Primary Squamous Cell Carcinoma of the Pancreas Diagnosed by Endoscopic Ultrasound-Guided Fine Needle Aspiration

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Abstract

Squamous cell carcinoma of the pancreas is a rare pancreatic malignancy. We describe the case of a female who presented with abdominal pain and was found to have a pancreatic mass on imaging. The diagnosis of pancreatic squamous cell carcinoma was established by endoscopic ultrasound-guided fine needle aspiration of the mass. To the best of our knowledge, this is only the second case report in the medical literature in which endoscopic ultrasound-guided fine needle aspiration was used for a cell-type specific diagnosis of primary pancreatic squamous cell carcinoma.

Key words

Squamous cell carcinoma – pancreatic neoplasms – endosonography – needle biopsy

Case Report

A 68-year-old female was referred with a 3 month history of epigastric pain with radiation to the back, nausea and vomiting, and fatigue. Initial physical examination revealed mild tenderness over the epigastrium without rebound, guarding, or any appreciable masses. Laboratory investigations were all normal including serum lipase (9 U/L, reference: 4-60 U/L) and CA 19-9 (16.8 U/mL, reference: 2-40 U/mL). Upper gastrointestinal endoscopy was normal as well. The patient underwent computed tomography (CT) of the abdomen for further evaluation (Figs. 1, 2). This showed a 3.4 cm low-density mass centered at the head of the pancreas which involved greater than 50% of the superior mesenteric artery with near occlusion of the splenic, portal, and superior mesenteric veins. In light of the CT findings, pancreatic cancer was suspected and the patient underwent endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) for a tissue diagnosis.

Transduodenal EUS-FNA, using a 22-gauge needle, was performed. This biopsy revealed numerous squamous cells...
consistent with well-differentiated squamous cell carcinoma (Figs. 3, 4). No glandular components were seen. Further work-up did not reveal other possible primary cancer or metastatic disease. The patient refused open biopsy and underwent palliative radiation therapy with transition to hospice care and died three months later.

The clinical presentation of pancreatic SCC is similar to that of adenocarcinoma with patients typically presenting with upper abdominal and back pain, anorexia, weight loss, nausea, vomiting, and obstructive jaundice [6]. There are two radiographic features of SCC which may help to differentiate it from the typical pancreatic adenocarcinoma: enhancement of the tumor on contrast CT, and tumor blush patterns on angiography. Fajardo et al demonstrated increased attenuation of a primary pancreatic SCC after bolus injection of intravenous contrast which is a finding not typical of pancreatic adenocarcinoma [7]. Sprayregen et al also reported the angiographic features of two cases of SCC of the pancreas in which tumor blushes were present which could also help distinguish it from pancreatic adenocarcinoma [8]. However, these radiographic features are not always present thus making the diagnosis difficult to establish prior to obtaining a tissue sample.

Traditionally, surgery was performed in order to achieve a tissue diagnosis. However, EUS-FNA has been increasingly used in the diagnosis of pancreatic malignancies with a high sensitivity and specificity [9–14]. There are numerous cases in which pancreatic adenocarcinoma was successfully diagnosed by EUS-FNA. However, to the best of our knowledge, this is only the second case report in the medical literature in which EUS-FNA was used for a cell-type specific diagnosis of primary pancreatic SCC [15]. Squamous cell carcinoma of the pancreas usually carries a poor prognosis. In a review of 25 cases, median survival was 7 months for patients who underwent curative resection and 3 months for patients who did not undergo curative resection. For those with unresectable disease, some authors reported the use chemotherapeutic regimens (cisplatin and 5-fluorouracil were most frequently used), as well as radiation therapy. However, mid-to-long-term data on those patients also suggested poor outcomes [16].

**References**


