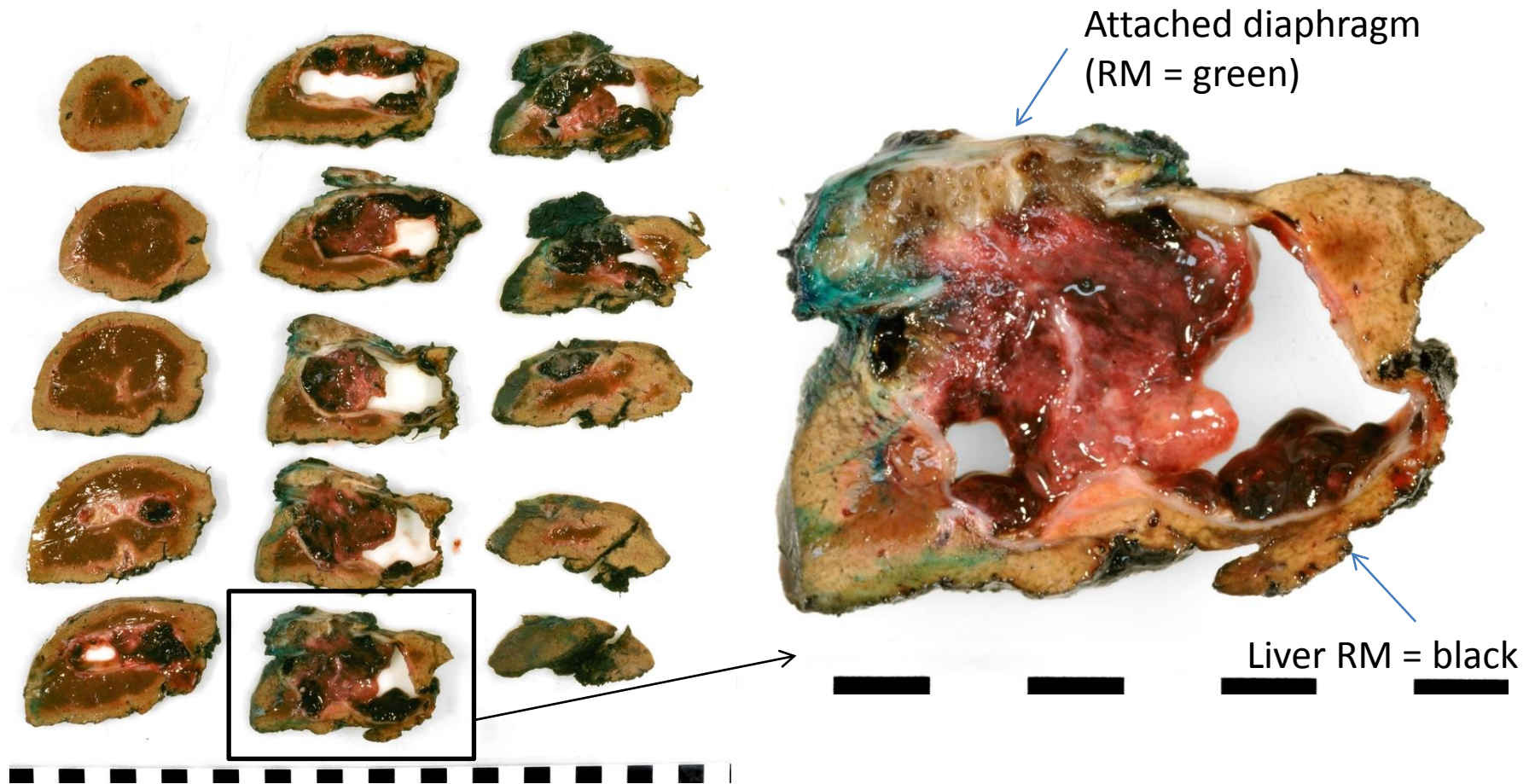
MDT Discussion

- Features concerning for malignancy on imaging
 - ?Cystadenoma ?Cystadenocarcinoma
 - ?Haemorrhage into simple cyst
- Plan: Resection.

Operation

- Findings: 8cm liver cyst segment 6/7.
- Intraoperative ultrasound showed cyst invading diaphragm.
- Radical excision & partial resection of diaphragm.

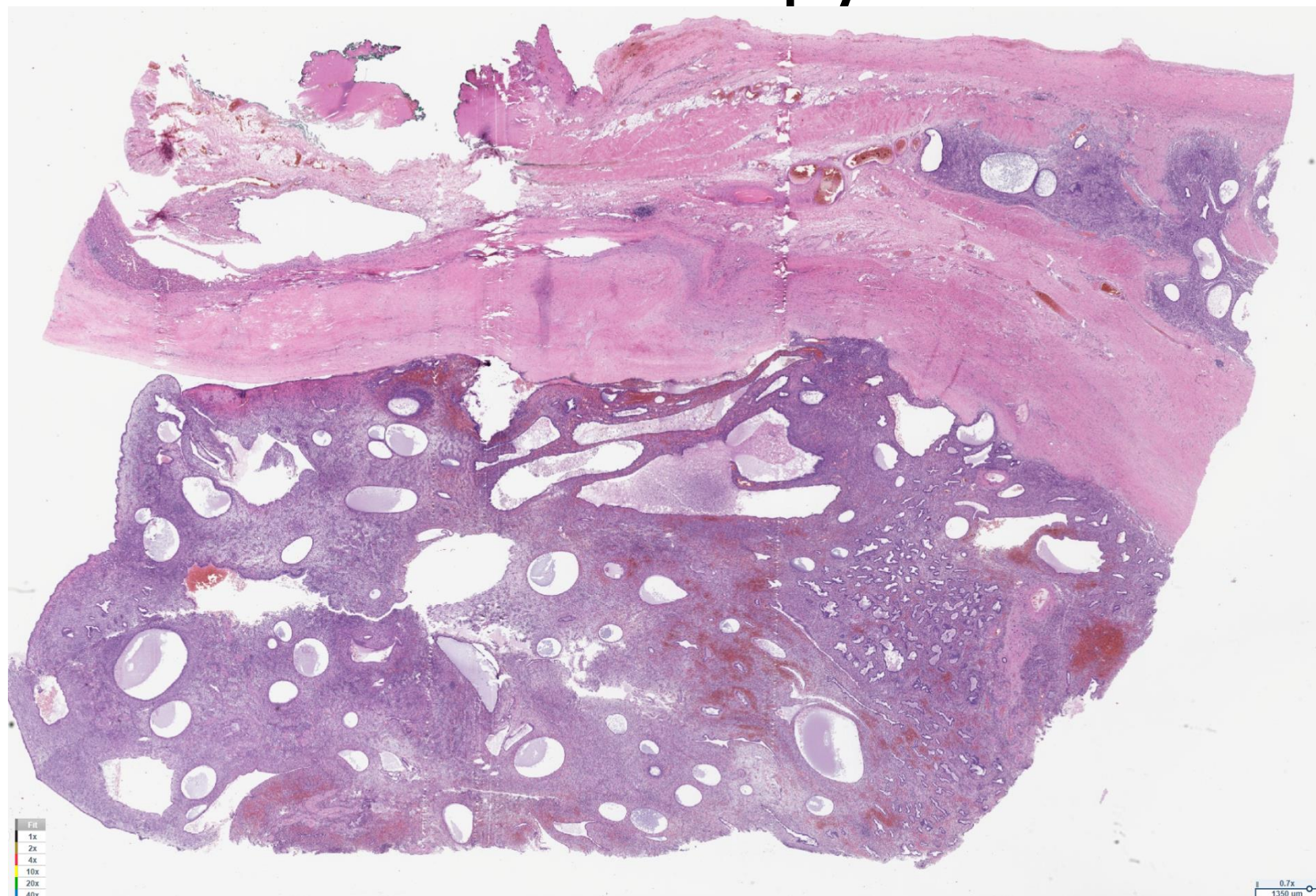
Macroscopy



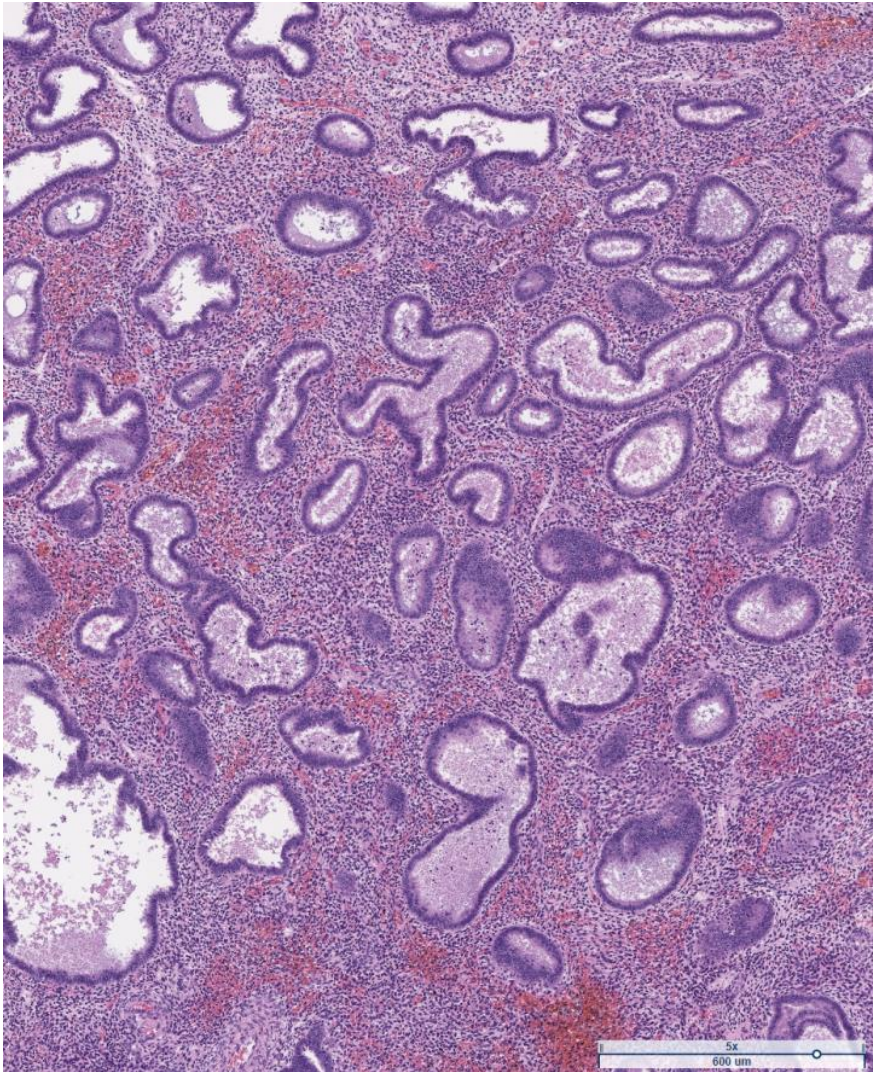
Macroscopy

- Liver wedge with attached diaphragm
- Unilocular cyst containing haemorrhage, and altered blood with soft haemorrhagic polypoid lesion extending into cyst from near the diaphragm.
- Haemorrhagic changes extending into overlying diaphragm.
- Background liver did not appear cirrhotic.

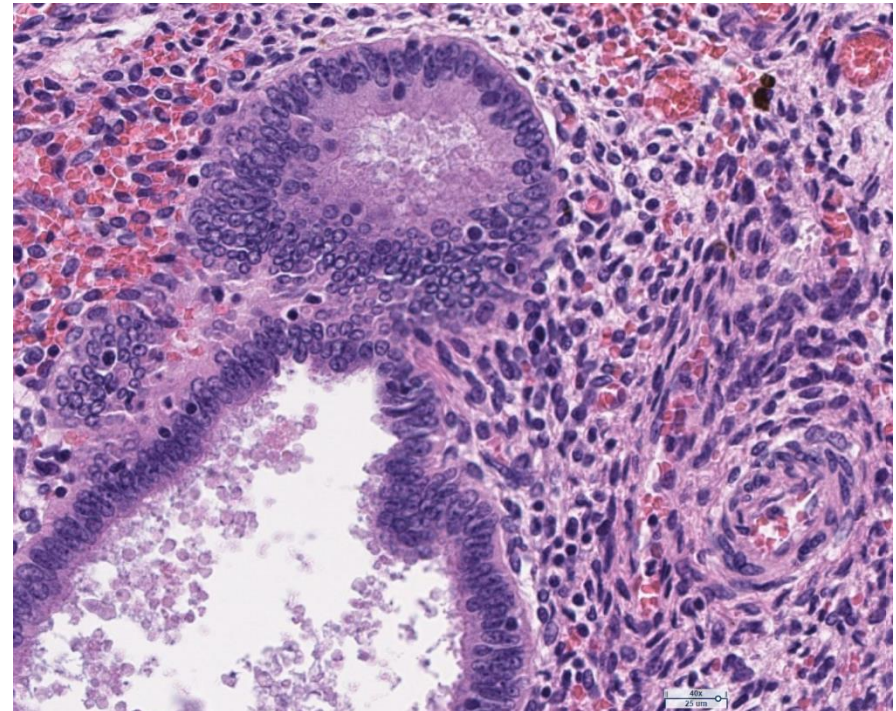
Microscopy:



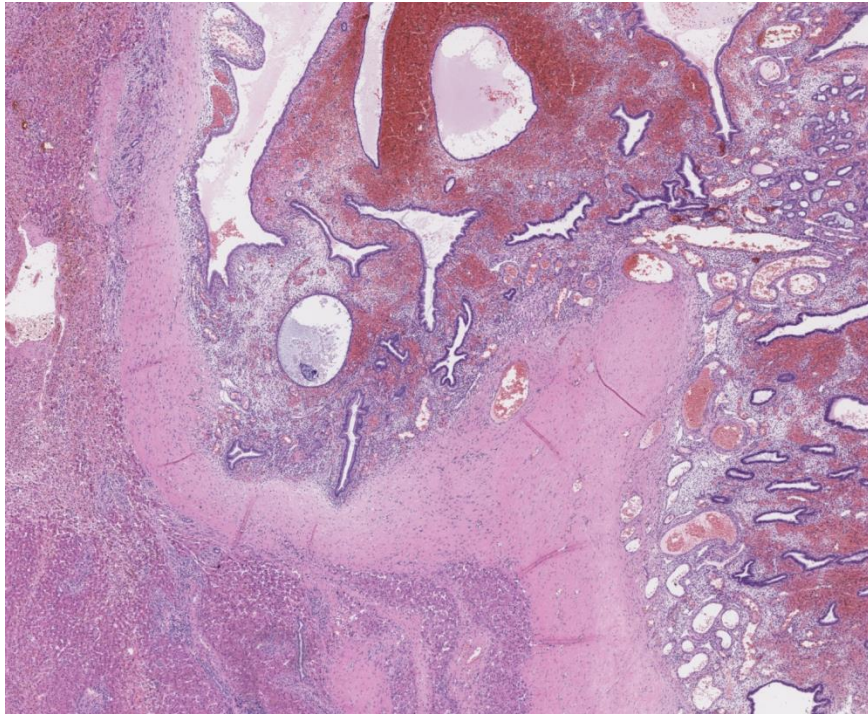
Low power view of solid area & 'invasion' into diaphragm.



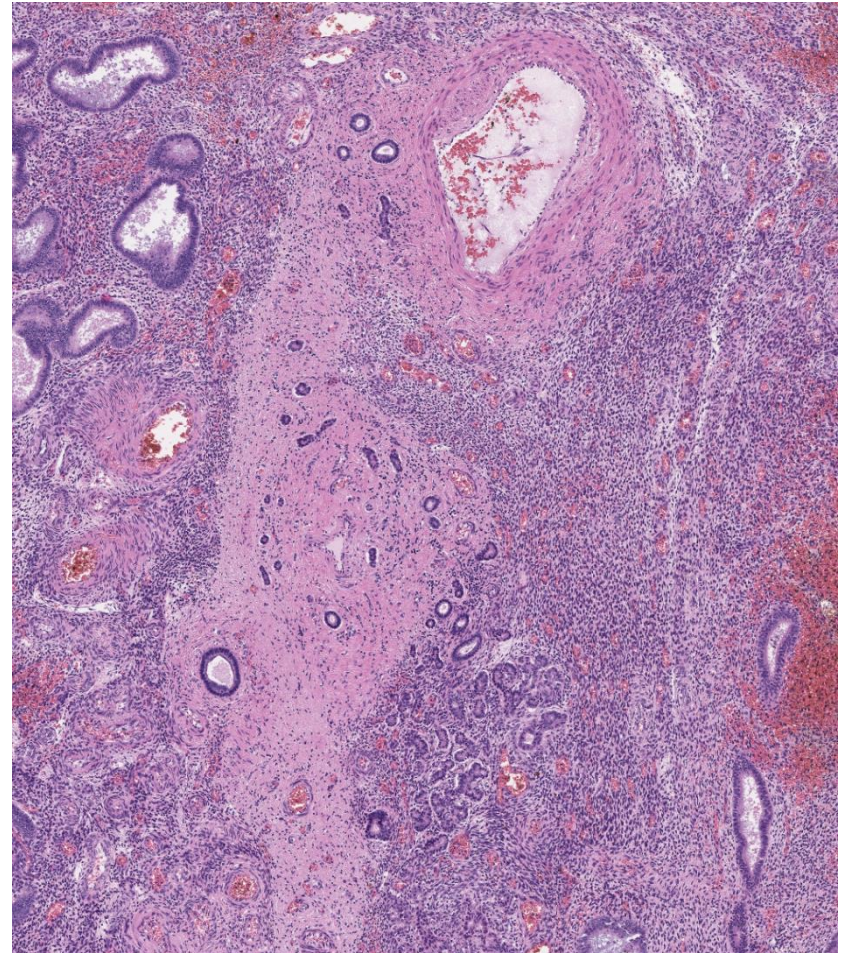
Solid area within cyst



High power view of glandular epithelium

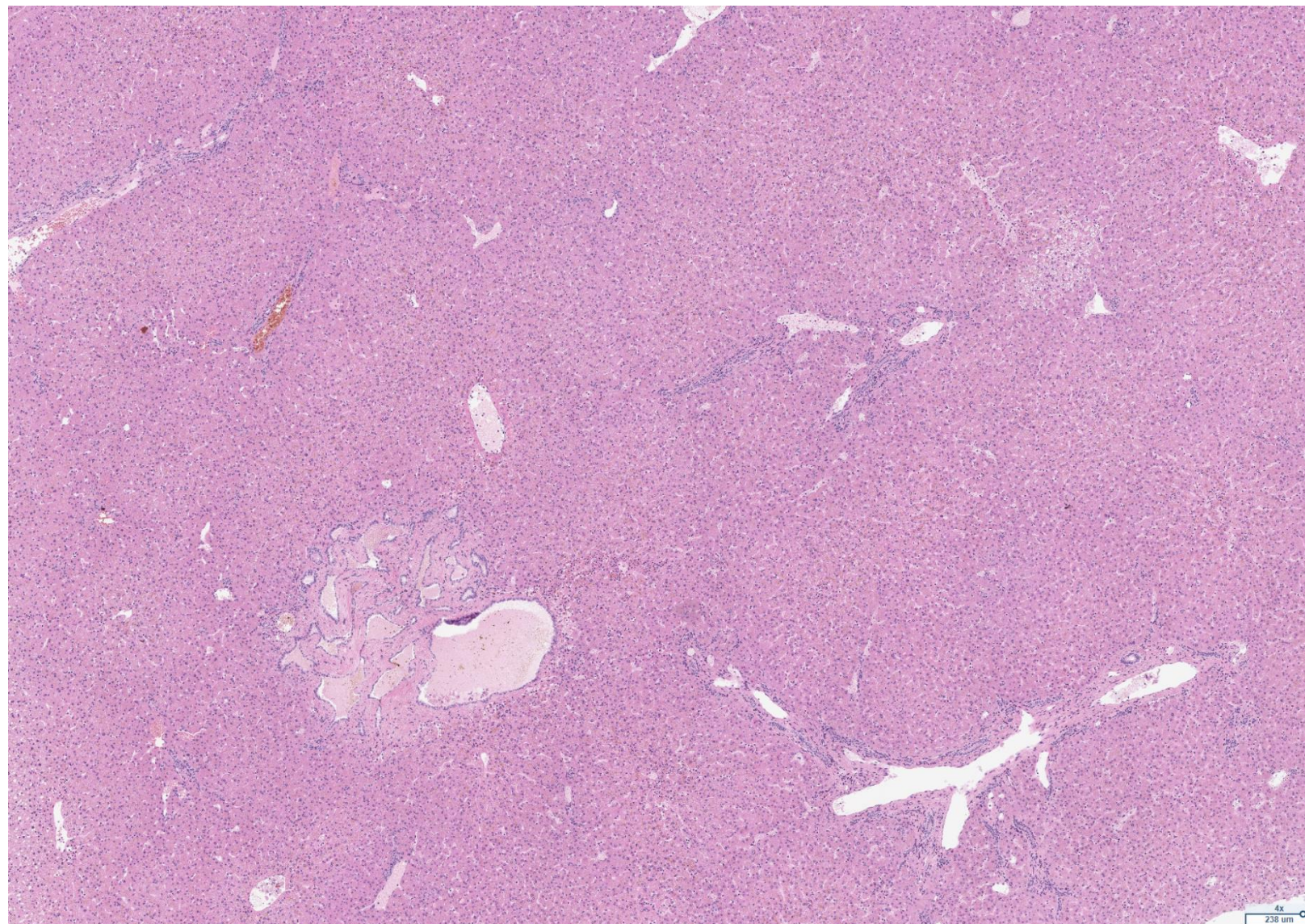


Cyst wall & background adjacent liver



Entrapped bile duct showing ductular proliferation.

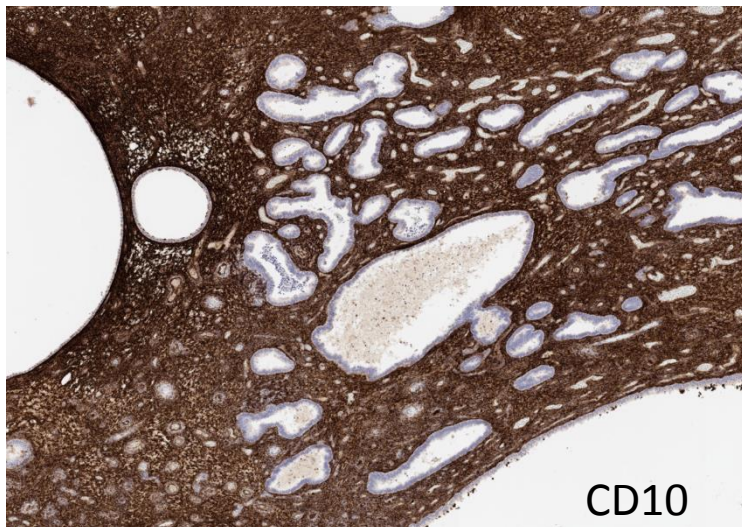
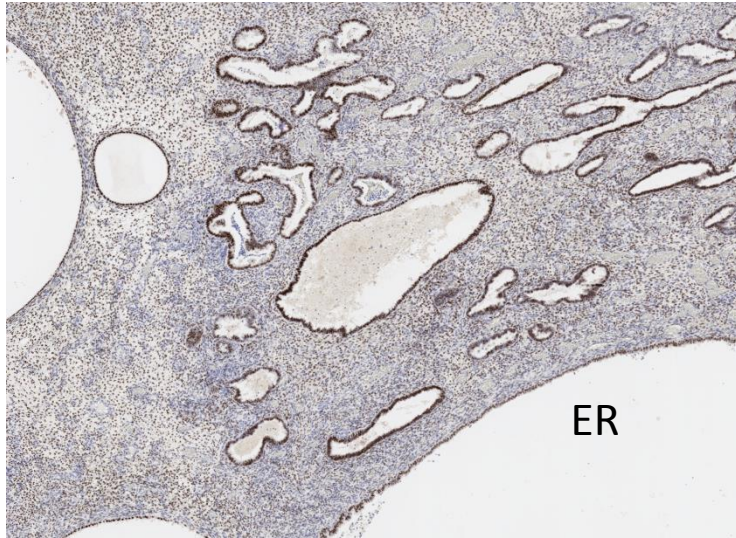
Background liver



Differential

- Hepatic endometriosis
 - Morphologically this would fit
 - Very rare
 - No history of endometriosis in clinical details provided
- Mucinous cystic neoplasm
 - More common
 - Risk of malignancy (especially given invading diaphragm)
 - Radiological concern for malignancy

Immunohistochemistry



| Immunohistochemistry | Endometriosis | MCN |
|----------------------|--|-------------------------|
| ER | Glandular epithelium & Stromal positivity | Stromal positivity only |
| PR | Glandular epithelium & Stromal positivity | Stromal positivity only |
| CD10 | Stromal positivity | Negative |
| Inhibin | Negative | Stromal positivity |

Diagnosis:

Hepatic Endometriotic Cyst

Hepatic Endometriosis

- Rare (approximately 26 cases reported in literature).
- Preoperative diagnosis on imaging is difficult – often cannot be distinguished from other hepatic lesions
- Most case reports indicate a history of endometriosis
- Gold standard for diagnosis is histology.

- Potential for endometrial hyperplasia and malignancies to arise within an area of endometriosis.
- Important to distinguish from MCN due to different treatment & ongoing management options.

References

- Keramidaris D, Gourgiotis S, Koutela A et al. Rare case of hepatic endometriosis as an incidental findings: Difficult diagnosis of a diagnostic dilemma. Annals of Hepatology 2018: 17(5); 884-887
<http://www.medigraphic.com/pdfs/hepato/ah-2018/ah185t.pdf>
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- Hsu M, Terris B, Zen Y et al. Endometrial cysts within the liver: a rare entity and its differential diagnosis with mucinous cystic neoplasms of the liver. Human Pathology 2014: 45(4): 761-767.
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