Images from a fulminant mesenteric artery thrombosis

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The images are related to a fatal and fulminant case, initiating with sudden and unexplained vomiting, in a woman aging 48 years. No relevant previous diseases were referred; apart from a borderline hypertension and hyperlipidemia, both treated not in a regular basis. She was sent in a surgical emergency after a short visit from the family doctor, who ruled out intoxication. The situation deteriorated within the day; from the moment of the onset (2 p.m.) till the death (1:30 a.m. of the next day) she received perfusions, but collapsed just before the midnight, with a dramatic abdominal distension (*Figure 1*). An abdominal computerized angiography was eventually performed, with typical findings of mesenteric thrombosis (*Figure 2*).

The surgeons were unable to intervene due to the profound hemodynamic shock; the corpse underwent forensic examination. The macroscopic image of the colon corresponded with a massive hemorrhagic infarction (*Figure 3*).

The intestinal wall showed profuse hemorrhagic foci (*Figure 4*). Evidence of thrombi and impressive blood stasis was found in the mesenteric vascular bed. The intestinal wall showed as well a high degree of submucosal edema and loss of the glandular structure.

The acute mesenteric ischemia is notorious for its high degree of lethality. Risk factors for arterial mesenteric ischemia include atherosclerosis, hypovolemia, congestive heart failure, recent myocardial infarction, advanced age, and intra-abdominal malignancy. It seems that the situation cannot be treated medically; anticoagulation is indicated immediately upon diagnosis, whereas thrombolytics seem ineffective. The only option remains the surgical one, which has to be performed without hesitation, consisting in the removal of the dead bowel. An end-to-end anastomosis and eventually the endarterectomy of the obstructed artery will logically be part of the surgical options.

Figure 1 Dramatic abdominal distension, leading to death twelve hours after the onset of the complaints.

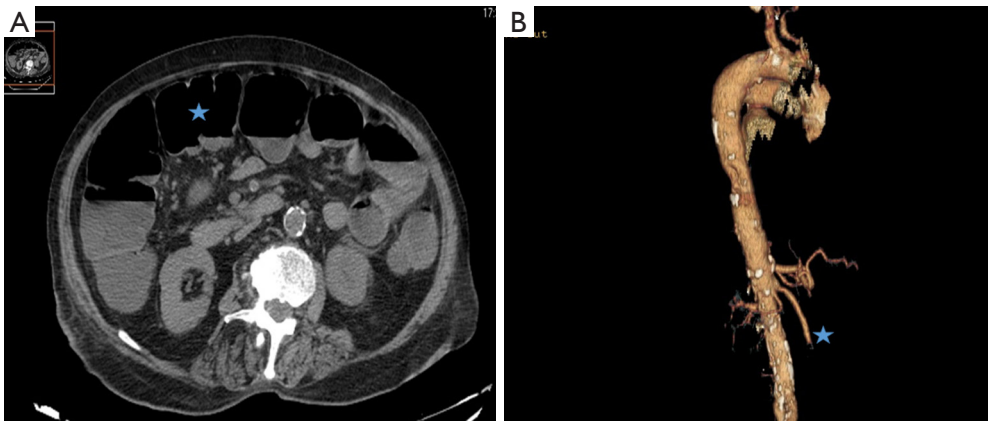

Figure 2 Imaging study of the case. (A) Abdominal computerized tomography (intravenous contrast phase): abdominal aorta contrasted and with non-stenotic calcifications (in the middle, adjacent to the vertebral body). Blue star: distension of the transversal colon with hydroaeric levels. (B) Reconstruction images of the abdominal angiography showed a full stop of contrast uptake in the superior mesenteric artery (blue star).

Figure 3 Massively infarcted colon; autoptic view.

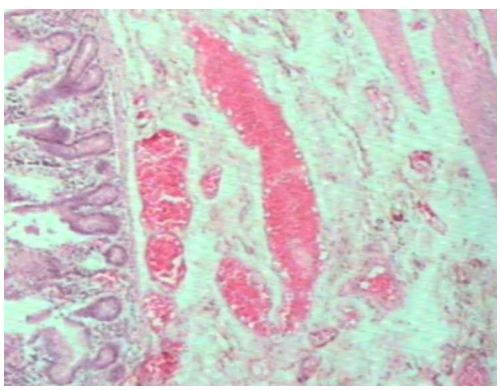

Figure 4 Fresh hemorrhage in the intestinal wall (H/E, 160×).

Acknowledgments

None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Consent was obtained for the use of information and images. The patient's identity has been kept confidential.

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