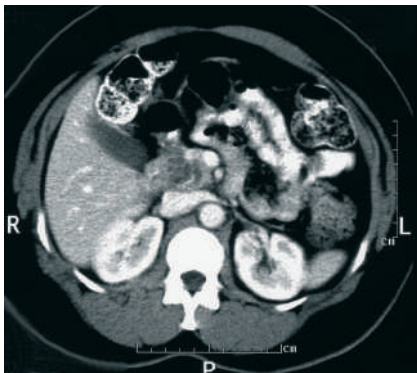


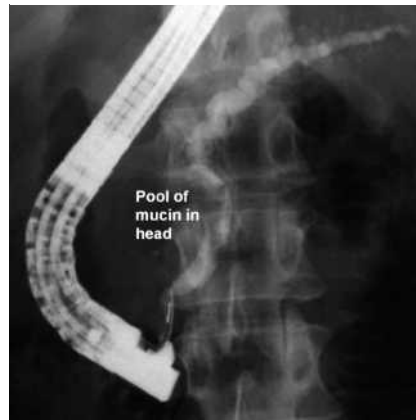
## Colloid carcinoma of the minor duodenal papilla



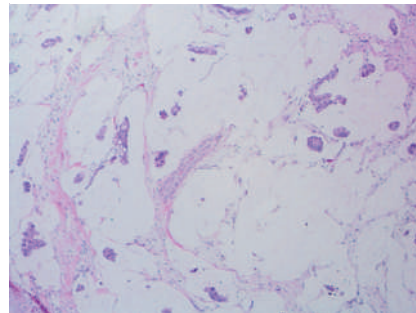
**Figure 1** Computed tomography showing cystic mass in the head of the pancreas.



**Figure 2** Ulcerated, polypoid mass at the minor duodenal papilla.



**Figure 3** Stricture of the proximal duct of Wirsung seen at ERCP.



**Figure 4** Histological appearance of the tumor with pools of mucin containing scant malignant glandular epithelial cells. (H&E; original magnification  $\times 20$ ).

A 43-year-old woman presented with intermittent epigastric pain and nausea. Her hemoglobin concentration was 10.3 g/dL. Abdominal imaging revealed a 4-cm cystic mass in the pancreatic head (▶ **Figure 1**). ERCP showed an ulcerated polypoid mass at the minor duodenal papilla (▶ **Figure 2**). Cannulation of the normal-appearing major papilla showed a dilated, 4-mm main pancreatic duct and a stricture of the main duct in the head of the gland (▶ **Figure 3**). Cannulation through the mass showed contrast in the ectatic dorsal pancreatic duct, which confirmed involvement of the minor papilla by tumor. Pancreas divisum was not present. A pancreaticoduodenectomy (Whipple procedure) revealed a polypoid gelatinous mass measuring  $3 \times 2 \times 1.5$  cm protruding from the minor papilla. Histologically the tumor showed mucin pools containing malignant epithelial cells (▶ **Figure 4**). Resection margins and 15 peripan-

creatic lymph nodes were free of tumor. Despite an uncomplicated immediate postoperative course, CA 19-9 levels are rising 22 months later along with possible liver metastases.

Tumors of the minor papilla are uncommon, but carcinoid tumors [1], somatostatinomas [2], and a case of a nonendocrine ductal adenocarcinoma [3] have been reported. Reasons for the rarity of recorded tumors in this location may be a low incidence but also the lack of symptoms caused by small indolent endocrine neoplasms and the absence of jaundice owing to patency of the major papilla [3]. Aggressive neoplasms may overgrow adjacent structures, thus obscuring their origin at the minor papilla [3]. Mucinous noncystic (colloid) carcinoma of the pancreas represents only 1%–2% of all pancreatic nonendocrine neoplasms [4,5] and has not been described in the minor papilla previously. It is characterized his-

tologically by extracellular mucin lakes with “floating” malignant epithelial cells [4,5]. It is important to distinguish colloid carcinoma from mucin-producing adenocarcinoma, signet-ring cell carcinoma and mucinous cystic neoplasms because the prognosis of colloid carcinoma is significantly better than that of ordinary pancreatic ductal adenocarcinoma, with a 5-year survival rate of 57% [4,5].

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### Bibliography

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