

Ertapenem-Induced Acute Pancreatitis in a Cirrhotic Patient

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TO THE EDITOR

Drugs are an etiologic factor in acute pancreatitis with an estimated incidence of 0.1%-2%.¹ Although acute pancreatitis is a well-known side effect of some medications such as azathioprine, furosemide, and steroids, it rarely occurs with other drugs. We present a case of acute pancreatitis related to ertapenem. To our knowledge, ours is only the second report of ertapenem-induced acute pancreatitis.²

CASE REPORT

A 54-year-old male was admitted to our hospital with dysuria, fever, and fatigue. He had been diagnosed with chronic hepatitis B-related decompensated cirrhosis and portal vein thrombosis 3 years prior. His baseline laboratory parameters were hemoglobin of 10.7 g/dL, alanine aminotransferase of 25 U/L, aspartate aminotransferase of 44 U/L, albumin of 2.5 g/dL, amylase of 86 U/L, and C-reactive protein of 160 mg/L. Urine analysis showed pyuria, and urine culture revealed *Escherichia coli*. Ertapenem treatment was started. The patient developed severe epigastric pain and nausea on the second day of ertapenem treatment. His amylase level increased to 1,236 U/L, and acute pancreatitis was diagnosed. Ertapenem was the only potential etiology of the acute pancreatitis because the patient had no other potential causes such as alcohol use, bile stone or sludge, or hypertriglyceridemia. Treatment with ertapenem was stopped immediately, and intravenous fluid treatment was started. Ceftriaxone was administered to treat

his urinary infection. The patient's epigastric pain regressed, his amylase level decreased, and he started to eat by mouth without any complications attributable to acute pancreatitis.

DISCUSSION

The liver is an essential organ for the metabolism and clearance of various drugs. In patients with cirrhosis, all aspects of drug metabolism including absorption, binding to plasma proteins, metabolism, and biliary extraction are affected,³ and the pancreas, as well as other organs, may become vulnerable. Although the clinical course and prognosis of acute pancreatitis in patients with cirrhosis are similar to patients without cirrhosis according to the limited information in the literature, care in the choice of drugs is important in cirrhosis because of the potential adverse effects.

REFERENCES

1. Nitsche CJ, Jamieson N, Lerch MM, Mayerle JV. Drug induced pancreatitis. *Best Pract Res Clin Gastroenterol*. 2010 Apr;24(2): 143-155. doi: 10.1016/j.bpg.2010.02.002.
2. Martínez-Granados F, Navarro JN, Estrada JL, Martínez-Lazcano MT, Lluís-Casajuana F, Ordovás-Baines JP. Ertapenem-induced acute pancreatitis in a surgical elderly patient. *Pharm World Sci*. 2008 Jun;30(3):278-280.
3. Verbeeck RK. Pharmacokinetics and dosage adjustment in patients with hepatic dysfunction. *Eur J Clin Pharmacol*. 2008 Dec;64(12):1147-1161. doi: 10.1007/s00228-008-0553-z.