



Advance in the Management of Acute Mesenteric Ischemia Over the Past 10 Years: A Case Study Demonstration

Ihnatovich I* and Vasilevich A

Belarusian State Medical University, Minsk, Belarus

December 2010 Patient R., 70 years old, admitted to the emergency room 3 h after the onset of severe abdominal pain and vomiting.

History: Right nephrectomy, ischemic heart disease, atrial fibrillation.

Upon admission, the patient's status was of moderate severity. Heart sounds were arrhythmic, blood pressure was 150/80 mmHg. The abdomen was moderately bloating, soft and without peritoneal symptoms. Intestinal peristalsis enhanced. Electrocardiography revealed atrial fibrillation, after abdominal ultrasound examination and fibrogastroduodenoscopy no additional information was obtained. Rectal examination revealed the presence of blood in the feces. Medication carried out, but it was not possible to control the pain syndrome. After 3 h, initial symptoms of peritoneal irritation identified in the lower part of the abdomen. This fact was an indication for laparotomy because of an uncertain diagnosis of peritonitis. Laparotomy revealed bluish-burgundy loops of the jejunum and ileum without normal peristalsis. There were no signs of necrosis of the intestinal wall (Figure 1). Thromboembolism of the Superior Mesenteric Artery (SMA) diagnosed. Exposure of the SMA performed from the anterior approach in the root of the mesentery. Arteriotomy performed in the 2nd segment below the origin of a colic a media (Figure 2). Balloon thromboembolism from the lumen of the SMA performed using 4 Fr Fogarty catheter (Figure 3). As a result, a pulsating central and satisfactory retrograde blood flow obtained. The incision of the arterial wall sutured. The early postoperative period was uneventful. On the 2nd day after the laparotomy and surgical intestinal revascularization, the second look re-laparotomy performed for clinical re-assessment of intestine viability. It established that the small intestine was viable, with normal peristalsis, and has a normal color (Figure 4). Later in the course of the disease, the patient had frequent liquid bowel movements up to 10 times a day, these events exhausted the patient and required additional parenteral nutrition. Abdominal masses appeared in the meso-hypogastric region on the right side. There was an increase in temperature up to 38°C for 5 days. Over time, the frequency of bowel movements decreased, the stool became normal, and the pain syndrome resolved. The abdominal masses significantly decreased in size; the temperature returned to normal. The patient had an episode of intestinal bleeding due to anticoagulation therapy (warfarin). Bleeding was moderate severity, controlled by medication. The patient discharged 17 days after the surgical intestinal revascularization.

OPEN ACCESS

*Correspondence:

Ihar Ihnatovich, Department of Surgical Diseases, Belarusian State Medical University, 220083, Minsk, Dzerzhinskii Avenue, 83, Belarus, Tel: +375 173400254;

E-mail: ini67@inbox.ru

Received Date: 01 Feb 2023

Accepted Date: 03 Mar 2023

Published Date: 07 Mar 2023

Citation:

Ihnatovich I, Vasilevich A. Advance in the Management of Acute Mesenteric Ischemia Over the Past 10 Years: A Case Study Demonstration. Clin Surg. 2023; 8: 3625.

Copyright © 2023 Ihnatovich I. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

March 2020 Patient A, 80 years old, admitted to the emergency room after 1 h a sudden onset of very severe pain in the abdomen.

History: ischemic heart disease, atrial fibrillation.

Upon admission, the patient's status was of moderate severity. On examination, the patient was restless, complains of severe abdominal pain. Heart sounds were arrhythmic, blood pressure was 140/80 mmHg, the abdomen was without peritoneal symptoms. Intestinal peristalsis normal.

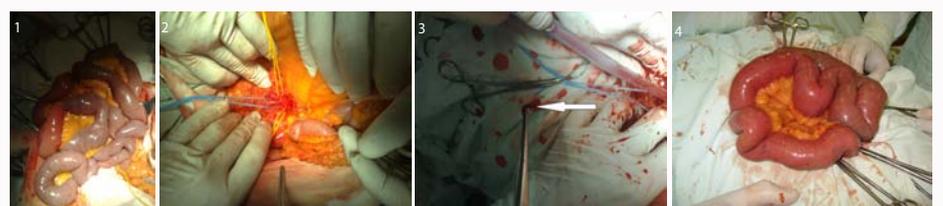


Figure 1: Ischemic small intestine at laparotomy.

Figure 2: Dissected SMA (blue tourniquet) and artery colic a media (yellow tourniquet).

Figure 3: Thrombus removed from SMA (white arrow).

Figure 4: "Second look": view of the small intestine after surgical intestinal revascularization.

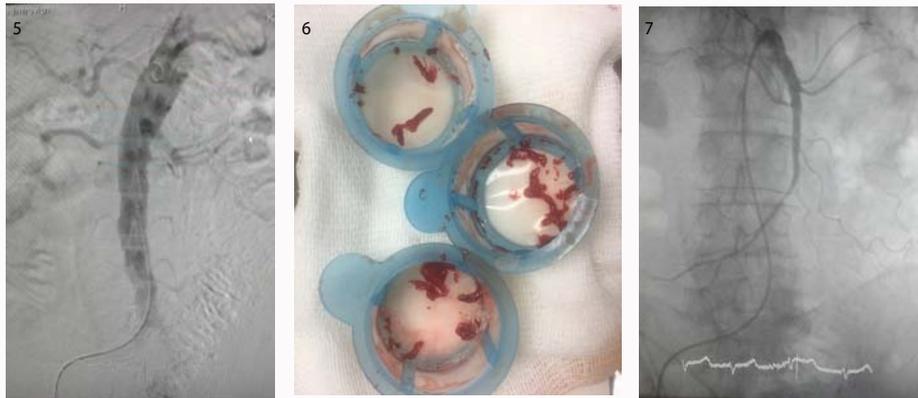


Figure 5: CT view of SMA acute occlusion.

Figure 6: Thrombus aspirated from SMA.

Figure 7: View of SMA after thrombus aspiration.

Electrocardiography revealed atrial fibrillation, after abdominal ultrasound examination no additional information was obtained. An emergency computed tomography angiography was performed. Acute occlusion of SMA with small bowel ischemia has been established (Figure 5). The patient was taken to the endovascular operating room immediately. Abdominal aortography performed and the presence of acute occlusion (thromboembolus) in SMA below the origin of a colic a media confirmed. Endovascular aspiration thromboembolotomy performed (Figure 6). Completion angiography control established restoration of blood flow in SMA and its branches (Figure 7). SMA

was stented. The pain syndrome disappeared after endovascular intestinal revascularization. Second look computed tomography angiography performed on the 3rd day after the revascularization, SMA filling defects were not detected, the bowel wall accumulates contrast in all sections. The patient was discharged on the 5th day after the interventional endovascular intestinal revascularization. His anticoagulant medication (rivaroxaban) enhanced.

Conclusion: Endovascular methods for the treatment of acute abdominal ischemia have shown high efficiency and safety.