

## Letter to the Editor

### **Primary Hyperparathyroidism and Pancreatitis: an Uncommon Cause of Pancreatitis**

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Sir, parathyroid gland is an important small endocrine gland in human beings that play important role in calcium homeostasis. Primary hyperparathyroidism is an important endocrine disorder of parathyroid gland. The classical symptoms of hyperparathyroidism include kidney stones, gastrointestinal and bone manifestation (1). However, the clinical hyperparathyroidism is not common and usually a difficulty in diagnosis (1).

Due to the disturbance of calcium metabolism, the somatic manifestation of hypercalcemia including abdominal pain, nephrolithiasis, osteopenia, and mental status changes can be the complaints in clinical cases (2). However, due to the advent in automated clinical chemistry technology, the serum calcium is widely determined and this helps earlier detect the primary hyperparathyroidism before over clinical manifestation (1).

Focusing on the gastrointestinal manifestation of primary hyperparathyroidism, there are many possible clinical signs and symptoms. The unexplained abdominal pain is the most symptoms<sup>1</sup>. The cause of the pain is usually due to the constipation, which is due to the reduction in neuromuscular excitability by high calcium

levels (3). In addition, the incidence of peptic ulcer disease, which can result in abdominal pain, seems to be increased in the patients with hyperparathyroidism (3).

Of several hyperparathyroidism induced gastrointestinal disorders, pancreatitis is a rare presentation that can be easily under diagnosed. It is reported that the incidence of pancreatitis in patients with primary hyperparathyroidism is about 1.5% and is believed to be the result of hypercalcemia (3 - 4). Classically, the signs and symptoms of pancreatitis in primary hyperparathyroidism are not different from those of general cases (3). However, pancreatitis can be a sole presentation of primary hyperparathyroidism without any other previous signs and symptoms of hypercalcemia. For those cases, the only one evidence is elevated blood calcium level which can be detected by clinical chemistry test. An interesting clue indicating the correlation between acute pancreatitis and primary hyperparathyroidism is fast and surprising clinical recovery of patients with pancreatitis and hyperparathyroidism after surgical removal of the parathyroid gland (5). However, due to the limited evidences, there

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is no verification on the exact pathogenesis of pancreatitis in primary hyperparathyroidism (4). Hence, it is recommended that the determination of serum calcium in case of repeated acute pancreatitis might be useful for the early detection of occulted primary hyperparathyroidism. However, in cases with abnormal serum calcium level, a complete laboratory investigation on other endocrine and autoimmune disorder should be done. At least, a thyroid assessment is recommended since the abnormal serum calcium level can also be the manifestation of thyroid disorder. In addition, since the condition of pancreatitis in primary hyperthyroidism can be chronic, the investigation of other complications such as diabetes mellitus is useful.

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