NORTHSIDE HOSPITAL

The Small cell carcinoma of the pancreas: Dilemma between primary and secondary manifestation

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LEARNING OBJECTIVES:

Small cell carcinoma can affect the pancreas as a primary malignancy or metastasis from another site.

When two separate sites are involved, tissue diagnosis from both sites may be necessary for determination of optimal treatment.

CASE PRESENTATIONS:

61-year-old white male with a 60-pack year history of smoking presented with pleuritic chest pain, cough and hemoptysis for three weeks.

Physical as exam was notable only for scleral icterus. Initial lab results revealed WBC 14.1 K/mcL, HG 12.6 g/dL, platelets of 378 K/mcL T Bili 2.1 mg/dL, ALP 137 IU/L, AST 99 IU/L, ALT 133 IU/L.

CT scan of the chest revealed post obstructive pneumonia of the left upper lobe. Bronchoscopy with biopsy revealed small cell cancer.

Regarding his elevated liver enzymes, a CT scan of the abdomen showed biliary duct dilatation and a pancreatic head mass.

MRI with MRCP images further characterized this lesion as a pancreatic mass and distal common bile duct narrowing and proximal dilatation.

Endoscopic ultrasound biopsy of the pancreatic lesion revealed this was also a small cell cancer. It remained unclear whether this was a separate primary or evidence of metastatic disease.

Liver enzymes trended down after common bile duct stent placement and patient followed up with oncology. He was started on carboplatin, etoposide and tecentriq.

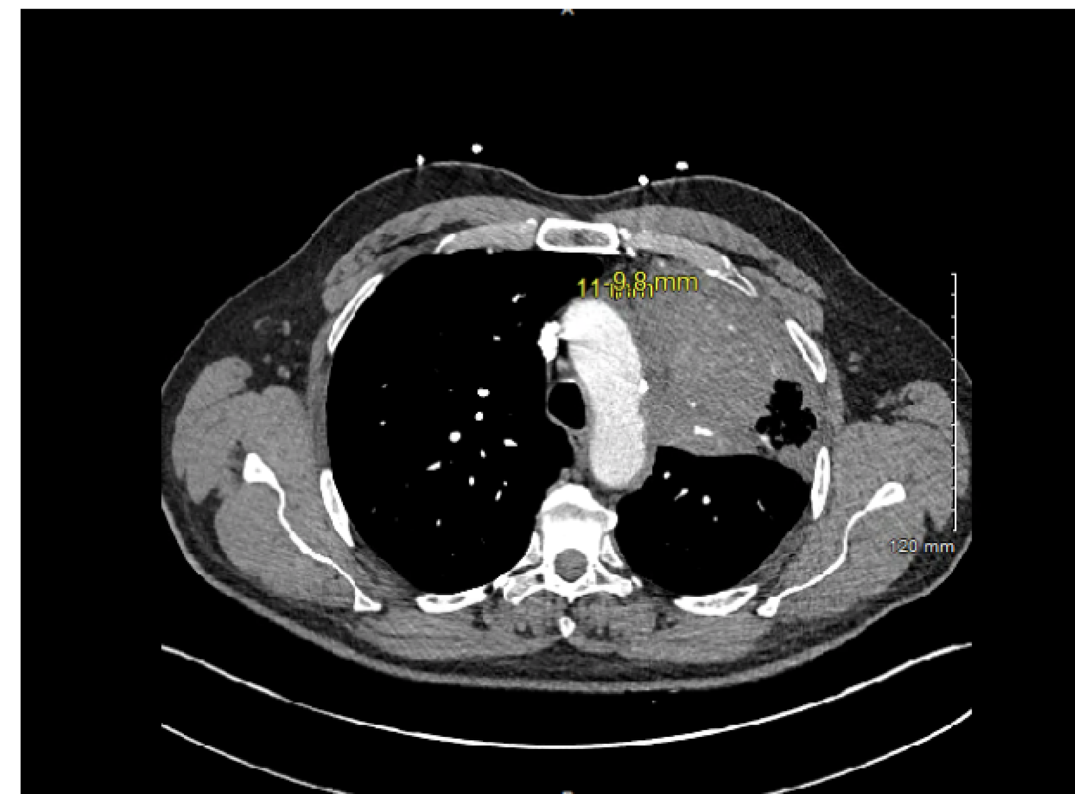

Figure 1: CTA of the chest showing the left upper lobe post obstructive pneumonia

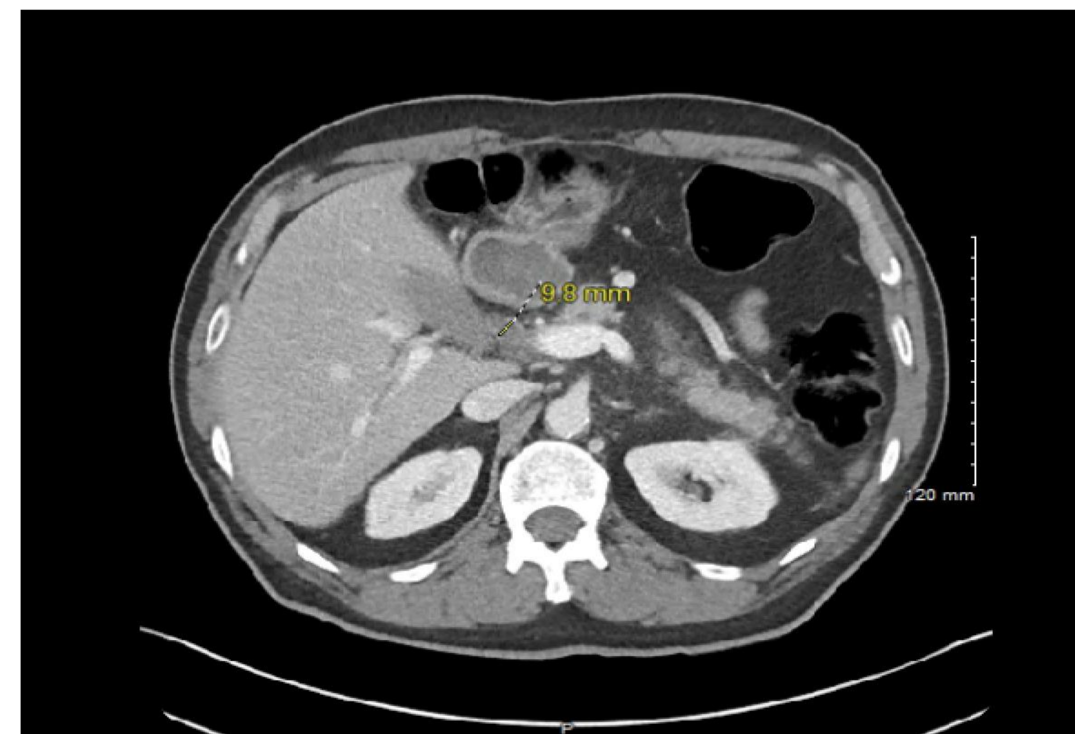

Figure 3: CT of the abdomen show pancreatic mass and bile duct dilatation

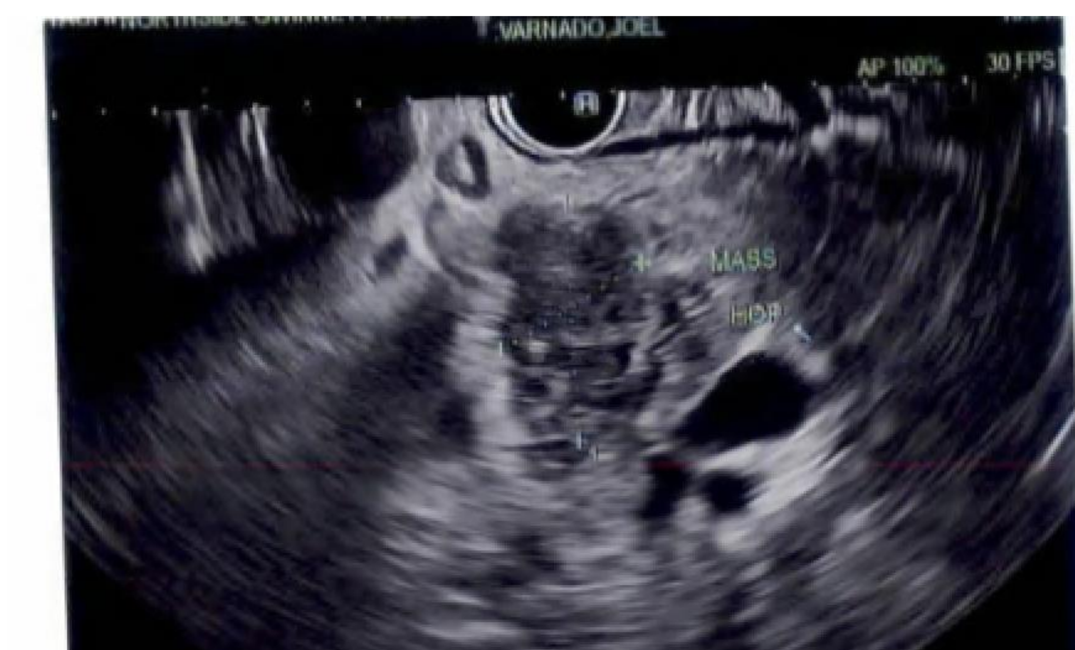

Figure 5: EUS during biopsy revealed the pancreatic mass

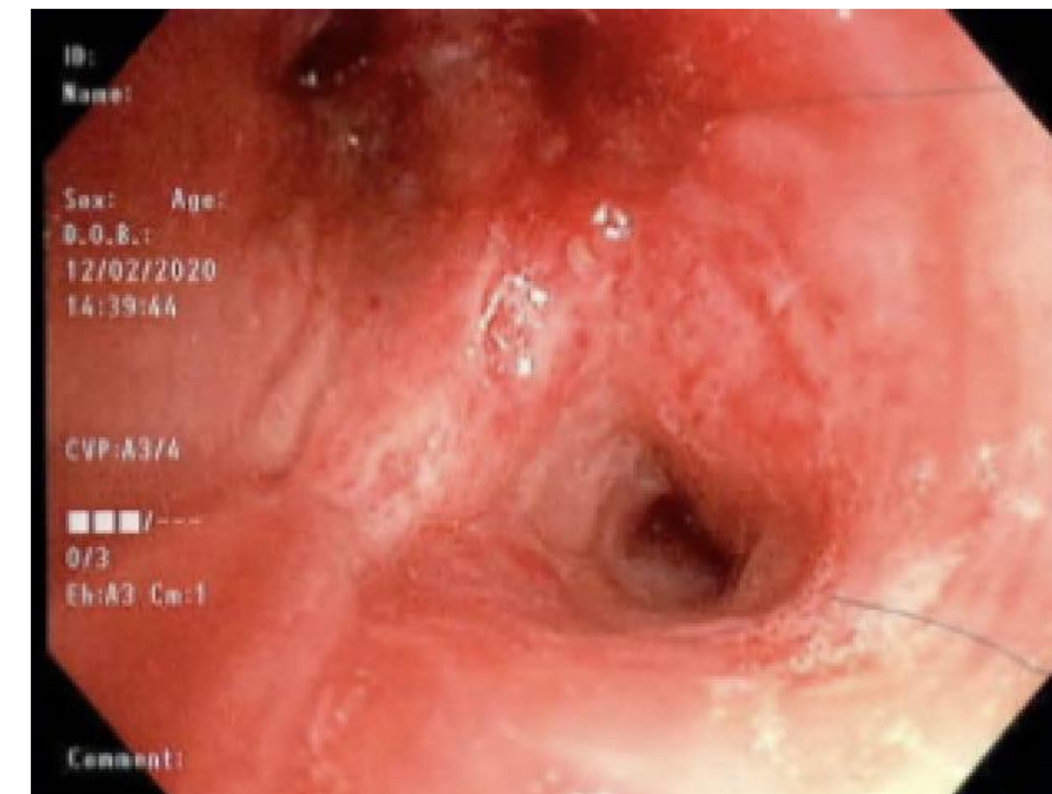

Figure 2: Bronchoscopy revealed Left upper lobe collapse during biopsy

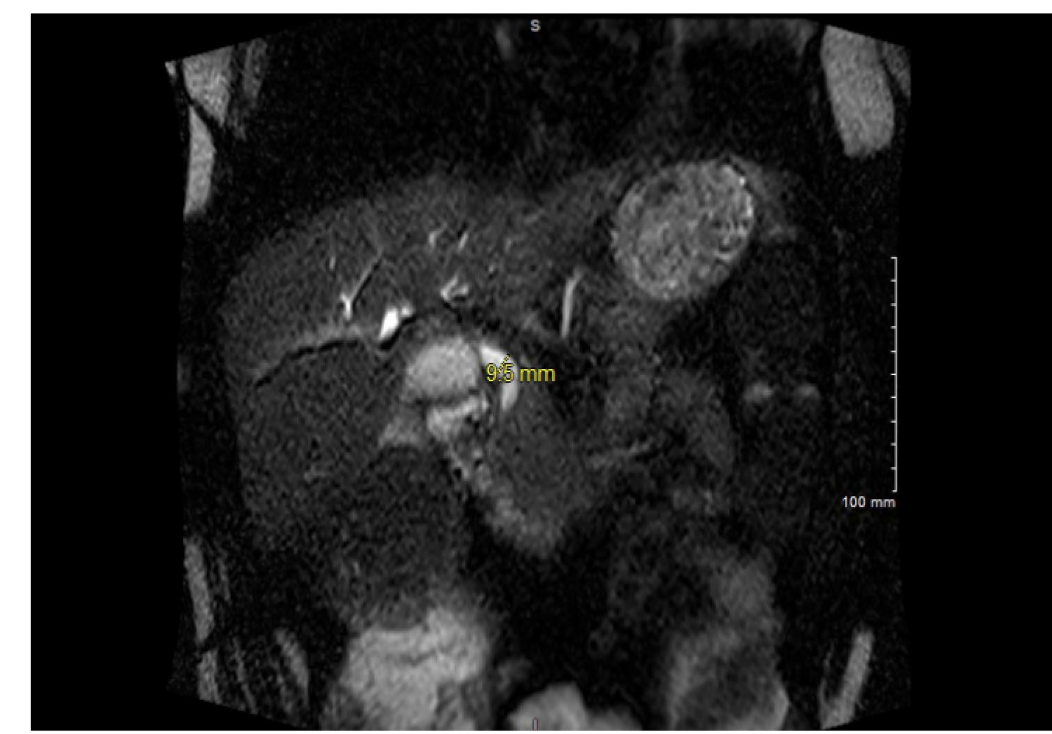

Figure 4: MRCP revealed pancreatic mass and CBD proximal dilatation

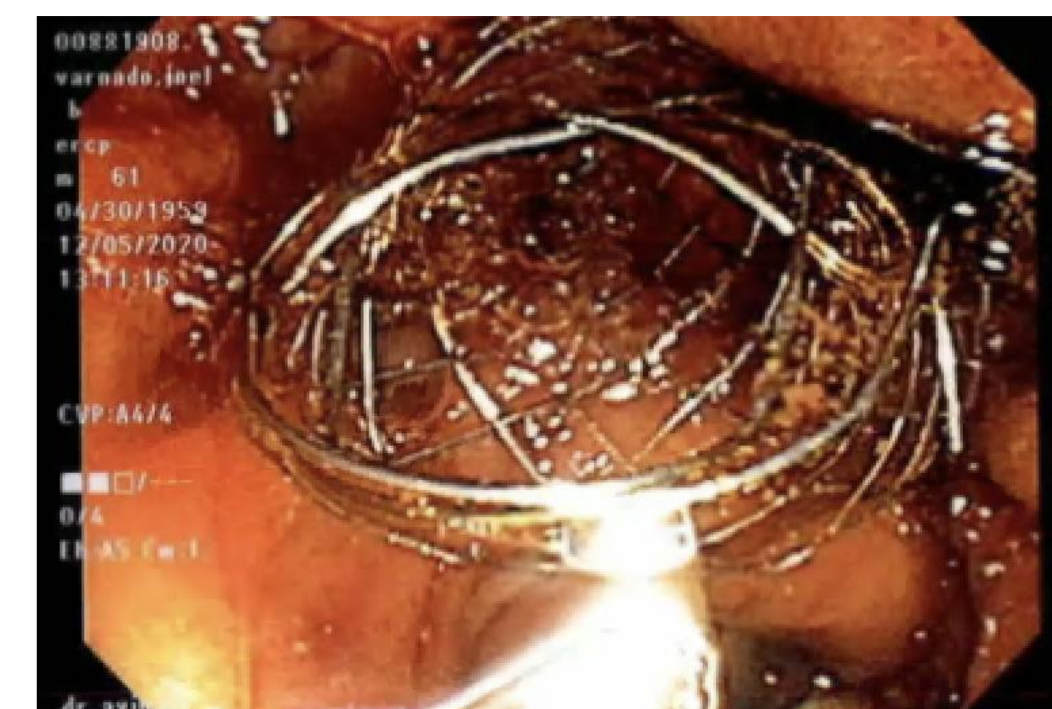

Figure 6: ERCP and CBD stenting for the CBD narrowing

DISCUSSION:

Pancreatic carcinoma is typically diagnosed at later stages with adenocarcinoma being the most common subtype. [1]

However, other subtypes are possible and endoscopic ultrasound guided biopsy is emerging as the best modality to obtain a tissue diagnosis.

Primary pancreatic cancer can metastasis to the liver, abdomen, lungs, brain and bone.[2]

Although metastasis to the pancreas from other primary sites is rare; it has been reported from renal, colorectal, melanoma, breast and lung.[3]

CONCLUSION:

Pancreatic malignancies can be small cell carcinoma and can be primary or sites of metastatic disease. Palliative chemotherapy is the treatment of choice.

References

1.McGuigan A, Kelly P, Turkington RC, Jones C, Coleman HG, McCain RS. Pancreatic cancer: A review of clinical diagnosis, epidemiology, treatment and outcomes. World J Gastroenterol. 2018;24(43):4846-61.

2. Deeb A, Haque SU, Olowokure O. Pulmonary metastases in pancreatic cancer, is there a survival influence? J Gastrointest Oncol. 2015;6(3):E48-51.

3. Sperti C, Moletta L, Patane G. Metastatic tumors to the pancreas: The role of surgery. World J Gastrointest Oncol. 2014;6(10):381-92.