

Outcomes Following Nondiagnostic EUS-FNA of Pancreatic Lesions: A Retrospective Cohort Study

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Purpose

- To characterize diagnostic outcomes and safety implications following nondiagnostic (ND) endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) performed for pancreatic abnormalities detected on imaging

Results

- Final outcomes of 64 included patients: 17.2% pancreatic ductal adenocarcinoma (PDAC), 6.3% neuroendocrine tumor in 6.3%, 59.4% benign, and 17.2% indeterminate (Figure 1)
- Focal abnormalities in the pancreatic head or uncinate process were associated with PDAC compared with non-PDAC outcomes (OR 5.31, p=0.047)
- Median time to diagnosis was shorter for PDAC than benign cases (26 vs 61 days, p=0.021)
- 44.7% of benign cases were initially categorized as high suspicion on imaging, most commonly due to abrupt pancreatic duct cutoff

Final Diagnoses After Nondiagnostic EUS-FNA (n=64)

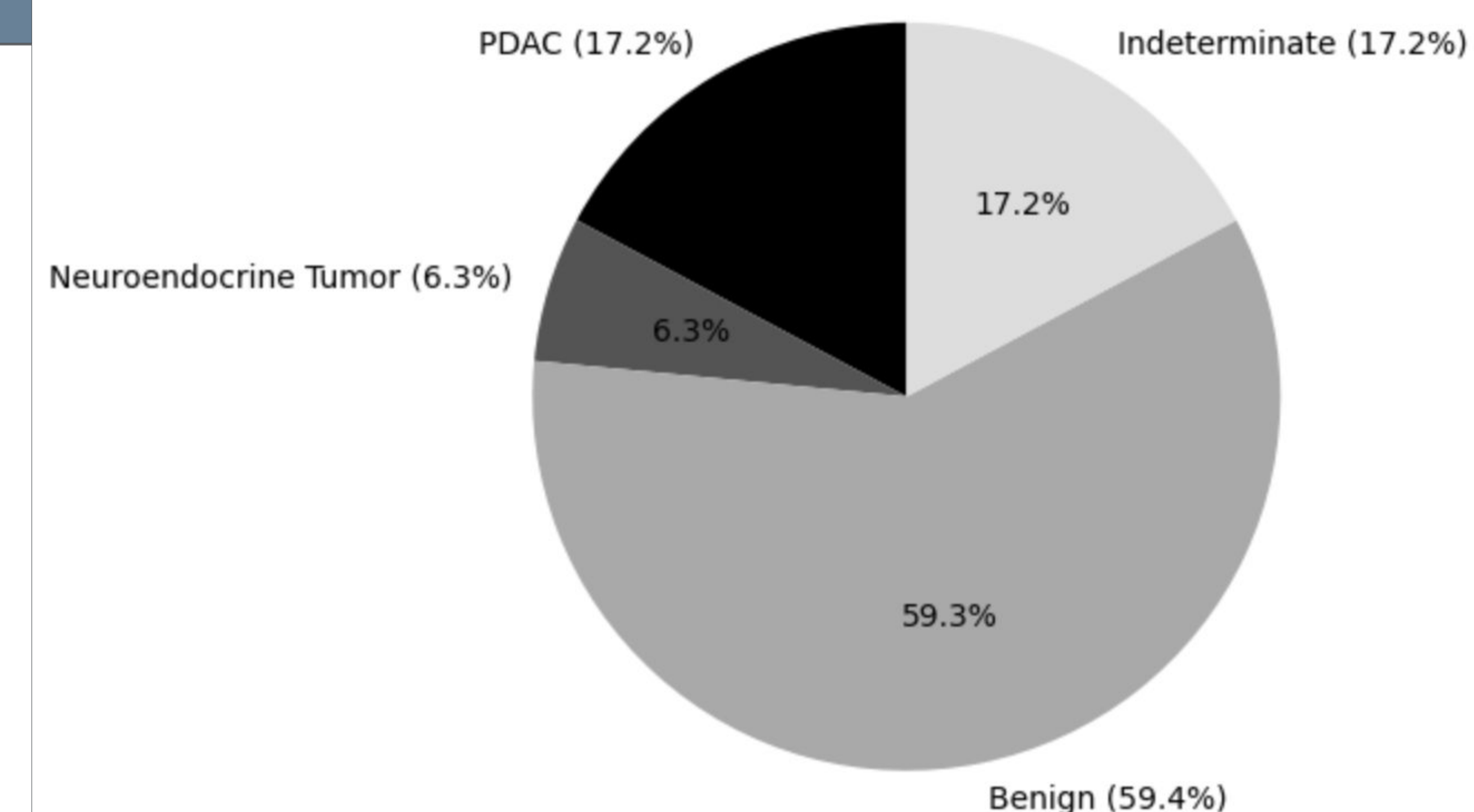


Figure 1

Methods/Materials

- Retrospective study of adults (2020-25) undergoing EUS-FNA for pancreatic abnormalities with ND results
- Excluded: definitive concurrent pathology, prior pancreatic cancer, or <1 year follow-up
- Extracted imaging features: lesion type, location, ductal dilation, radiologic suspicion
- Blinded radiologist re-reviewed imaging for concordance
- Collected EUS findings, labs, and final outcomes (histopathology or longitudinal follow-up)
- Statistical analysis: Fisher's exact test (OR, 95% CI); time to diagnosis via Wilcoxon rank-sum test

Conclusion

- Nearly one in five patients with ND EUS-FNA ultimately harbored malignancy, representing an important diagnostic safety concern
- Conversely, benign inflammatory conditions frequently mimicked malignancy on imaging and EUS
- There must to be structured follow-up strategies after nondiagnostic sampling to reduce missed cancer while avoiding unnecessary intervention