

## Late Onset of Intestinal Occlusion Secondary to Pelvic Inflammatory Disease

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### Abstract

Intestinal obstruction is one of the most common pathologies of consultation in surgical emergency services. This is mainly caused by postsurgical adhesions, hernias and malignant tumors, there is little evidence of relationship between intestinal occlusion and pelvic inflammatory disease but there are case reports in acute phases.

*Case report:* A 79-year-old female with intestinal obstruction without a surgical history, the only relevant personal history is pelvic inflammatory disease during youth. After little responder to initial medical management a tomographically approach where a transition zone is evident in hypogastrium. It is approached laparoscopically in which there is evidence of epiploic firm adhesion that condition loop entrapment, upon release the transition is resolved.

*Conclusions:* The evidence correlates the lack of timely surgical management in mechanical intestinal occlusion with an increase in short-term mortality, with age and time of conservative management being the main risk factor. Imaging studies are very useful for the diagnosis of mechanical intestinal occlusion. Although there is little evidence of late onset of intestinal occlusion secondary to pelvic inflammatory disease, the findings in transurgical of location of adhesions makes us believe there is a direct relation.

**Keywords:** Intestinal obstruction, pelvic inflammatory disease, geriatric.

### 1. CASE REPORT

A 79 years-old female patient who begins 3 days prior to evaluation in the emergency department with colic pain, progressive, intensity 10/10, localized in mesogastrium, accompanied by nausea and gastrobiliar vomiting on 6 occasions and oral feeding intolerance. Personal history of 20 years of evolution in treatment with Losartan, subclinical hypothyroidism of 15 years of evolution with treatment with 25 mcg of Levothyroxine, gynecological history of two deliveries at 22 and 25 year respectively and pelvic inflammatory disease at 34 years with response to antibiotic treatment. At physical evaluation Bloated abdomen, depressible, painful on medium and deep palpation, hypoactive peristalsis, without data of peritoneal irritation.

Laboratories. Her hemoglobin was 16.5 g/dl, leukocyte was  $8.07 \times 10^9/L$  neutrophils  $4.7 \times 10^9/L$ , her Platelet count was 265,000/ $\mu l$ , albumin 2.9 mg/dl, Glucose 134mg/dl, Sodium 131 mEq/L Chloride 131 mEq/L Potassium 3.7 mEq/L.

Moderate dilatation of loops of the small intestine are observed in simple abdominal radiography, It begins with medical management with hydration and decompression with a nasogastric tube, after 24 hours without clinical improvement, so a tomography is performed showing a transition zone with a fixed bowel loop in the lower left quadrant without evidence of a tumor (image 1 and 2), reason why surgical management is decided. Its approached laparoscopically in which firm adherence omentum-omentum Zühlke 3 (image 3) that conditions loop entrapment is evident, when the transition is released, the

transition is resolved with a viable afferent loop (image 4). The patient is discharged after developing 5-day ileus corrected fluid and

nutrition therapy; adequate evolution in the 2-year-follow up.

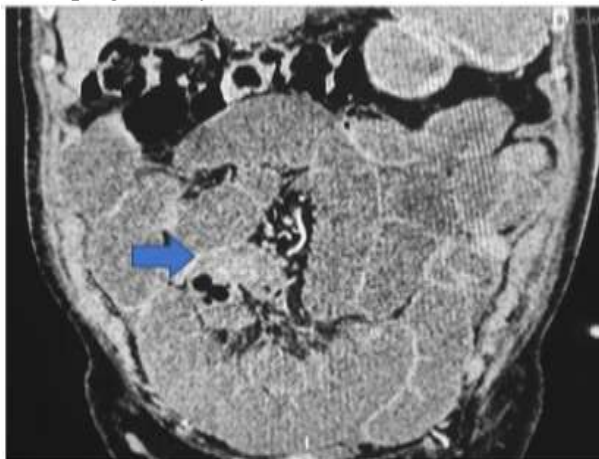


Image 1. Transition zone on lower right abdomen quadrant pointed by arrow seen on a coronal image of computed axial tomography



Image 2: Transition zone without tumor evidence show on an axial image of computed axial tomography

## 2. DISCUSSION



Image 3: Transurgical image of epiploic-epiploic adhesions generating an intestinal transition zone.



Image 4: Transurgical image after releasing firm adherence, with areas of ischemia in the afferent loop that reversed after 10 minutes of observation.

Intestinal obstruction is one of the most common pathologies for consultation in the surgical emergency services. Being responsible for around 300,000 annual hospitalizations in north america. It is mainly caused by postsurgical adhesions, with a 70% prevalence: hernias of the abdominal wall and malignant tumors. Approximately 80% of patients with intestinal obstruction secondary to adhesions have a history of previous abdominal surgery. [1]

This condition is defined as blockage of intestinal transit of feces and gases. Clinically, it manifests with the classic tetrad of diffuse colic-type pain, bloating, nausea, and episodes of emesis, ending with complete inability to evacuate and expel gases. [2]

Regarding geriatric patients (over 65 years old) with intestinal obstruction, it has been evidenced in the last systematic reviews, who share a clinical picture, etiology, and post-treatment result with patients from other age groups. [3, 4]

In the context of internal hernias, due to adhesions. They can present secondary to other intra-abdominal inflammatory processes, such as inflammatory bowel disease, colonic diverticulitis, and peritoneal tuberculosis, and in our case due to pelvic inflammatory disease (pid).

Gonococcal infection, or chlamydia, remains a common pathology in sexually active women, with pelvic inflammatory disease being one of its manifestations. [5] More than 25% of affected patients suffer from complications and sequelae, including chronic pelvic pain,

tuboovarian abscess, infertility, and ectopic pregnancy. [6] Said infection conditions and important inflammatory reaction at the abdominal level, which can trigger the formation of adhesions and therefore intestinal obstruction in the future.

The association between pid and intestinal obstruction is not described as a possible etiology, except in some case reports, which are focused on adolescent and young adult population.[5–7] For this reason, the value of presenting this case in which both pathologies coexist, pelvic inflammatory disease and late onset intestinal obstruction in a geriatric patient.

### 3. CONCLUSIONS

The evidence correlates the lack of timely surgical management in mechanical intestinal occlusion with an increase in short-term mortality, the main risk factor being age and time of conservative management, recalling adhesions and oncological causes as the first causes. Advanced imaging studies are very useful for diagnosing mechanical intestinal occlusion. There is no direct correlation of both pathologies more than in few case reports in acute moments, due to the clinical presentation of our patient and history, this association may be considered in its late clinic presentation.

### FUNDING AND CONFLICTS OF INTEREST

None

### ETHICAL APPROVAL

There was no ethics approval required for this case report

### CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying images

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