Differentiation between chronic pancreatitis and pancreatic cancer can be difficult. Pancreatic cancer may develop after a history of year long chronic pancreatitis. The consequences of not identifying pancreatic cancer early and correctly will be devastating for the patient.

CASE REPORT

In June 2010, a 72 year old male patient was admitted to the department of internal medicine of a local community hospital because of continuous upper abdominal pain and a weight loss of 5 kg within a couple of weeks. The patient was a former alcoholic but had ceased drinking alcohol in 1987. A diabetes mellitus type 2 existed for a couple of years. Abdominal ultrasound, gastroscopy and colonoscopy did not show any pathologies and the abdominal pain ceased spontaneously.

In July 2010, an abdominal contrast-enhanced CT showed chronic pancreatitis with multiple calcifications but no evidence for pancreatic cancer.

In October 2010, the patient again was admitted to the local hospital with another episode of abdominal pain. Abdominal CT was repeated, again showing chronic calcifying pancreatitis without evidence for pancreatic malignancy. As the CA 19–9 was increasing from 70 U/ml (June 2010) to 370 U/ml (October 2010) it was recommended that the patient should be transferred to a specialized center with expertise in the treatment of pancreatic disease.

At the end of October 2010, he presented at the gastroenterological unity of a specialized center. Endosonography showed chronic calcifying pancreatitis with pancreaticolithiasis; no evidence for pancreatic cancer. Between 29-10-2010 and 13-11-2010, six ERCP’s were performed, all showing a subtotal distal stenosis of the main pancreatic duct with massive pancreaticolithiasis. There were repeated attempts of lithotripsy or litholysis, all being not successful.

After recurrent episodes of severe abdominal pain in January 2011, the patient underwent another four attempts of endoscopic pancreatic stent placement. These attempts, again, were not successful. At that point, CA 19–9 was 441 U/ml. In abdominal CT a pancreatic tumor could not be ruled out and it was recommended that “surgical treatment should be taken into consideration”.

In March 2011, the patient presented at our institution. This was the first time, that a surgeon was consulted. In abdominal CT, there were impressive calcifications of the complete pancreas but no circumscribed tumor or other direct or indirect signs of pancreatic malignancy (Figure 1). In addition, there were no signs of vascular infiltration.

The indication for surgical treatment was based on the increasing CA 19–9 level and the fact, that the patient suffered from recurrent pain attacks of increasing intensity and frequency. It was intended to perform a partial duo-denopancreatectomy.

On laparotomy, we found a palpable tumor in the uncinate process. The rest of the pancreas showed the typical picture of chronic calcifying pancreatitis with multiple stones in the pancreatic ductal system.

Frozen sections were taken from the uncinate process. They showed a ductal adenocarcinoma of the pancreas with perineural invasion. The portal vein was infiltrated by the carcinoma over a distance of several centimeter. Therefore, the tumor was considered to be not resectable and cholecystectomy with choledochojejunostomy was performed.

After an uneventful postoperative course, the patient received chemotherapy with Gemcitabine (May 2011–October 2011). In October 2011, a Yamakawa biliary
stent had to be placed across the biliary anastomosis due to progressive intra- and extrahepatic cholestasis. As this most likely was a sequel of tumor progression, chemotherapy was switched to a second-line scheme comprising Oxaliplatin, Calciumfolinate and 5-FU. Although an abdominal CT in February 2012 showed local progression of the tumor in the pancreatic head, the patient is doing well with a Karnofsky Index of approx. 90%.

**DISCUSSION**

Long-term survival in ductal pancreatic adenocarcinoma is only seen in cases operated at an early stage. For small pancreatic adenocarcinoma without lymphatic or distant metastases, 5-year survival rates of up to 20% have been reported.[3]

Overlooking pancreatic cancer in suspected chronic pancreatitis thus may have devastating consequences for the patient. Since Lowenfels published the results of a multicenter study in 1993, we should be well aware of the fact that the risk of pancreatic cancer is significantly elevated in patients with chronic pancreatitis. It increases with the duration of pancreatitis and doubles approximately every ten years.[5] In a recent study from the United Kingdom in pancreatic resection for benign disease, more than 25% of the patients had pancreatic malignancy in final histology.[5]

However, it can be extremely difficult to identify malignant tumors in chronic pancreatitis. Our case shows that imaging procedures alone are not reliable. Neither endoscopic ultrasound nor repeated Computed Tomography have identified the malignant lesion. Only serum CA19-9 could be taken as a vague indication of the underlying malignancy. Serum CA 19–9, however, has been shown to be elevated in up to 25% of the patients with chronic pancreatitis,[4] and if elevation is found in asymptomatic patients, the underlying pathology most predominantly seems to be chronic pancreatitis rather than pancreatic cancer.[3] In our case, the continuous increase of serum CA19-9 over a period of several months made the presence of pancreatic cancer highly suspicious.

Finally, this case raises the debate of treatment options in chronic pancreatitis. Recurrent episodes of pain are the main symptoms of chronic pancreatitis. There are various surgical approaches in chronic pancreatitis which offer a high rate of pain relief and an improvement of quality of life. Among them are drainage procedures (lateral pancreatojejunostomy) as well as pancreatic head resections with or without preservation of the duodenum. The beneficial effect of surgery is proven in numerous studies[6,7,8] and recent data indicate that surgery is superior to endoscopic stenting with regard to quality of life and pain reduction.[9,10] Surgery, in addition, offers the opportunity for histological examination of pancreatic tissue. In our case, earlier switching to surgery might have prevented various invasive examinations and given the patient the chance of resectability in curative intention.

**REFERENCES**