



Is EUS sufficient for discrimination of pancreatic cystic lesions?

Seicean A., Popa D., Stan R., Pascu O.

Third Medical Clinic, University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca, Romania

Endoscopic ultrasonography (EUS) can characterize cystic non-inflammatory lesions of the pancreas morphologically and to sample the intracystic liquid. Tumor markers in the liquid may differentiate premalignant/malignant lesions from benign lesions in more than 60% of cases; validation of their specific levels is necessary for each center.

Aim:

To establish the utility of EUS features and tumor markers from intracystic liquid for differentiation of benign from premalignant/malignant cystic lesions of the pancreas.

Patients and method:

Over a period of 16 months we prospectively assessed by EUS-FNA 40 patients (mean age of 59 ± 12 years; male:female ratio 17:23) with cystic lesions of the pancreas, without history of acute pancreatitis or EUS signs of chronic pancreatitis. Their nature was confirmed by histology of a surgical specimen ($n=20$) or by follow-up ($n=20$). Cytology was positive in 23 cases (53.5%) and the material was insufficient for examination in 4 cases (9.3%).

Results:

In the surgical series, EUS features discriminated between cystadenocarcinomas and mucinous lesions with 85% accuracy and cytology was useful for diagnosing cystadenocarcinoma (sensitivity 100%, specificity 88%). In multivariate analysis, the intracystic CEA level was significantly higher in premalignant/malignant lesions (median 212 ng/ml) than benign lesions ($p=0.046$) and for discrimination between mucinous cystadenoma and cystadenocarcinoma ($p=0.038$). The ACE cut-off value was 137 ng/ml, AUROC=0.917 (95%CI: 0.748-0.985), sensitivity=88.9%, specificity=90%. The CA 19-9 level was not useful for lesion discrimination.

Conclusions:

CEA levels in the intracystic liquid can discriminate between benign and premalignant/malignant pancreatic cystic lesions in our center. Obtaining sufficient material for cytology by EUS-FNA is mandatory for correct differential diagnosis.