

Case Report

Link between Two Decades of Oral Contraceptives and Bowel Infarction: A Case Report

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Abstract

Objectives: Partial or total necrosis of the bowel is a frequent cause of obstruction of the mesenteric artery or vein. Mesenteric infarction is usually the consequence of other associated pathologies of the patient and most often revealed by acute intestinal obstruction. Thus, it is of utmost importance to recognize the risk factors and treat all conditions that might have a link with a hypercoagulability state.

Acute mesenteric ischemia is pathology difficult to treat due to the nonspecific symptomatology and late diagnosis consequently. Moreover, the majority the patients have other comorbidities resulting a mortality in over 50% of the cases.

Methods and results: Identified risk factors in our patient's case for the thrombus formations were oral contraceptive medication, hypertension, and obesity. Other secondary causes of Superior Mesenteric Vein (SMV) and Portal Vein (PV) thrombosis were investigated but all tests were negative leading to the incrimination of obesity and chronic use of oral contraceptives for over two decades.

Conclusion: Rare, life-threatening complications of associated pathologies such as venous mesenteric thrombosis and bowel obstruction are unanticipated. Thus, it is of utmost importance to diagnose complications and risk factors as soon as possible whose resolutions will make it possible to prolong survival of many patients. Identification of populations at risk and screening of asymptomatic patients are therefore crucial imperatives.

Background

Partial or total necrosis of the bowel is a frequent cause of obstruction of the mesenteric artery or vein. Mesenteric infarction is usually the consequence of other associated pathologies of the patient and most often revealed by acute intestinal obstruction. Thus, it is of utmost importance to recognize the risk factors and treat all conditions that might have a link with a hypercoagulability state.

Acute mesenteric ischemia is pathology difficult to treat due to the nonspecific symptomatology and late diagnosis consequently. Moreover, the majority the patients have other comorbidities resulting a mortality in over 50% of the cases.

As of etiopathogenesis, there are 4 mechanisms for the acute mesenteric ischemia including: Embolism of the Mesenteric Artery (EMA), Arterial Mesenteric Thrombosis (AMT), Venous Mesenteric Thrombosis (VMT), Nonocclusive Mesenteric Ischemia (NOMI). During this article the emphasis will be on the VMT with association to bowel infarction.

Patients with a risk of EMA are those suffering from mitral stenosis, atrial fibrillation, or left ventricle infarction. Patients with a high risk of AMT may have other associated pathologies such as atherosclerosis. VMT is frequent in patients with portal hypertension, intraabdominal

infections, any kind of trauma and other hypercoagulability states. NOMI is influenced by low cardiac function and vasoconstriction. All the listed pathologies have a link to bowel necrosis and these patients should be carefully managed and treated.

Case Presentation

A 46-year-old female patient was admitted to the emergency room with lethargy, nausea, diarrhea, vomiting for the last 3 days and intense, continuous epigastric pain that turned into diffuse abdominal pain for the last 2 weeks. At physical exam, the abdomen was distended with a BMI showing second grade obesity, as well as pain at the palpation of the abdomen but without any signs of peritoneal irritation. Furthermore, the laboratory results showed leucocytosis with lymphocytosis, without inflammatory syndrome, anemia, severe nitric retention (GFR=12, 2 ml/min), moderate hepatocytolysis, severe cholestasis, mild hyponatremia, mild hypercalcemia.

The anamnesis revealed that the patient has a chronic treatment with oral contraceptives for over two decades and other associated pathologies such as hypertension, anxiety, and depression [1,2].

As of imaging, CT showed partial thrombosis of PV near the hilus (Figure 1), emphasizing portal opacified ramifications at the level of the hepatic lobules (Figure 2) and complete thrombosis of SMV, dilatation, thickening and hydro-aeric levels of some intestinal loops for approximately 26 mm-28 mm located mesogastric (Figure 3), hypogastric and in the right flank suggestive to ileus secondary to venous thrombosis and venous stasis. CT also showed liquid in the following regions-perihepatic; diffuse mesenteric, hypogastric, pelvic, bilateral pleural collection and ascites.

Identified risk factors for the thrombus formations may be oral contraceptive medication, hypertension, and obesity. Other secondary causes of SMC, PV thrombosis were investigated but all tests were negative leading to the incrimination of obesity and chronic use of oral contraceptives. Initially, anticoagulation medication was given

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Figure 1: Thrombus in the PV.



Figure 2: Opacified ramifications at the level of the hepatic lobules.

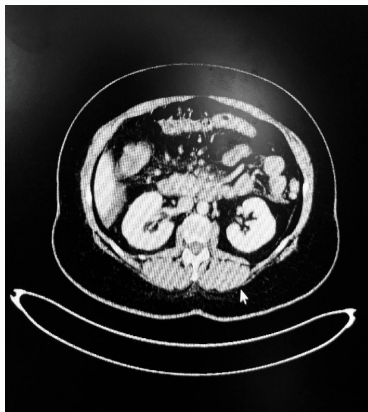


Figure 3: Hydro-aeric levels.

as an attempt to selective thrombolysis subsequently, unfortunately without success.

Surgically, a midline laparotomy is performed, followed by aspiration of approximately 4 liters of ascites liquid. During the exploration of the abdomen, it was esteemed that 1.5 m of small bowel is ischemic and aperistaltic.

Consequently, segmental intestinal resection is performed, manual ileo-jejunal L-L anastomosis, liquid aspiration in the Douglas sac and temporary closure of the wound with a Bogota bag.

Postoperative evolution is marked by day 5 enteral fistula, followed by the fitting of a new Bogota bag and by installing of a terminal ileostomy in right ileal fossa as well as a vacuum kit and abdominal reconstruction with a thigh skin graft. Hemodynamically, the patient presented multiple episodes on instability which required vasoactive support with antihypertensive medication. Following the multiple interventions, the evolution is favorable without any signs of active bleeding and healing of the flap and surgical incisions.

Regarding the neurological and psychological status, the patient is on anxiolytics and antidepressant medication and is now space and time orientated and cooperative.

Patient's nutrition required a combination between parenteral, enteral and per os manners. The levels of proteins, albumins and electrolytes were at a minimum, but were corrected by a high-protein diet.

Consecutive to all the procedures, the patient is in good health and is discharged with anticoagulation treatment and can live a normal life.

Discussions and Conclusion

Rare, life-threatening complications of associated pathologies such as venous mesenteric thrombosis and bowel obstruction are unanticipated. Thus, it is of utmost importance to diagnose complications and risk factors as soon as possible whose resolutions will make it possible to prolong survival of many patients. Identification of populations at risk and screening of asymptomatic patients are therefore crucial imperatives.

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