

Clinical Image

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Transmural colon necrosis induced by amoxicillin anaphylactic shockRadu Moldovan^{1*}; Vlad Ichim²¹Forensics Department, Emergency County Hospital "Constantin Opris", Baia Mare, Romania.²Department of Internal Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania.***Corresponding Author: Radu Moldovan**

Emergency County Hospital "Constantin Opris",
Baia Mare, Romania, George Coşbuc 31, Baia Mare
430031, Romania.
Tel: +40788494154; Email: moldo_88@yahoo.com

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Abstract

A 47-year-old female with a documented history of allergies to medicine ingested a 1 gram tablet of amoxicillin for supposed dental pain. After 10 minutes, she began experiencing tongue swelling, throat congestion, shortness of breath, and eventually faints. The emergency medical service that arrived at the site found the patient with no vital signs and started resuscitation. They were able to stabilize the patient, and she was transported to the hospital and admitted to the intensive care unit.

Description

The clinical examination exposed marbled teguments and significant facial edema. Approximately 8 hours after the admission, the patient developed rectal bleeding and macroscopic haematuria. Her laboratory investigations revealed acute renal failure and severe rhabdomyolysis. Stool cultures, including Clostridium difficile toxin testing, were negative. Although proper anaphylactic shock treatment was administered, the patient was increasingly bradycardic and eventually asystolic. Resuscitation efforts were unsuccessful, and the patient died approximately 24 hours after ingesting the amoxicillin.

The macroscopic examination during the autopsy found complete necrosis of mucosa in the rectosigmoid junction and partial necrosis in the descending colon with no changes in the transverse and ascending colon. The autopsy examination of the inferior and superior mesenteric arteries showed no signs of obstruction.

The microscopic examinations confirmed the extended necrosis of the rectosigmoid junction and descending colon with

neutrophilic infiltrate that involved the mucosa, submucosa and muscularis layers together with microthrombi in the capillaries and venules. The histological diagnosis was ischemic colitis with transmural hemorrhagic necrosis of the rectosigmoid junction and descending colon.

Ischemic colitis induced by amoxicillin ingestion has been rarely described. To our knowledge, only 3 other cases were published, and this is the first instance in which the entire thickness of the colon wall was histologically examined and revealed transmural necrosis [1-3]. Although the exact pathogenetic mechanism is unknown, the most likely hypothesis is transient hypotension, causing intestinal hypoperfusion and subsequent ischemia. In our case, no other clinical conditions are likely to have caused the ischemic colitis.

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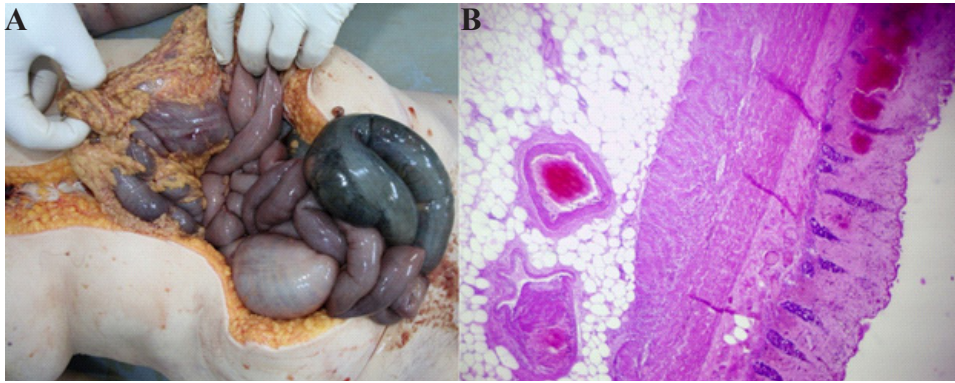


Figure 1: (A) Autopsy - left colon necrosis. **(B)** Microscopy - hemorrhagic necrosis, neutrophilic infiltrate and multiple microthrombi.

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