

Compacted Periapillary Diverticulum Masquerading as Pancreatic Head Mass on Endoscopic Ultrasound

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Learning Objectives

- Endoscopic ultrasound (EUS) has become an increasingly important modality in the diagnosis and treatment of gastrointestinal malignancy as well as both pancreatic and biliary disease.
- It provides high-resolution, real-time imaging of the GI tract and surrounding structures. EUS is classically operator dependent and can often display suboptimal sensitivity and specificity.
- Numerous techniques such as Endoscopic guided fine-needle aspiration (EUS-FNA), EUS fine needle biopsy (EUS-FNB), rapid on-site cytological evaluation (ROSE) and contrast harmonic-enhanced EUS (CH-EUS) help to increase the sensitivity and specificity of this diagnostic modality.
- The following case describes a patient with initial EUS findings concerning for pancreatic head malignancy which was ultimately identified as a periampullary diverticulum compacted with sludge.

Patient Presentation

A 70-year-old patient with a past medical history of prostate cancer and cholelithiasis status post recent cholecystectomy presented with CT imaging findings concerning for pancreatic head mass.

Physical Exam:

Vitals: T 98.4F, BP 122/80, HR 60, RR 18, 98% on RA

General: AAOx3

Skin: Warm, dry, no jaundice

Cardio: RRR, Normal S1/S2

Respiratory: CTAB

GI: Soft, non tender, no guarding or rebound tenderness

MSK: Normal range of motion, all compartments compressible

Lab Values

138	104	24
4.1	28	1.1

14.0	223
6.4	40.4

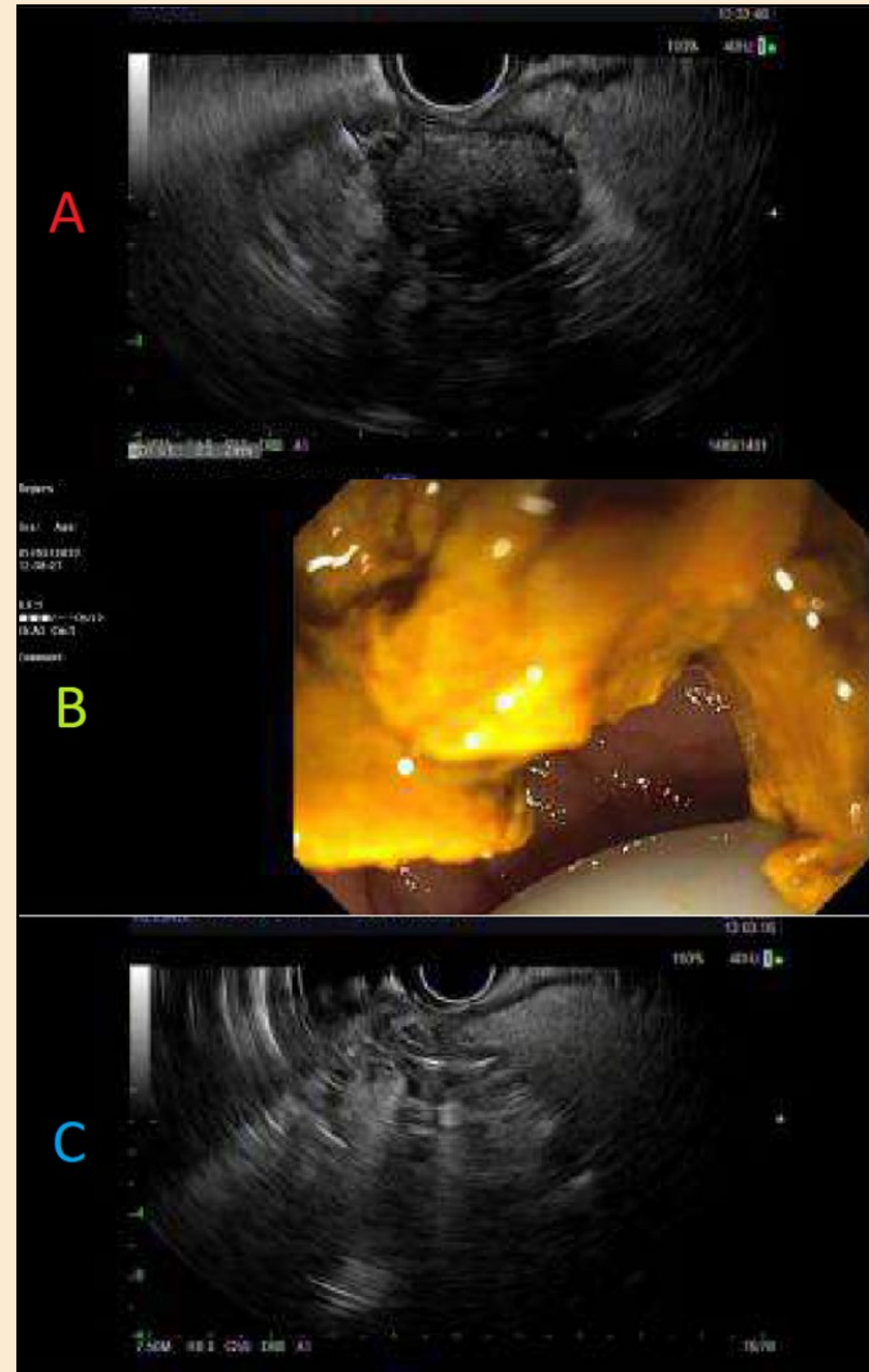
ALT/AST: 30/25

Tbili: 0.9

Dbili: 0.2

ALP 76

EGD / EUS



A. EUS showing well circumscribed, heterogeneously echoic uncinete process mass.

B. Duodenoscopy showing periampullary diverticulum compacted with sludge.

C. After lavage of sludge, EUS showing absence of suspected mass which was previously visualized.

Hospital Course

- The patient underwent initial EGD with EUS which illustrated a well circumscribed, heterogeneously echoic 26.8 x 24 mm uncinete process mass concerning for neuroendocrine tumor (NET).
- FNB was performed and cytology ultimately showed no evidence of malignancy. Due to continued concern for pancreatic NET, patient underwent repeat EGD and EUS.
- EUS redemonstrated the large heterogeneously echoic pancreatic head lesion concerning for mass. Attempts were made to visualize the ampulla with linear EUS scope, however there was significant debris in the second portion of the duodenum.
- Duodenoscope was then passed and a large caliber but narrow opening periampullary diverticulum was visualized and appeared to be filled with compacted sludge.
- A combination of biopsy forceps and water lavage was used to clean out the compacted sludge.
- The EUS scope was then readvanced into the second part of the duodenum and the suspected mass which was previously visualized was no longer visible.

Take Home Points

- EUS is an important minimally invasive diagnostic procedure that has both high clinical success rate with minimal adverse events.
- EUS, like many other diagnostic modalities, has limitations when identifying and ruling out malignancy.
- This case highlights one such limitation showing that although initial findings were concerning for malignancy, further investigation revealed a duodenal diverticulum with compacted debris masquerading as an uncinete mass.

References

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