

## A case of parathyroid adenoma presented as recurrent pancreatitis

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**Background:** Acute pancreatitis is known as a critical medical disease. Usually, mechanical ampullary obstruction can cause acute pancreatitis. Other risk factors are alcohol, smoking, drugs, infection, trauma, congenital abnormality, vascular, genetic disorder, history of post-endoscopic retrograde cholangiopancreatography, and metabolic disease including hyperlipidemia and hypercalcemia. Here we discuss about parathyroid adenoma related hypercalcemia induced recurrent acute pancreatitis. **Case:** A 59-year old male patient admitted to gastroenterology department for acute pancreatitis. He had suffered recurrent episodes of acute pancreatitis with unknown etiology for twice. Although the second episode appeared after drinking heavily, the first episode was unrelated to drinking. Despite hypercalcemia (11.4mg/dL) at first admission, it remained unnoticed and did not receive medical attention. During the second hospitalization, we checked parathyroid hormone and vitamin D. Parathyroid hormone level and 1 $\alpha$ ,25(OH) $_2$ -vitamin D level was within normal range. TC-99m MIBI parathyroid scan revealed parathyroid adenoma which showed slightly increased residual uptake at the right lower pole in 120 min delayed image. The patient who experienced recurrent pancreatitis without common risk factor needs more intensive investigation for cause of pancreatitis. Metabolic conditions giving rise to pancreatitis are 10-20%. Hypercalcemia plays a role as incapacitating cellular defense mechanisms and may provoke trypsinogen activation. It can lead to acinar necrosis and release activated proteases into intra-abdominal space, and also affecting surrounding acinar cells so the vicious cycle begins. Hyperparathyroidism can cause hypercalcemia resulting acute pancreatitis 10-20 times more often than in general population. The majority of primary hyperparathyroidism are parathyroid adenoma. If a patient has hypercalcemia, parathyroid scan may help to identify the reason for calcium elevation even without high level of parathyroid hormone like in this case. **Conclusion:** In case of pancreatitis without specific causes, hypercalcemia possible due to parathyroid adenoma or other malignancies should be considered.

## Clinical characteristics of sepsis patients who were treated with CRRT

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**Background:** Soluble inflammatory mediators are known to exacerbate sepsis-induced acute kidney injury (AKI). Despite the frequent use of continuous renal replacement therapy (CRRT) in the management of sepsis-induced AKI, predictor of mortality remain unclear. **Methods:** We enrolled 337 patients who were treated with CRRT due to sepsis at the Presbyterian Medical Center intensive care unit from 2010 to 2014 in the study. We divided these patients into two groups (survivors vs non-survivors) according to 28-day all-cause mortality, compared their clinical characteristics, and analyzed the predictors of survival. **Results:** The study included 212 men and 125 women, with a mean age of 67 years (range, 21-92 years). When we compared clinical characteristics of survivors (n=212) and non-survivors (n=125), no differences were identified, with the exception of age, total bilirubin, platelet count, and red blood cell distribution width (RDW). Survivors were younger (64 $\pm$ 14 vs 69 $\pm$ 12 year,  $p=0.001$ ) and had high platelet count (180  $\times$  103/ mL vs 134  $\times$  103/ mL,  $p<0.01$ ) than non-survivors. However, survivors had low RDW (14.99 $\pm$ 2.1 vs 16.17 $\pm$ 3.3,  $p<0.01$ ) and low total bilirubin (1.04 $\pm$ 1.45 vs 2.7 $\pm$ 6.13,  $p<0.01$ ) than non-survivors. In multivariate logistic regression analysis, age, platelet count and RDW were assessed as prognostic factors to predict 28-day all-cause mortality in sepsis patient who needed CRRT. **Conclusion:** Age, platelet count and RDW could be predictors for 28-day all-cause mortality in sepsis patients with CRRT.