

Tigecycline induced acute pancreatitis: Suspicion is the first step in diagnosis

 Alpaslan Tanoğlu¹,  Eylem Çağiltay²

¹Health Sciences University, Sancaktepe Sehit Prof. Dr İlhan Varank Training and Research Hospital, Department of Internal Medicine and Gastroenterology, İstanbul, Turkey

²Health Sciences University, Sultan Abdulhamid Han Training and Research Hospital, Department of Endocrinology and Metabolism, İstanbul, Turkey

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Dear Editor,

Acute pancreatitis is an inflammatory event of the pancreas which may affect seriously all other tissues and organ systems (1-3). Generally, acute pancreatitis is induced by alcoholism or gallstones. However pathogenetic mechanisms of drug induced pancreatitis are not clearly understood (4). A minocycline derivative, tigecycline is a glycylycline class of antibiotic which is structurally similar to the tetracyclines. It has perfect tissue and organ distribution and favorable microbial coverage, including many kind of Gram-positive and Gram-negative bacteria and also anaerob agents (5,6). Tigecycline's side-effect profile is similar to the tetracyclines (7). Pancreatitis is a well-known adverse effect of tetracyclines (8). However, tigecycline-induced pancreatitis is an uncommon side-effect. We report here a rare case of tigecycline-induced pancreatitis during the treatment of a diabetic food infection.

A 64-year-old man was admitted to hospital because of diabetic food infection requiring glisemic control and antibiotherapy. He had a history of cholecystectomy operation nearly 5 years ago. His medical history consisted of no alcohol consumption for five years. At the beginning of his diabetic food treatment, teicoplanin 400 mg one per day and imipenem 500 mg four times per day intravenous (iv) injection began empirically. Repetitive diabetic food wound culture was taken and they revealed acinotobacter spp. enfection that was sensitive to colistin, ceftasidime and doxycycline. The antibiotherapy was switched to tigecycline 100 mg iv infusion, then 50 mg iv twice a day and colistin iv 150 mg twice a day. 9 days after the beginning of this therapy, gastro-intestinal symptoms, such as severe epigastric abdominal pain, loss of appetite, nausea and vomiting, were started. Serum

amylase (761 U/L, 17-115 normal range) and lipase (426 U/L, 7-60 normal range), aspartate aminotransferase (251 U/L, normal <40), alanine aminotransferase (263 U/L, normal <40) levels and leucocytes ($11.9 \times 10^3/\text{mm}^3$, 4.0–10.5 normal range) counts were increased. Abdominal ultrasonography revealed enlarged edematous pancreas and he was diagnosed as 'acute pancreatitis'. Oral nutrition was stopped, he was hydrated intravenously and fed with parenteral nutrition. Computed tomography imaging could not be performed because of chronic renal failure and elevated creatinine levels. Tigecycline-induced pancreatitis was suspected and the drug was ceased. Then cefoperazone sulbactam and colistin therapy continued. Abdominal pain and vomiting resolved allowing the patient to receive oral alimantation after few days. Amylase and lipase values were decreased to normal levels within a few days. After few days with successful medications, the patient was discharged in a safe condition.

Acute pancreatitis is an important life-threatening pancreatic disease (1,3) Many kind of drugs or toxins may cause acute pancreatitis (4). In the way to exact diagnosis of drug-induced acute pancreatitis, the first step is being suspicious from the currently used drugs. Tigecycline is a globally used wide spectrum antibiotic which is used for many kinds of infectious circumstances (8). It has generally has a safe side effect profile and its side-effect range is similar to the tetracyclines (7). In this current case, we used Naranjo adverse drug reaction probability scale for estimating the probability of adverse effect and a score of 5 was reached. Thus we suggest that a probable relationship between tigecycline and acute pancreatitis is existing (9).

Drug induced acute pancreatitis is an important and sometimes life threatening condition which should be diagnosed early and treated properly. Attention should be given to stop the treatment with tigecycline in patients with acute pancreatitis since it can cause life-threatening consequences.

Keywords: Tigecycline, acute pancreatitis, adverse effect

ETHICAL DECLARATIONS

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