

An interesting pancreatic FNA

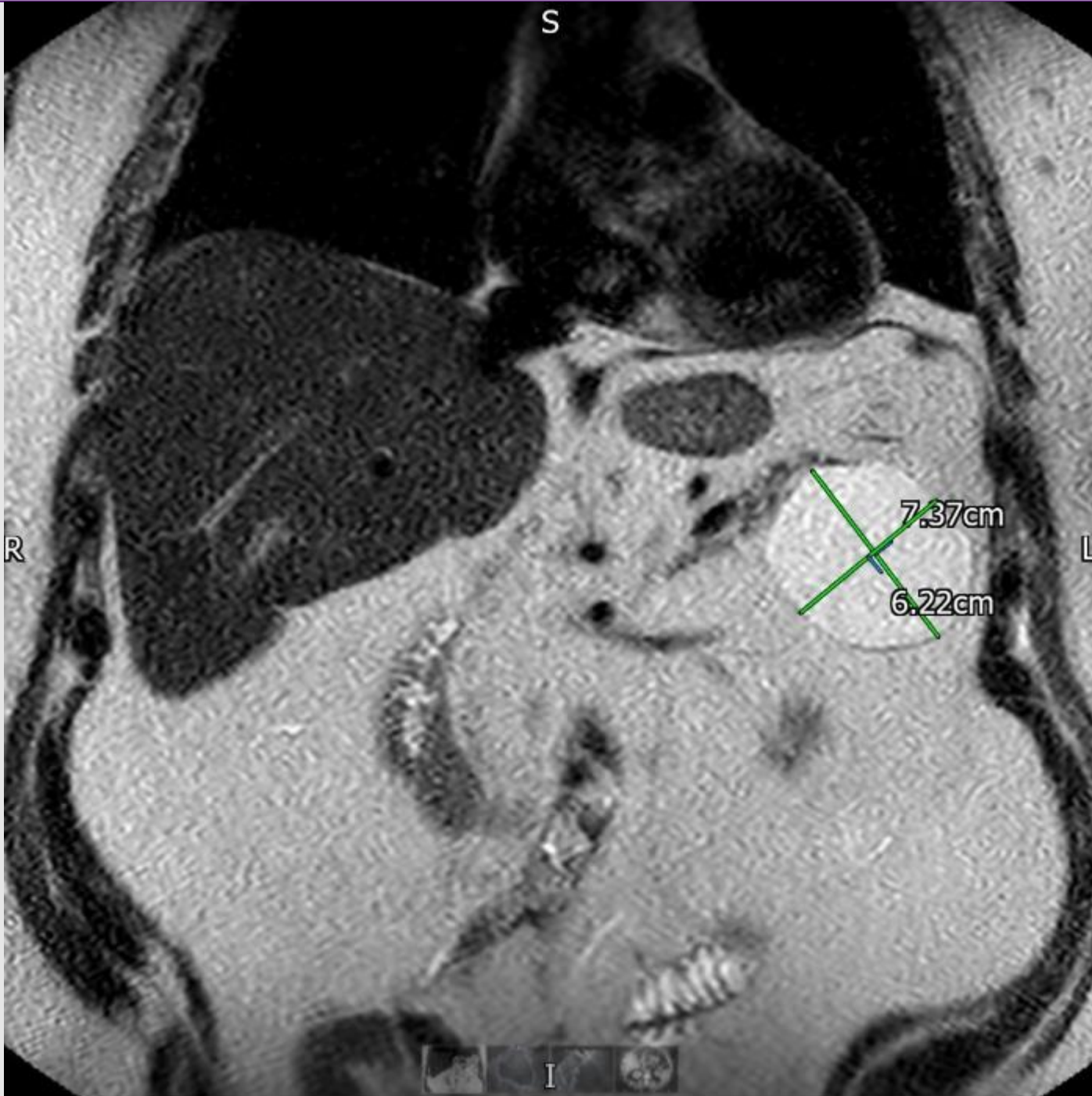
Dr Beth Birkbeck, ST1 Histopathology

Royal Cornwall Hospital

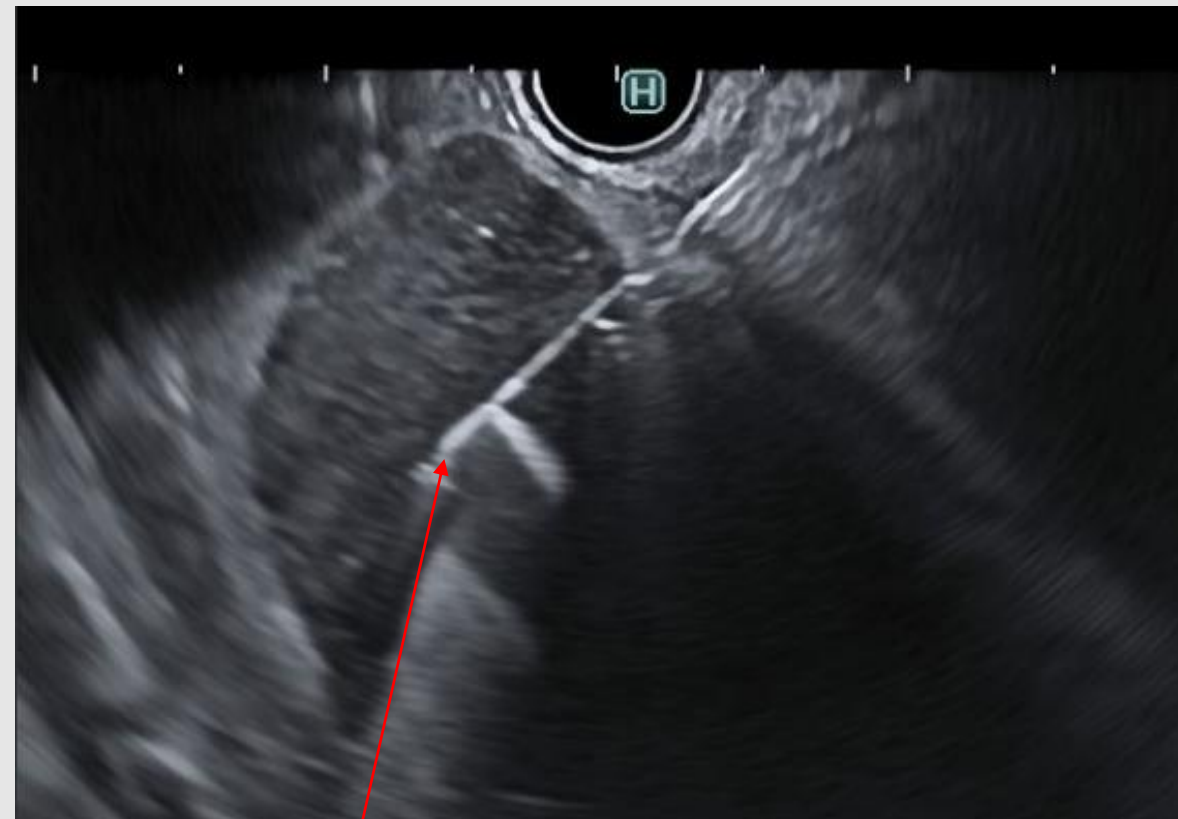
Clinical Information

- **2018** patient presented with vertebral collapse. MRI detected an incidental 4.2cm echogenic cystic structure adjacent to pancreatic tail
?serous cystadenoma
- **2023** EUS showed 7cm cyst ?serous cystadenoma for surveillance only
- **Sept 2024** surveillance MRI showed increase to 7.5cm. MDT suggested sampling of the lesion by EUS

Sept 2024 MRI
Surveillance scan



Oct 2024 EUS - The lesion measured just under 8cm and was aspirated for cytology and biochemistry

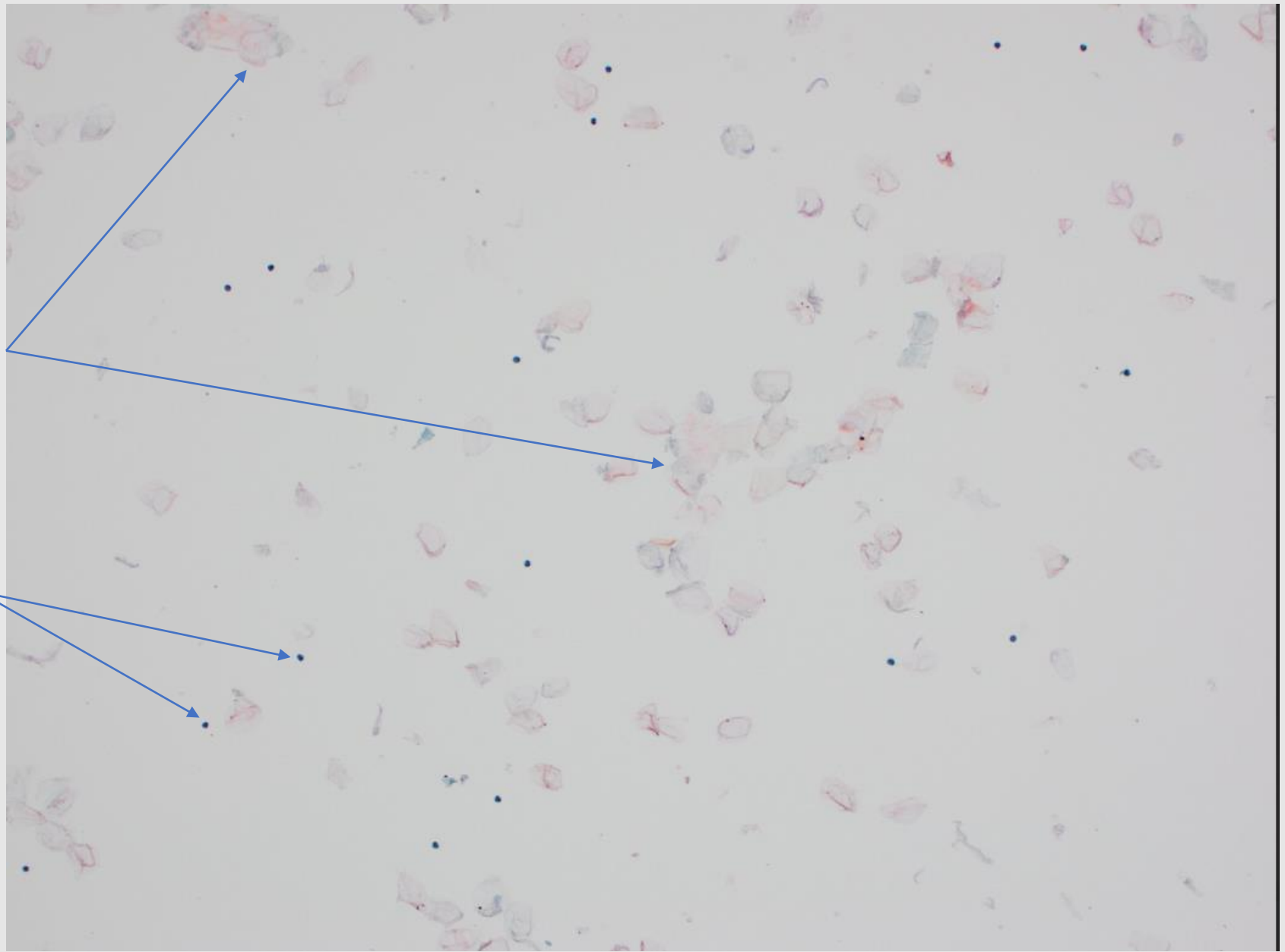


22G EUS needle

Pap x10

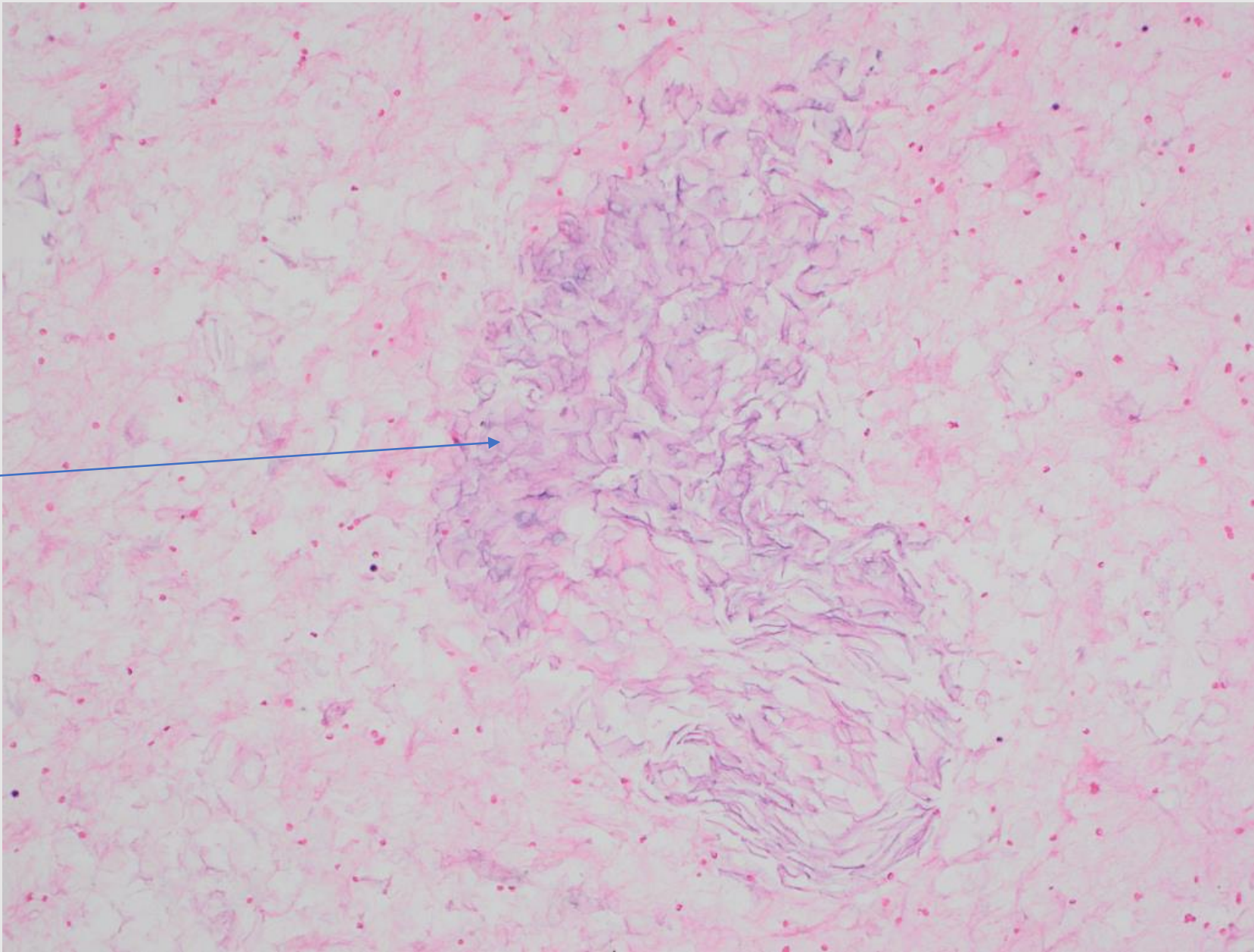
Anucleate Squamous cells

Lymphocytes



**H&E Cell block
x20**

Keratin



FNA cytology

- The sample consisted of an abundance of anucleate squamous cells with scattered mixed lymphocytes and keratin present in the background.
- Sparse nucleated squamous cells without atypia were also present.
- Consistent with a lymphoepithelial cyst.
- There was also a significantly raised CEA (~5000) -common in lymphoepithelial cysts (WHO reporting system for pancreaticobiliary Cytopathology).

Background: Lymphoepithelial cyst

- Very rare!
- Non-neoplastic, true cysts lined by squamous epithelium surrounded by abundant, reactive lymphoid tissue. Unilocular or multilocular.
- Histologically similar to branchial cleft cysts in neck
- 80% male
- 0.5% of resected pancreatic cysts
- Occurs anywhere in the pancreas
- Not associated with immunosuppression or autoimmune diseases

Diagnosis: Clinical features and imaging

- Often asymptomatic middle-aged men
- 48% present with pain, 43% asymptomatic
- Medial size 50mm
- Can be cystic, solid, homogenous or heterogenous
- Often confused clinically with NET
- More likely to be extra pancreatic or exophytic
- Multilocular or unilocular cyst with possible solid component and slight hyperintensity of keratinized material

Diagnosis: Cytology

- Keratinous debris composed of **anucleated +/- mature nucleated squamous cells** present singly or in tissue fragments of stratified epithelium.
- Keratinous debris may appear **amorphous, fibrillar and/or granular**; inspissated mucoid-appearing debris with cracking may form crystalloids and may be more easily recognize as keratin on cell block preparations.
- **Lymphocytes**, macrophages and birefringent **cholesterol crystals** are occasionally seen May have mildly atypical mucinous glandular and parakeratotic epithelium

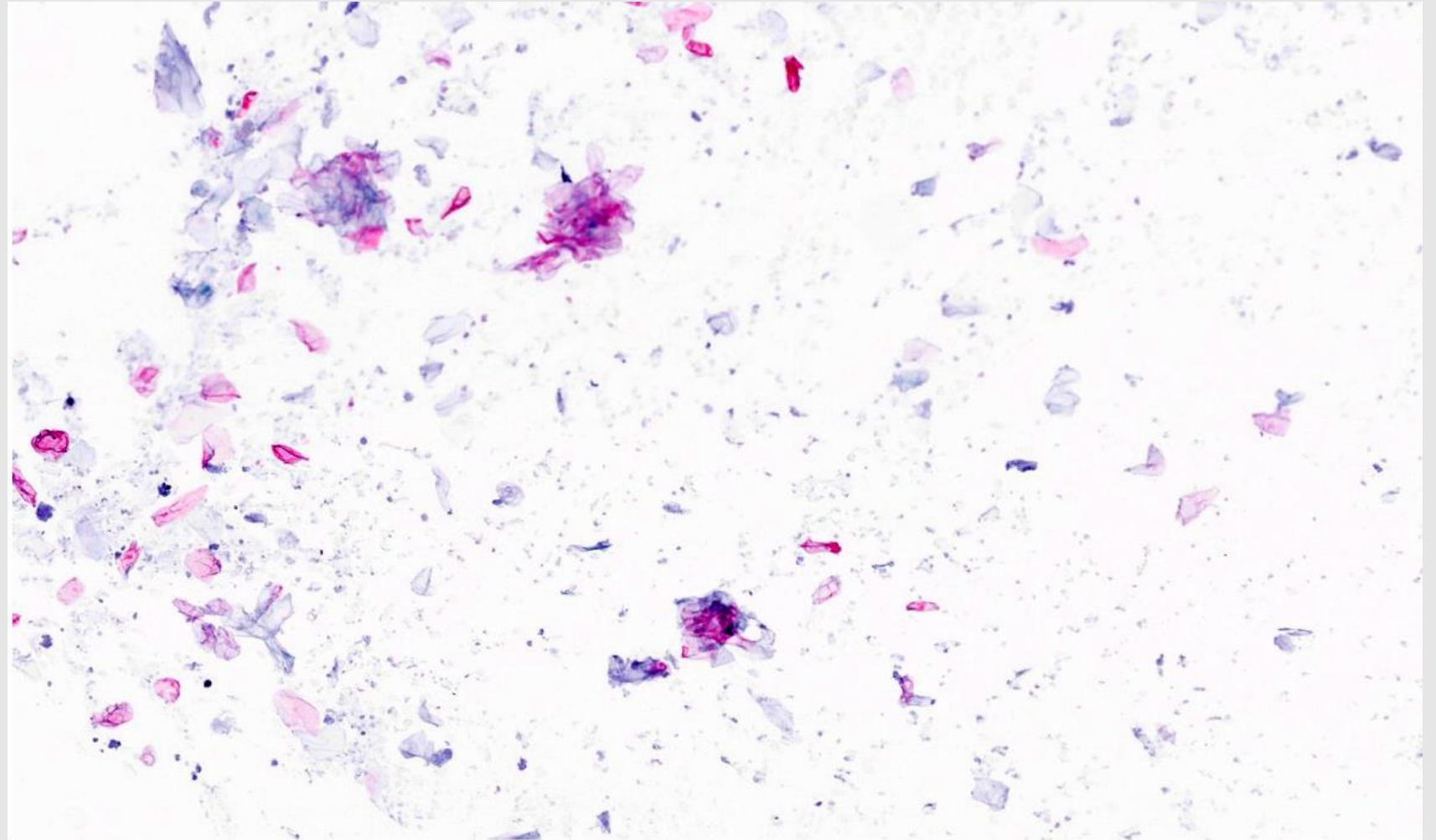
Diagnosis: Cytology

Pap x100

Paucicellular aspirate consisting of scattered degenerated squamous epithelial cells without atypia in a background of keratin debris and rare lymphocytes

Image:

<https://www.pathologyoutlines.com/topic/pancreaslymphoepithelial.html>



Diagnosis: Ancillary testing

ICC is not helpful!

Maybe patchy/ diffusely positive for CEA or CA19-9

Diagnostic pitfall:

Biochemistry on cyst fluid may have **elevated CA 19-9 levels (50% of cases)** and **elevated CEA levels (32% of cases)**. Therefore, the biochemistry can be misleading if considered in isolation. Diagnosis should be led by the morphology.

Clinical outcome of case

- Benign lymphoepithelial pancreatic tail cyst (8 cm)
- No further interval scan required
- Patient discharged following hepatobiliary MDT discussion
- Patient to return if symptomatic

Learning points

- Lymphoepithelial cysts are rare but important to recognise. These should not be reported as 'non-diagnostic'
- The biochemistry can be misleading (Raised CEA is associated with pancreatic adenocarcinoma).
- MDT discussion vital