

The Diagnostic Reliability of Endoscopic Ultrasonography (EUS) Guided Fine Needle Aspiration Biopsy (FNA) of Pancreatic Lesions

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Introduction: The diagnostic usage of EUS procedure in pancreas has been fairly increased in our daily practice. We documented EUS guided FNA cases, and compared the diagnostic concordance between EUS guided FNA and tissue biopsies

Material and Method: Archives of our department screened between 2010-2015 for pancreatic EUS guided FNAs.

Results: The diagnostic distribution of EUS guided FNA (n=108) and following biopsy/resections are shown in the table.

F/M ratio was 0,8 (49/59) and the mean age was 53 (84-13). The cases diagnosed as malign were; 16% (n=17) solid tumors (adenocarcinoma, neuroendocrine tumor, metastatic carcinoma, GIST, lymphoma); and 3% (n=3) cystic lesions (mucinous cystic neoplasia).

The reasons of nondiagnostic FNA results (n=39) were; crush artefact in 3% (n=1), hypocellularity in 36% (n=14), and acellularity in 62% (n=24). The localization of the lesion of these unsatisfactory cases were; 23% (n=9) pancreatic head, 15% (n=6) pancreatic corpus, and 10% (n=4) pancreatic tail.

Discussion: Pancreatic EUS-FNA is a problematic procedure, mainly due to the nature of the lesions; as such the lesions can be both cystic and solid; and cystic lesions have a wide spectrum from benign to malignant. Another factor for diagnostic difficulty is the contamination from the adjacent regions (stomach/duodenum).

We had the opportunity to study 44 resections out of 108 FNA biopsies. Our diagnostic concordance was 100% for the cases that were positive for malignancy on FNA.

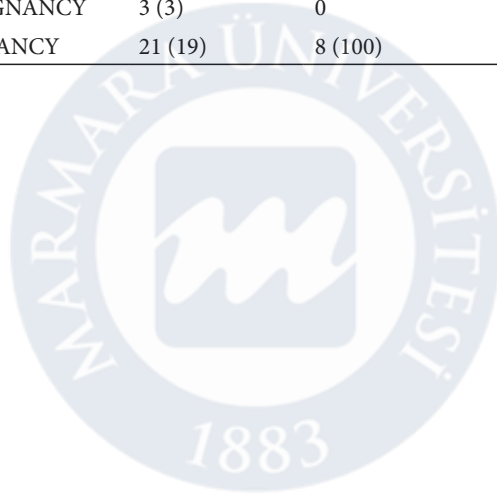
Seventy-five percent (n=3/4) of the cases classified as “presence of neoplastic cells”; turned out to be benign cystic lesions in the resection, such as serous cystadenoma and lymphoepithelial cyst. This heterogeneity could be explained as, this group contains both benign and malignant cystic lesions by definition.

Eighteen percent (n=2/11) of the cases classified as “negative for malignancy”; turned out to be malignant at the resection. The FNA slides of these cases showed peritumoral nonspecific chronic pancreatitis. These results shows us; the group “presence of neoplastic cells; benign/malignant” is a very heterogeneous one, and could be misinterpreted or misunderstood easily by the clinicians.

Keywords: EUS, FNA, pancreas, adenocarcinoma, diagnostic

Table 1. Diagnostic Distribution of FNA & Resections

FNA(n=108)	FNA(n=108)	RESECTION(n=44)	RESECTION(n=44)
DIAGNOSIS	n (%)	Malignant,n (%)	Benign,n (%)
NON DIAGNOSTIC	39 (36)	6 (37)	10 (63)
NEGATIVE FOR MALIGNANCY	30 (28)	2 (18)	9 (82)
PRESENCE OF ATYPICAL CELLS	4 (4)	1 (50)	1 (50)
PRESENCE OF NEOPLASTIC CELLS; BENIGN/ MALIGNANT	11 (10)	1 (25)	3 (75)
SUSPICIOUS FOR MALIGNANCY	3 (3)	0	0
POSITIVE FOR MALIGNANCY	21 (19)	8 (100)	0



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