

Acute Pancreatitis Associated With *Campylobacter jejuni* Enteritis: A Case Report

Michael C. Peterson^{a, c}, JaNae Besendorfer^b

Abstract

A 62-year-old male developed pancreatitis including elevation of pancreatic enzymes and evidence of pancreatic inflammation on imaging in association with *Campylobacter jejuni* enteritis. Hyperamylasemia in association with *C. jejuni* enteritis has been reported occasionally. Though many reports in the literature are incomplete, to our knowledge, only a single prior report of pancreatitis associated with *Campylobacter jejuni* enteritis included radiographic evidence of pancreatic inflammation.

Keywords: Pancreatitis; *Campylobacter jejuni*

Introduction

Many infectious agents are associated with acute pancreatitis, including viruses, fungi, parasites, and enteric bacteria [1]. A study reported by Tositti et al [2] found that while hyperamylasemia is relatively common in patients with acute gastroenteritis (10.2 % of 507 consecutive patients), overt pancreatitis in these patients was a rare occurrence. Elevation of pancreatic enzymes without mention of overt pan-

creatic inflammation has been reported in association with *Campylobacter jejuni* infection in a small number of patients [3-7]. To our knowledge, only a single case of acute pancreatitis with imaging evidence of pancreatic inflammation has been reported previously [8]. We report a case of acute pancreatitis with computed tomography (CT) evidence of pancreatic inflammation associated with *C. jejuni* enteritis.

Case Report

A 62-year-old male presented with a history of loose stools, nausea, vomiting, fatigue, and rapid weight loss. He had abdominal pain and tenderness centered in the epigastrium but had a non-surgical abdomen. He denied black or bloody stools. His past medical history was remarkable for hypertension, glucose intolerance, pancreatic insufficiency, and cholecystectomy. Temperature was not elevated. No significant postural changes in blood pressure were noted, but pulse increased from 67 to 90 going from supine to standing.

Laboratory findings included a serum amylase level of 358 U/L (normal range 28 - 100 U/L) and lipase level of 637 U/L (normal range 16 - 63 U/L). Sodium and potassium were normal. BUN was 25.0 mg/dL (normal range 6 - 23 mg/dL) and creatinine was 1.50 mg/dL (normal range 0.4 - 1.3 mg/dL). Peripheral white count, hematocrit and platelets were normal.

The patient was admitted to the hospital and a CT scan of the abdomen was performed, which showed evidence of mild, acute pancreatic inflammation. No cause of pancreatitis was identified. He was treated with supportive measures including IV fluids and nausea and pain medications. Amylase and lipase levels improved daily. Because diarrhea persisted, a stool culture was performed and yielded *C. jejuni*. The patient's improvement by the time culture results were available was satisfactory enough that he was not started on antibiotics.

Discussion

Common manifestations of *C. jejuni* enteritis are diarrhea,

Manuscript accepted for publication January 27, 2012

^aDivision of General Internal Medicine, University of Utah School of Medicine, Salt Lake City, UT and Cardiac Hospitalist Service, Central Utah, Clinic, Provo, UT (mcp), USA

^bTufts University School of Medicine, Boston, MA, (jb), USA

^cCorresponding author: Michael C. Peterson.
Email: michael.peterson@hsc.utah.edu

doi:10.4021/jmc541w

abdominal pain or cramps, malaise, nausea, vomiting, anorexia, fever, chills and sweats and gross blood in stool. In a study involving 188 hospitalized patients with *C. jejuni* enteritis, pancreatitis (as determined by elevated serum amylase or lipase values) was found in 11 patients [6]. The mechanism responsible for elevated amylase levels in bacterial enteritis is not completely understood and may be the result of several different mechanisms. It has been reported in the case of campylobacter cholecystitis that the organism can gain access to the biliary tract [9]. Immune or perfusion injury may also be involved in some patients. It is possible that patients with and without imaging evidence of inflammation in reports of *C. jejuni* associated pancreatitis simply represent a continuum of very mild to more severe disease. However, there are patients who do appear to have elevated pancreatic enzymes without typical symptomatic or imaging evidence of pancreatitis as pointed out by Tositti et al. [2]. It seems likely that these are cases of hyperamylasemia without pancreatitis per se. In this setting, hyperamylasemia associated with bacterial enteritis might be analogous to the occurrence of elevated amylase that sometimes happens with nonspecific bowel injury such as in bowel obstruction or perforation.

This case is an example of the infrequent occurrence of pancreatitis in persons with *C. jejuni* enteritis. At least one case of pancreatic edema associated with *C. jejuni* enteritis has been reported previously [8]. Other previously reported cases of pancreatitis associated with *C. jejuni* enteritis [2-7] showed elevated pancreatic enzymes without mention of pancreatic inflammation on imaging.

Grant Support

None.

Conflict of Interest

None.

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