

A case of recurrent acute pancreatitis caused by hypercalcemia due to parathyroid adenoma

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The common reasons of acute pancreatitis are alcohol and biliary stones. Acute pancreatitis arising from hypercalcemia is rarely reported. Here we show a case of primary hyperparathyroidism-induced hypercalcemia manifested as recurrent acute pancreatitis. A 47-year-old male visited emergency room complaining of epigastric pain and nausea in July 2022. There was epigastric tenderness and laboratory tests found amylase 925U/L(22-95), lipase 2273U/L(0-67), calcium 18.3mg/dL(8.8-10.6), phosphate 2.6mg/dL(2.5-4.5) and creatinine 1.67mg/dL(0.61-1.20). Abdomen CT was performed without contrast due to acute kidney injury, and there was focal edematous change in pancreatic tail, so it was reasonable to diagnose acute pancreatitis. (Figure 1) He said he hasn't been drinking recently, except for only a can of beer a week ago. There was no evidence of biliary stone on abdomen CT. Then, we focused on the possibility of hypercalcemia-induced acute pancreatitis. Reviewing his past history, he came to hospital every year for acute pancreatitis from 2020 and was accompanied by hypercalcemia, but it was impossible to evaluate due to follow-up loss every time. Further evaluation of hypercalcemia found iPTH 1040.0pg/mL(12.0-88.0), 25(OH) vitamin D 14.9ng/mL(30-100), and 24-hour urine calcium 280mg/day(<175). On thyroid ultrasonography, well-defined hypoechoic mass measuring 1.5x2x2.5cm below the Lt. thyroid lobe was present (Figure 2), and Tc-99m sestamibi scan & SPECT confirmed hyperfunctioning parathyroid gland in the left lower neck. (Figure 3) Sella MRI was performed to rule out multiple endocrine neoplasia, and there was no evidence of pituitary mass. With hydration and intravenous pamidronate, the last laboratory tests were calcium 12.7mg/dL(8.8-10.6) and amylase 217U/L(22-95). If pancreatitis improves, we consider to operate the parathyroid adenoma. We recommend that patients with suspected acute pancreatitis have their serum calcium levels checked routinely, even if they are asymptomatic associated with hypercalcemia. And the possibility of parathyroid adenoma needs to be considered in patients with hypercalcemia who are repeatedly hospitalized for acute pancreatitis.



Figure 1. Abdominal computed tomography revealed edematous changes in the tail of the pancreas, suggesting acute pancreatitis.



Figure 2. Thyroid ultrasonography displayed a well-defined hypoechoic mass measuring 1.5x2x2.5cm in the Lt. thyroid, possibly parathyroid adenoma

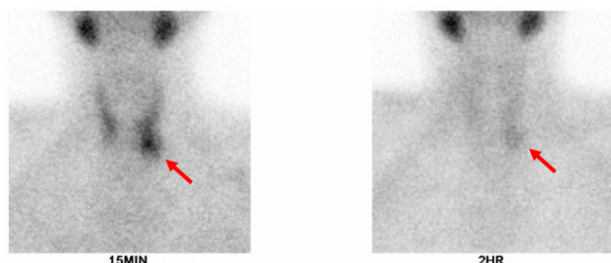


Figure 3. (Left) Tc-99m sestamibi scan and (Right) Tc-99m sestamibi SPECT showed Lt. hyperfunctioning parathyroid gland.

