

case report

Sertraline and acute pancreatitis: a case-report

Sertralina e pancreatite aguda: relato de caso

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Abstract Acute pancreatitis is a severe disease with considerable morbidity and mortality. Many risk factors are causally related to acute pancreatitis. In this report, a case of acute pancreatitis with possible causal relationship with the use of a selective serotonin reuptake inhibitor, sertraline, will be discussed. After one month of treatment with sertraline, a female patient, 55 years-old, developed a severe abdominal pain and showed a serum amylase elevation. She was admitted to the hospital and the use of sertraline was interrupted. After that, the symptoms remitted and the serum amylase level returned to normal. Because of the potential severity of this disease and the widespread use of sertraline, this association should be reminded when investigating possible causes for acute pancreatitis.

Keywords *Case report. Acute pancreatitis. Sertraline. Selective serotonin reuptake inhibitors.*

Resumo A pancreatite aguda é uma patologia grave e com considerável morbidade e mortalidade. Vários fatores são apontados como possíveis causas de pancreatite aguda. Neste relato, será apresentado um caso de pancreatite aguda com possível associação causal com um inibidor seletivo de recaptura de serotonina: sertralina. Após um mês de tratamento com sertralina, uma paciente do sexo feminino, 55 anos, desenvolveu forte dor abdominal e elevação da amilase sérica. Após internação e retirada da sertralina, seus sintomas remeteram e os níveis de amilase voltaram ao normal. Pela potencial gravidade do quadro e pelo amplo uso desta medicação, tal associação deve ser lembrada em investigações de casos de pancreatite aguda.

Descritores Relato de caso. Pancreatite aguda. Sertralina. Inibidor seletivo de recaptura de serotonina.

Introduction

Acute pancreatitis is a severe disease with considerable morbidity and mortality. The incidence of acute pancreatitis is rising in Western countries.¹ Gallstones and alcohol consumption are the most important risk factors. Other risk factors include hyperlipidemia, hypercalcemia and trauma. In 10-25% of the patients with acute pancreatitis, no obvious risk factors are present.² Drugs are also associated with the event and pathogenesis of drug-induced acute pancreatitis has not been yet completely clarified.

Case-Report

A previously healthy 55-year-old woman was admitted to treatment for depression. She had quit smoking for five months and developed depressive symptoms (anhedonia, sexual im-

pairment, depressive humor and weight loss). For several years before admission she has been taking methylodopa and thiazide diuretics for hypertension. She had no evidence of biliary tract and endocrine diseases or alcohol abuse.

She was treated with paroxetine, mirtazapine and diazepam without significant improvement of her depressive symptoms. These drugs were interrupted and the patient started to take sertraline 50 mg/day. One month later, the depressive symptoms started to improve and she was kept on sertraline, methylodopa and thiazide diuretic for three months. Suddenly she developed severe abdominal pain and was admitted to an emergency room. Laboratory results included: hemoglobin 13.1 g/dl (normal 10-12 g/dl), leucocytes 9.2×10^3 u/mm³ (normal $5-10 \times 10^3$ u/mm³), sodium 150 mmol/l (normal 140-148 mmol/l), potassium 3.5 mmol/l (normal 3.4-5.3 mmol/l), calcium 7.8

mmol/l (normal 8.5-10 mmol/l), aspartate transaminase 54 U/l (normal 15-37 U/l), alanine transferase 100 U/l (normal 30-65 U/l), alkaline phosphatase 131 U/l (normal 50-136 U/l) and serum amylase 708 U/l (normal 29-115 U/l). Abdominal ultrasound revealed a swollen pancreas.

Methyldopa is a widely used antihypertensive but has a high incidence of adverse effects.³ Acute pancreatitis has been described in association with methyldopa since 1978.⁴⁻⁶ The majority of the patients experience a positive rechallenge reaction.

Acute pancreatitis secondary to the thiazides group of diuretics has been reported by many authors.^{7,8} However, sometimes, this group of drugs is not included among the drugs which may produce acute pancreatitis.⁹

The patient described in this report had taken methyldopa and thiazide diuretics in association for many years without any side-effects, before the introduction of sertraline. Although the two antihypertensive drugs has been related to acute pancreatitis, sertraline was the first drug that was discontinued and two days later the serum amylase dropped to 62 U/l (normal 29-115 U/l) and she recovered completely. She was under observation for four months without taking any antidepressants and the depressive symptoms did not recur.

Discussion

Most evidence of association between drugs and acute pancreatitis is based on case reports.¹⁰

The World Health Organization (WHO) received a total of 2749 reports of drug-associated acute pancreatitis between 1968 and 1993. The most frequently reported drugs were: angiotensin-converting enzyme inhibitors (n=209), valproate (n=219), H2 receptor blockers (n=127), sulindac (n=121), aza-

thioprine (n=73), genfibrozil (n=72), lovastatin (n=72), pentamidine (n=62) and didanosine (61)¹¹.

In the specific literature, drug-induced acute pancreatitis is labeled as definite when confirmed by computed tomography, laparotomy or autopsy. The diagnosis is also considered definite when positive findings on ultrasound are combined with abdominal pain and an elevated level of serum amylase or lipase. Probable diagnosis is labeled when two of the following three criteria are present: 1) positive findings on ultrasound examination, 2) abdominal pain and 3) elevated serum amylase or lipase. This patient had abdominal pain, increased serum amylase and positive findings on ultrasound, and therefore, a definite diagnosis.

Causality assessment between drug intake and development of acute pancreatitis is based on the temporal relationship, effect of dechallenge, rechallenge and the presence of other established causes (gallstones or alcohol abuse).¹⁰

The patient is still taking methyldopa and diuretics and she has no symptoms of pancreatitis. The patient had no other established causes like gallstones or alcohol abuse.

There are few reports of acute pancreatitis associated with psychiatric drugs. The most frequently described drugs are clozapine¹² and valproate. Valproate can cause a necro-hemorrhagic severe form associated with high mortality.¹³ The association between SSRI and acute pancreatitis is recognized by WHO, but so far there has been only one published case reporting acute pancreatitis in a Norwegian patient who was taking sertraline.¹⁴

In this case, besides the drugs, there were no other known risk factors for acute pancreatitis. The prompt recovery after the interruption of sertraline seems to be a strong evidence that her pancreatitis was induced by this drug.

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