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### Case Report

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## Primary Hyperparathyroidism and Acute Pancreatitis

Hector Del-Río Zanatta\*, Alexis Zambrano-Zambrano, Rene Castañeda-Flores, José Carlos Rodriguez-Gonzalez, Deyanira Álvarez-Camargo, Diana Valle and Luis Montiel-López

Department of Internal Medicine, National Medical Center Mexico City, Mexico

#### ABSTRACT

Hyperparathyroidism is a cause of hypercalcemia and is a rare etiology of acute pancreatitis. The study of a patient with this association is presented below.

#### \*Corresponding author

Hector Del-Río Zanatta, Félix cuevas 548, Del Valle Sur, 03104, Benito Juárez, Mexico City, Mexico.

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#### Introduction

Primary hyperparathyroidism is a common endocrine disorder of calcium metabolism characterized by hypercalcemia and elevated or inappropriately normal levels of parathyroid hormone. It is due to benign overgrowth of parathyroid tissue, a single gland in 80% or multiple in 15-20% of cases.

Generally asymptomatic, but potentially symptomatic, resulting in bone mineral loss, kidney stones, and a rare cause of acute pancreatitis, a case with this association is presented below.

Describe the approach to a patient with acute pancreatitis and primary hyperparathyroidism as the definitive diagnosis.

#### **Case Report**

A 42-year-old woman with type 2 diabetes for 5 years on insulin glargine treatment, mixed dyslipidemia on statin treatment, repeated bilateral renal lithiasis managed with lithotripsy plus bilateral double J catheter 7 years ago. No other significant history and denies recent use of other medications. She was assessed for generalized abdominal pain, of moderate intensity, insidious onset located in the epigastrium and radiating to the left flank and hypochondrium, transflctive type. A diagnosis of acute pancreatitis was included (Table 1). Other etiologies are ruled out and elevated calcium is studied. Elevated urinary PTH and calcium levels are obtained. Parathyroid scan with positive result for adenoma. Once the acute condition emerged, the patient is a candidate for a left hemithyroidectomy without complications. In follow-up, favorable evolution.

#### Conclusions

Biliary causes, alcohol use, and drugs reported as cause in about 90% of patients with acute pancreatitis. And they must be ruled out

as a cause, as in this case. Hypercalcemia is a rare cause of acute pancreatitis and is most commonly associated with disorders such as hyperparathyroidism, excessive vitamin D therapy, and total parenteral nutrition. In symptomatic patients with complications related to the high level of parathyroid hormone, surgery is indicated with a favorable long-term outcome.

Laboratories	Hemoglobin 12.4 g/dl, leukocytes 17.13 thousand/ mm3, neutrophils 13.62, lymphocytes 3.51, platelets 243 thousand/mm3, glucose 84 mg/dl, total cholesterol 215 mg/dl, HDL 33.2, LDL 138.9, triglycerides 276 mg/dl, BUN 14 mg/ dl, creatinine 0.73 mg/dl, sodium 142 mEq/L, potassium 4 mEq/L, chlorine 114 mEq/L, calcium 11.4 mg/dl, phosphorus 2.7 mg/dl, magnesium 2.05 mg/dl, TSH 0.954 mIU / L, t4t 5.07, t4 1.21, t3t 40.0, t3f 1.98, parathyroid hormone 255, alt 42, ast 41, albumin 3.6, alkaline phosphatase 241, ggt 203, total protein 6.1, total bilirubin 0.67, indirect 0.43, direct 0.24, amylase 505, lipase 2348, Ca 19-9 27.7, calcitonin 2.0, total bone densitometry T and Z score -1.0, urinary calcium 464 mg/24 h, volume 1600, urinary creatinine 689.28.
CT scan of abdomen	Pancreatitis with peripancreatic involvement and area of necrosis focused on bodies of the pancreas (Baltazar D). Right xanthogranulomatous pyelonephritis. Bilateral renal lithiasis.
Neck ultrasound	Left middle parathyroid gland with increased dimensions. Left thyroid nodule TI-RADS 4 (moderately suspicious). Risk of malignancy from 5.1 to 20%.
Neck and chest spectra with MIBI- TC99M	Diffuse goiter, positive for left parathyroid adenoma. The maximum concentration is located in a left tracheal nodule, attached to the posterior face of the lower pole of the left lobe, measuring 14x5x 9 mm.



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