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## LETTER TO THE EDITOR

### Severe serum amylase elevation, with only chronic kidney disease

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Increased levels of serum amylase have been reported in patients with chronic kidney disease (CKD).<sup>1</sup> But this elevation is not expected to exceed 2–3 folds of the normal serum levels. More than 2–3 folds of normal levels of serum amylase should firstly considered as pancreatitis.<sup>2</sup> This report is about an elderly patient who has severely elevated serum amylase levels.

An 80-year-old male patient with mild abdominal pain and heartburn complaint was referred to our clinic by nephrology clinic. It was realized that the patient has been followed-up with CKD by nephrology for 5 years and he did not have any renal replacement treatment. There was no abdominal rigidity and no tenderness at midline by palpation. Other examination findings shortly were normal heart and lung auscultation, blood pressure: 100/600 mmHg, pulse: 74/min, temperature: 36.6°C. And lab results were white blood cell (WBC): 3510/mm<sup>3</sup>, hemoglobin (Hb): 9.06 g/dL, platelet (Plt): 42,000/mm<sup>3</sup>, urea: 144 mg/dL, creatinine: 6.89 mg/dL, aspartate aminotransferase (AST): 27 IU/L, alanine transaminase (ALT): 31 IU/L, amylase: 14,800 IU/L (25–100), lipase: 61 IU/L (13–60), triglyceride: 316 mg/dL, parathyroid hormone (PTH): 241 pg/mL (11–79). Macroamylasemia was not detected. Abdominal ultrasound examination was reported as normal. Alcoholism and diabetes were not present in his history. In a brief, there was no clinical or lab evidence that supports pancreatitis except severe amylase elevation. In the presence of these findings, acute pancreatitis was not

considered in the patient. The reason of elevation of serum amylase level was evaluated as about the low excretion in urine amylase because of CKD.

Serum amylase is a standard test used in the diagnosis of acute pancreatitis in practice.<sup>3</sup> However, despite high specificity at diagnosis the sensitivity of the test is low. In addition to kidney failure, amylase level elevation could also be detected in macroamylasemia, pregnancy, parotitis, and esophageal perforation.<sup>4</sup> As a result, when high amylase levels are detected, if the pancreatitis findings are uncertain, CKD should be kept in mind.

#### Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

#### References

1. Lee S-Y, Lee KT, Kang TW, et al. [Pancreatic enzyme elevations in Korean chronic renal failure patients]. *Korean J Gastroenterol*. 2005;45(2):125–129.
2. Wu BU and Banks PA. Clinical management of patients with acute pancreatitis. *Gastroenterology*. 2013;144(6):1272–1281.
3. Hecker M, Mayer K, Askevold I, et al. [Acute pancreatitis]. *Anaesthesist* 2014;63(3):253–263.
4. Lippi G, Valentino M, Cervellin G. Laboratory diagnosis of acute pancreatitis: in search of the Holy Grail. *Crit Rev Clin Lab Sci*. 2012;49(1):18–31.