A 79-year-old man was admitted to the hospital with complaints of abdominal discomfort, jaundice and weight loss. His physical examination was unremarkable, but laboratory examinations revealed significant findings indicating steatorrhea and cholestasis. An ultrasound (US) study revealed marked dilatation of the main bile duct and bile duct as well as the associated branches, with no mass in the pancreatic head. A distended gallbladder was also observed on US. A magnetic resonance cholangiopancreatography (MRCP) revealed dilatation of the main pancreatic duct and side branches with irregular mural thickening and several filling defects (Figure A). These trends were also observed in 3-D volume rendering images (Figure B). Secondary to these findings, the gallbladder was distended, and the bile ducts were dilated. No mass was identified in the pancreas. The patient underwent endoscopic retrograde cholangiopancreatography (ERCP), and histopathological examination of the biopsy revealed intraductal papillary-mucinous neoplasm (IPMN).

Intraductal papillary mucinous neoplasm (IPMN) of the pancreas is characterized by the presence of a mucin-producing tumor and cystic dilatation of the branches of the pancreatic duct in the uncinate process (branch duct type), diffuse or segmental dilatation of the main pancreatic duct (main duct type) or dilatation of the main ducts and branch ducts (combined type). The dilated ducts often contain profuse mucin. This tumor is also known as a mucin-producing pancreatic tumor, mucinous ductal ectasia, intraductal mucin-hypersecreting tumor or ductectatic mucinous cystic tumor [1-2]. Dilatation of the main pancreatic duct and side branches led to diagnosis of combined-type IPMN.

MRCP is especially helpful for staging and as a road map to surgical and percutaneous intervention. Because the
increased spatial and contrast resolution increase the sensitivity to fluid and mucin on MRCP, the internal architecture of IPMNs and wall thickening of the main pancreatic duct and branches are better defined through the use of MRCP.

The clinical and radiological presentation of IPMN and chronic pancreatitis are often indistinguishable. Talamini et al. [3-5] prospectively followed 473 patients with chronic pancreatitis, including 45 cases of IPMN, and found that approximately 12% of patients with IPMN have a history leading to a diagnosis of chronic pancreatitis, and roughly 2% of all chronic pancreatitis diagnoses are associated with IPMN. The misdiagnosis of IPMN as chronic pancreatitis can lead to serious delays in appropriate management. Curative surgery is only possible if the condition is detected early. Distinguishing a diagnosis of IPMN from chronic pancreatitis can only be achieved through histopathology [6]. Consequently, we considered chronic pancreatitis in the differential diagnosis of IPMN.

The diagnosis is made through imaging studies that demonstrate characteristic dilatation of the branches or main duct of the pancreas and endoscopic studies that reveal thick mucin protruding through the bulging patulous duodenal papilla. The treatment decision with regard to IPMN is often based on the patient’s age at presentation, the presence or absence of symptoms, the location of the lesion in the pancreas, the extent of ductal involvement, and the presence or absence of malignant features [7, 8].

References