Cystic pancreatic neuroendocrine tumors

Key words: Cystic pancreatic neuroendocrine tumor. Pancreatic endocrine or neuroendocrine tumor. Endoscopic ultrasonography.

Dear Editor,

Cystic pancreatic neuroendocrine tumors (cPNETs) represent less than 8% of all pancreatic cysts and approximately 13% (1) of pancreatic endocrine tumors (PNETs).

According to a recent review (1), the percentage of non-functional (NF) PNETs is 85% and 44.6% are incidentalomas. In our series of 75 PNET cases, ten cPNET cases (13%) were identified which are discussed and summarized below (Table 1).

Case report

A 41-year-old asymptomatic male underwent a routine checkup via ultrasonography (US) and computed tomography (CT) and a 20 mm cyst was identified in the pancreatic tail (incidentaloma). Subsequently, a unilocular cystic lesion of 17 x 25 mm in size was identified in the pancreatic tail via 5 and 7.5 MHz EUS. Transgastric fine needle aspiration (FNA) (one pass) was performed with a 22G needle. Cytological analysis identified a chromogranin, synaptophysin-positive cystic pancreatic neuroendocrine tumor. The patient subsequently underwent surgery.

Discussion

According to the literature, cPNETs are usually non-functional, asymptomatic growths but may also be associated with multiple endocrine neoplasia (MEN). Occasionally, they are functional lesions (gastrinoma, etc.) and most of them are benign with a good prognosis, as in this case.

cPNETs may be incidental findings during imaging studies (US, contrast enhanced ultrasound [CEUS], CT and magnetic resonance imaging [MRI]) or endoscopic procedures, as occurred with most of our patients.
In a series of 19 cPNETs collected over 12 years, two patients had MEN (10.5%) and two had metastatic disease (10.5%). FNA-EUS effectiveness was 63% and low CEA levels were found in the cystic fluid (2).

In the most recent reported series with cohorts of more than 50 cases (3-5), most lesions were NF PNETs and incidentalomas, which is consistent with our series. We believe the percentage of incidentalomas and NF cPNETs is higher than 80%, with numbers reaching 95% in the most extensive series thus far reported (5). In the review by Hurtado-Pardo et al. (1), NF PNET were estimated to account for 85% of cases, whereas incidentalomas represent 44.6% of cases. We feel that this is lower than the actual rate.

References


