

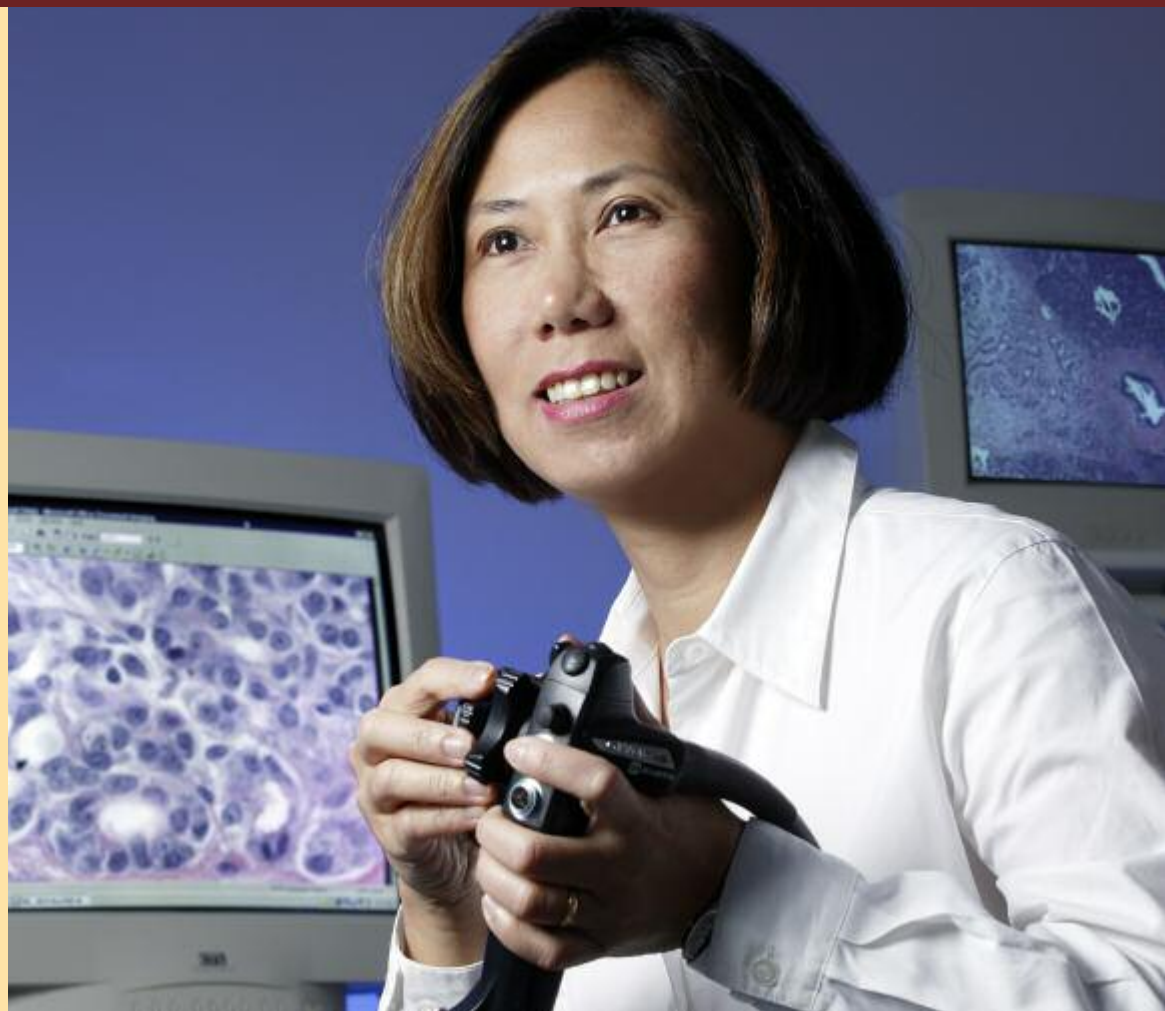


# INSIDE Tract



Spring 2006

## Scoping Out Pancreatic Cancer's Precursors



Mimi Canto uses endoscopic ultrasonography to visualize tiny lesions.

**THE CASE:** At 56, the New Jersey salesman appeared to be in fine health. He'd stopped smoking 10 years ago and had no symptoms to complain of. What brought him to gastroenterologist Mimi Canto was his family history. Not only was he of Ashkenazi Jewish descent, but his father, his father's brother and his first cousin had all died of pancreatic cancer.

Since 1998, Canto has been evaluating whether endoscopic ultrasonography (EUS) can detect precancerous lesions in people known to be at high risk for this deadly cancer. Her studies, called CAPS (cancer of the pancreas screening), have drawn dozens of asymptomatic participants from the National Familial Pancreas Tumor Registry, established here a dozen years ago to track pancreatic cancer patients and their relatives.

Because this patient presented with two strong risk factors—his ethnic background plus three relatives known to have had pancreatic cancer—Canto first advised him to undergo genetic testing. The results added another worrisome item to the list: a germline muta-

tion in the BRCA-2 gene, which is associated with cancer risk among Ashkenazi Jews. The patient, a wine collector, also had been drinking about a half-bottle daily for a decade—a further hazard.

Canto performed a baseline screening EUS and discovered focal cystic dilation of a pancreatic duct communicating with the main duct in the head of the gland. Later, using endoscopic retrograde cholangiopancreatography (ERCP), she also found a cystic lesion in the head of the pancreas communicating with a mildly dilated pancreatic duct. Taken together, these findings indicated severe chronic pancreatitis.

When Canto repeated her EUS exam at three and 12 months, she

learned that the focally ectatic branch pancreatic duct had grown from 10 millimeters to 18 millimeters. Furthermore, it had developed an appearance highly suggestive of an intraductal papillary mucinous neoplasm (IPMN), a type of lesion that if left untreated can become invasive pancreatic cancer. Using EUS-guided fine needle aspiration, Canto obtained cell samples that also were consistent with IPMN.

### TREATMENT DECISION:

Given the patient's family history of pancreatic cancer, his germline BRCA-2 mutation and the progression in size and appearance of the pancreatic lesion that Canto had found, she advised him to have surgery. Because of the location of the neoplasm in the head of the pancreas (see image, back page) and the diffuse nature of the chronic pancreatitis-like changes, he was able to choose a pylorus-sparing Whipple procedure instead of a total pancreatectomy and its well-known likelihood of causing severe brittle diabetes mellitus due to a complete lack of insulin-producing cells.

**OUTCOME:** The patient's operation was uneventful. He did very well postoperatively, was discharged from the hospital in less than one week and has returned to work.

The pathologic examination showed that his lesion was a 1.5-centimeter benign branch duct-type IPMN-adenoma. Nevertheless, the patient's germline BRCA-2 mutation means that he could still develop neoplasms in the remaining body and tail of his pancreas. Canto is continuing to monitor him closely.

### DISCUSSION:

Pancreatic cancer is a deadly disease with early detection providing the only best chance of prolonged survival. Canto's study is targeting people who by virtue of their family history are at a high risk for developing pancreatic cancer. The challenge is that they are all asymptomatic, and if abnormalities are found, then pancreatic surgery—a major intervention—should be performed. As in this patient, such surgery may be a life-saving intervention. ■

