



## Spiramycin-associated Acute Pancreatitis: Cause or Coincidence?

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### Abstract

*So far, spiramycin-associated acute pancreatitis has not been reported in literature. In this letter, it was presented that A 63-year-old female subject was experienced acute pancreatitis 4 days after taking spiramycin for therapy of dental infection, as an unusual approach. She was prescribed spiramycin tablet for dental infection, and in 4th day, she admitted to emergency service with severe epigastric pain with radiation to the flank and back. Her magnetic resonance (MR) cholangiography and upper abdominal MR imaging revealed acute edematous pancreatitis without any gallstone. As a macrolide antibiotic, clinicians should be aware of potential side effects of spiramycin including acute pancreatitis.*

**Keywords:** Spiramycin, adverse effect, acute pancreatitis

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**Spiramycin-associated Acute Pancreatitis: Cause or Coincidence?**

Acute pancreatitis is an inflammatory course of action of the pancreas which affects even more seriously regional tissues or organ systems. Most cases of acute pancreatitis are closely associated with alcoholism or gallstones, but the pathogenetic mechanisms are not entirely understood [1]. Spiramycin is a macrolide antibiotic which used to treat toxoplasmosis and other various bacterial infections [2]. It has been reported to be associated with allergic situations and some other adverse effects [3,4]. So far, spiramycin-associated acute pancreatitis has not been reported in literature.

A 63-year-old femalesubject was experienced acute pancreatitis 4 days after taking spiramycin for therapy of dental infection, as an unusual approach. Her previous medical history revealed essential hypertension and diabetes mellitus Type 2, and she had been using cilazapril 5 mg tablet, metformin 850 mg tablet and gliclazide 30 mg tablet and acetylsalicylic acid 100 mg tablet for five years. Her family history was negative. She denied ever using alcohol, smoking, any herbal or folk remedies, and over-the-counter agents. She was prescribed spiramycin tablet for dental infection, and in 4th day, she admitted to emergency service with severe epigastric pain with radiation to the flank and back. Her physical examination revealed abdominal tenderness and muscular guarding. White blood count was  $10.590 \times 10^3/\text{uL}$  ( $4.0\text{-}10.0 \times 10^3/\text{uL}$ ), C-reactive protein was 144 mg/dl (0-5 mg/dl), amylase was 418 U/L (28-100 U/L), lipase was 434 U/L (13-60 U/L), serum glucose was 165 mg/dl (74-106 mg/dl), AST was 20 mg/dl (0-32 mg/dl), serum LDH was 325 mg/dl (135-214 mg/dl), calcium was 7.80 mg/dl (8.6-10.2 mg/dl), albumin was 2.90 g/dl (3.5-5.2 g/dl), triglyceride was 120 mg/dl (150-450 mg/dl). Her magnetic resonance (MR) cholangiography and upper abdominal MR imaging revealed acute edematous pancreatitis without any gallstone (Figure 1). In the light of clinical, biochemical and radiological findings she was diagnosed as 'acute pancreatitis' and hospitalized. Oral intake of spiramycin and other medications were stopped and fluids were given through veins. Within few days her symptoms were relieved and biochemical parameters were became normal and she discharged. To date, followed-up period of her displayed no complication or recurrence of acute pancreatitis episode.

Spiramycin is a commonly prescribed macrolide antibiotic that is used to treat various bacterial infections even in pregnant [2]. Although no reports have shown the possible mechanism of spiramycin related acute pancreatitis, it can be theorized that direct toxic influence of free oxygen radicals on pancreatic beta cells, and metabolic and/or immunologic damage to the pancreatic duct could be the possible mechanisms of spiramycin-associated acute pancreatitis. In our case, the Naranjo adverse drug reaction probability scale was used to estimate the adverse reaction of drug and a score of 5 was reached, suggesting a probable association between spiramycin and acute pancreatitis [5].

As a macrolide antibiotic, clinicians should be aware of potential side effects of spiramycin including acute pancreatitis.

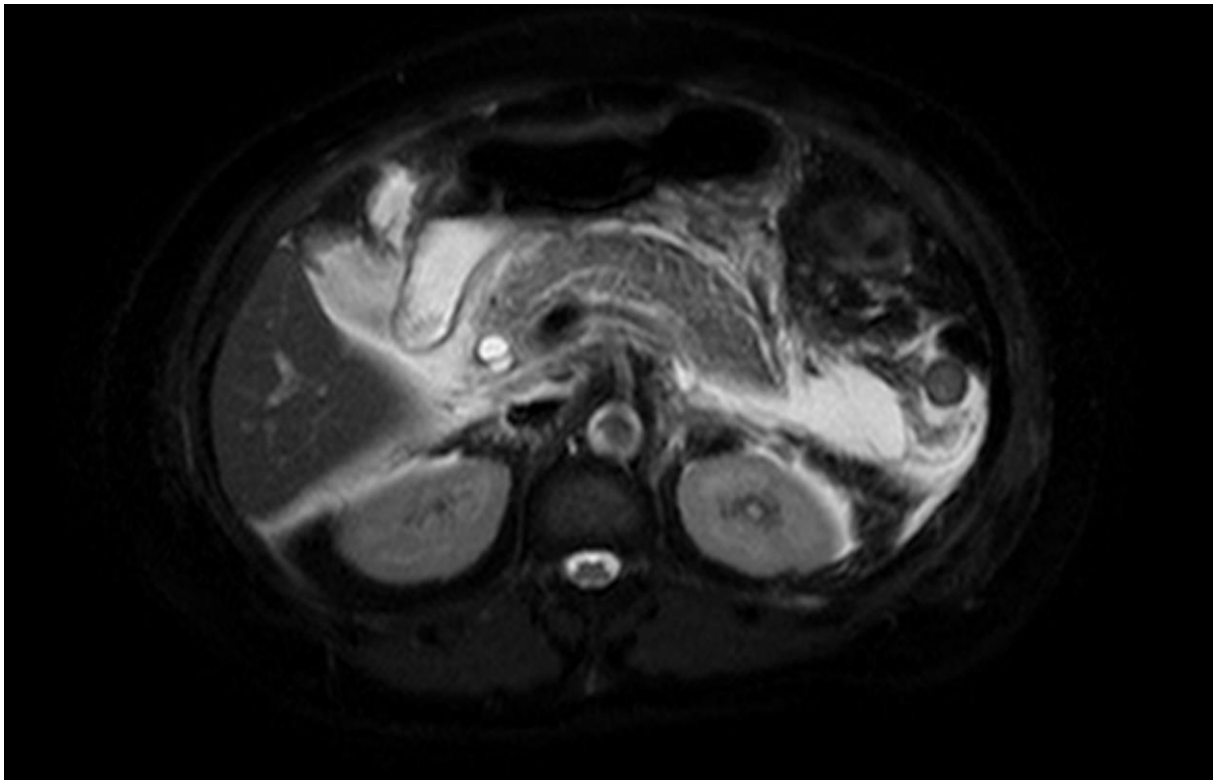


Figure 1. Diffuse edematous and enlarged pancreatitis is seen on magnetic resonance imaging (T2 weighted)

#### Conflict of interests

None to declare.

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