Letter to the Editor

Hyperparathyroidism: An Unusual Cause of Acute Pancreatitis Detected by Endoscopic Ultrasound

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A 45-year-old male, non-alcoholic and non-smoker, presented to us with acute pain abdomen and investigations revealed elevated serum amylase and lipase. Contrast enhanced computed tomography performed 5 days after the onset of pain revealed features of acute pancreatitis with peripancreatic fat stranding and less than 30% pancreatic necrosis (Fig. 1). His liver function tests, renal function tests, serum calcium and phosphate, lipid profile, and blood sugar were within normal limits. Ultrasound of the abdomen did not reveal any gall bladder stones. There was no history of drug intake prior to onset of abdominal pain. He was treated conservatively and his symptoms improved. He was discharged 10 days after admission and was planned for further etiological work up for acute pancreatitis. Endoscopic ultrasound (EUS) done 4 weeks later with a linear echoendoscope revealed enlarged pancreas with altered echotexture and no collection or pancreatic calcification was observed. The pancreatic duct was normal as was the gall bladder and common bile duct. On withdrawal of the scope, examination from the upper esophagus on the right side revealed a well-defined heterogeneously echotextured lesion that was located posterior to the inferior border of the thyroid lobe (Fig. 2). This lesion measured 1.4 cm in diameter, had small cystic spaces (Fig. 2) and there was no increased vascularity seen on power Doppler (Fig. 3). Repeat calcium levels were elevated (12.2 mg%; N <11 mg%) as was the serum intact parathormone (iPTH) levels (132 pg/mL; N <60 pg/mL). The 99Tm sestamibi scan revealed increased uptake in the right inferior parathyroid gland. The patient underwent right inferior parathyroidectomy and the histopathological examination of the resected gland revealed parathyroid adenoma. He had an uneventful post-surgical course and is asymptomatic over a follow up period of 10 months.

Primary hyperparathyroidism (PHPT) has been described as a rare cause of both acute and chronic pancreatitis.[1,2]

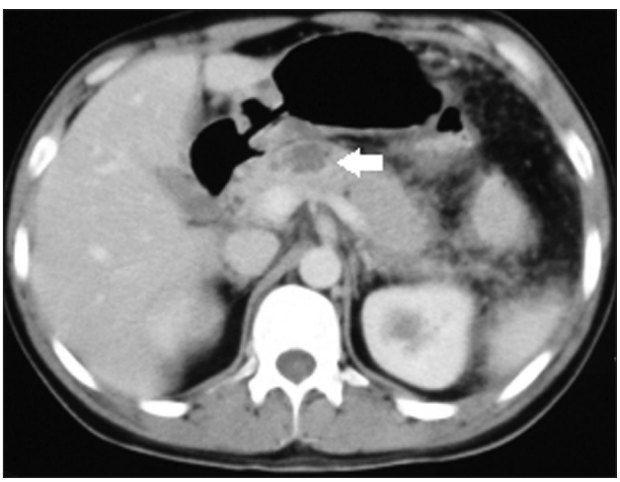

Figure 1. Contrast enhanced computed tomography showing less than 30% pancreatic necrosis (arrow)

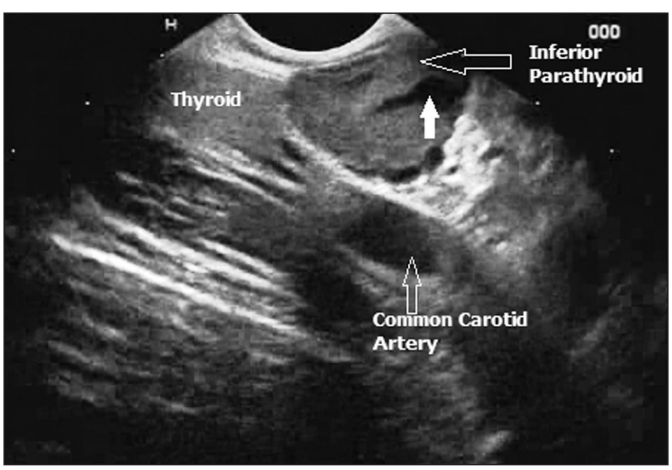

Figure 2. Endoscopic ultrasound: Well-defined heterogeneously echotextured lesion located posterior to the inferior border of the thyroid lobe. Cystic area is seen in the lesion (white bold arrow)

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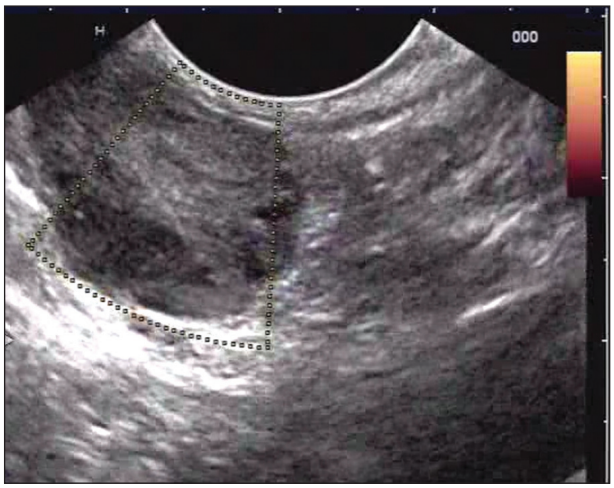

Figure 3. No increased vascularity seen on power Doppler

Still the causal relationship between the two is debated.[1] However, the available clinical and experimental data as well as our earlier study has suggested an association between PHPT and pancreatitis.[1,2] The diagnosis of PHPT is usually made in the presence of an increased serum calcium level along with an inappropriately elevated iPTH level.[3] But, serum calcium levels may be low or normal in the early phase of acute pancreatitis and therefore, PHPT may not be suspected, as was in this case. Technetium 99m sestamibi scintigraphy and high-resolution four-dimensional computed tomography have been reported as imaging modalities that are helpful in localization of parathyroid adenoma.[3] The localization of parathyroid adenoma has not been previously reported on EUS. The present case suggests that EUS can help in detection of parathyroid adenomas in patients with unexplained pancreatitis and thus add on to the list of causes that can be diagnosed on EUS in patients with idiopathic acute pancreatitis.

REFERENCES

1. Bai HX, Giefer M, Patel M, *et al*. The association of primary hyperparathyroidism with pancreatitis. *J Clin Gastroenterol* 2012; 46: 656-61.
2. Bhadada SK, Udawat HP, Bhansali A, *et al*. Chronic pancreatitis in primary hyperparathyroidism: Comparison with alcoholic and idiopathic chronic pancreatitis. *J Gastroenterol Hepatol* 2008; 23: 959-64.
3. Suliburk JW, Perrier ND. Primary hyperparathyroidism. *Oncologist* 2007; 12: 644-53.