

Question 4 – August 25

A 71 year-old woman presented with epigastric and left upper quadrant abdominal pain. She reported that the pain started couple of days prior to admission, and worsened progressively. She denied other symptoms. A CT scan of the abdomen was obtained, and revealed a 4 cm cystic lesion in the body of the pancreas. The patient was referred for endoscopic ultrasound. Fine needle aspiration was performed and fluid analysis revealed a high viscosity fluid, a CEA level of 270 ng/mL, a negative cytology, high-amplitude k-ras mutation and a high interleukin-1 β concentration. Which of the following is the most likely diagnosis?

- A. Intraductal papillary mucinous neoplasm with low- or intermediate-grade dysplasia
- B. Intraductal papillary mucinous neoplasm with an associated invasive carcinoma
- C. Mucinous cystic neoplasm with low- or intermediate-grade dysplasia
- D. Mucinous cystic neoplasm with an associated invasive carcinoma
- E. Solid-pseudopapillary neoplasm

Answer: B

High fluid CEA concentration (cut-off level of 192 ng/mL) is consistent with a cyst with mucinous epithelium- either intraductal papillary mucinous neoplasm (IPMN) or mucinous cystic neoplasm. Solid-pseudopapillary neoplasm fluid has a low CEA. A negative cytology does not exclude the presence of malignancy. High-amplitude k-ras mutation is an indicator of malignancy in mucinous cysts. Interleukin-1 β concentration has been shown to be high specifically in malignant IPMN.

References:

1. Yoon WJ et al. Pancreatic Cystic Neoplasms: Diagnosis and Management. *Gastroenterol Clin North Am.* March, 2012; 41(1); 103-118.