# DIFFERENTIAL DIAGNOSIS AND MANAGEMENT OF SUBCENTIMETER SOLID PANCREATIC LESIONS AT A TERTIARY REFERRAL CENTER

Fredy Nehme MD, Abraham Yu, MD, Faisal Ali MD, Cynthia Liu MD, Emmanuel Coronel MD, William Ross MD, Brian Weston MD, Phillip Ge MD, Philip Lum, Daniel Low MD, Jeffrey H Lee MD MPH

THE UNIVERSITY OF TEXAS MD Anderson Cancer Center

## Background and aims

- Improved imaging and endoscopic techniques have allowed the detection of small pancreatic solid lesions.
- Evaluation by EUS-guided fine needle aspiration (EUS-FNA) is commonly warranted given the risk of malignancy.
- The differential diagnosis of lesions ≤ 1 cm detected on EUS has not been thoroughly elucidated.

- **Aim**: To determine the etiology and clinical management of small pancreatic solid lesions ≤ 1 cm at a tertiary referral center.

## Methods

- Retrospective cohort study of 118 patients who underwent EUS-FNA of pancreatic solid lesions ≤ 1 cm in size at a single tertiary referral center.
- Cystic or semisolid lesions were excluded.
- The indication, endosonographic characteristics, and further management options were evaluated.

## Results

- 118 cases were included.
- The most common indication for EUS was incidental finding on cross-sectional imaging (79.6%), followed by pancreatic cancer screening (9.3%).

| Diagnosis (N=118) | Number (%) |
|---|---|
| Neuroendocrine tumor, N (%) | 77 (65.3) |
| Metastatic lesion, N (%) | 14 (11.9) |
| Benign lesion, N (%) | 14 (11.9) |
| Indeterminate, N (%) | 8 (6.8) |
| Pancreatic adenocarcinoma, N (%) | 5 (4.2) |

- Renal cell carcinoma was the most common metastatic lesion in 64.3% of the cases.

## Results (continued)

| Characteristics on EUS | |
|---|---|
| Lesion size (mm), median (IQR) | 8 (6-9.2) |
| Head/uncinate process nodule, N (%) | 38 (32.2) |
| Pancreatic body/neck nodule, N (%) | 39 (33.05) |
| Pancreatic tail nodule, N (%) | 41 (34.75) |
| Hypoechoic, N (%) | 111 (94.1) |
| Hyperechoic, N (%) | 2 (1.7) |
| Isoechoic, N (%) | 5 (4.2) |
| Irregular nodule, N (%) | 29 (24.6) |
| Regular Nodule, N (%) | 79 (66.9) |
| Additional solid lesion on EUS, N (%) | 58 (49.2) |
| Additional cystic lesion on EUS, N (%) | 25 (21.2) |
| Evidence of chronic pancreatitis, N (%) | 2 (1.7) |
| Pancreatic duct dilation (>3 mm), N (%) | 12 (10.2) |
| Number of Passes on EUS-FNA, median (IQR) | 2 (2-3) |
| Procedure time (minutes), median (IQR) | 66.5 (53-85.5) |

| Management (N=118) | |
|---|---|
| Repeat EUS, N (%) | 16 (13.6) |
| Surgical resection, N (%) | 22 (18.6) |
| Systemic chemotherapy or radiation, N (%) | 9 (7.6) |
| Palliative therapy, N (%) | 2 (1.7) |
| Follow-up with cross-sectional imaging, N (%) | 58 (49.2) |

- One and two year survival were 94.9% and 86% respectively.

## Conclusion

- Only a minority of patients with small subcentimeter pancreatic solid lesions are eventually diagnosed with adenocarcinoma.
- Endoscopic ultrasound guided sampling can provide useful adjunctive information to optimize management strategies.
- Accurate characterization of small solid pancreatic lesions without delay is crucial and could avoid morbidity associated with pancreatic surgery by reliable diagnosis of non-pancreatic adenocarcinoma.