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Hemoperitoneum as severe and unusual complication in the stapler recto-anopexy for hemorrhoidal prolapse. Case report

A. RACALBUTO, I. ALIOTTA, M. SANTANGELO, R. LANTERI, P.V. FOTI[1], V. MINUTOLO, A. LICATA

SUMMARY: **Hemoperitoneum as severe and unusual complication in the stapler recto-anopexy for hemorrhoidal prolapse. Case report.**

A. RACALBUTO, I. ALIOTTA, M. SANTANGELO, R. LANTERI, P.V. FOTI, V. MINUTOLO, A. LICATA

We report unusual but severe complication after Longo recto-anopexy for hemorrhoidal prolapse, i.e. large intramural hematoma of the rectum and subsequent hemoperitoneum. We make some assessment about the technique.

RIASSUNTO: **Un caso di emoperitoneo come complicanza grave ed inusuale nella chirurgia con stapler del prolasso rettale mucoso emorroidario.**

A. RACALBUTO, I. ALIOTTA, M. SANTANGELO, R. LANTERI, P.V. FOTI, V. MINUTOLO, A. LICATA

Gli Autori, da una rara ma grave complicanza della rettoanopessia secondo la tecnica di Longo - un esteso ematoma intramurale del retto con conseguente emoperitoneo - espongono alcune considerazioni sulla tecnica.

KEY WORDS: Hemorroidal prolapse - Stapler recto-anopexy - Hemoperitoneum.
Prolasso emorroidario - Rettoanopessia con stapler - Emoperitoneo.

Introduction

Nowadays, rectopexy using staplers according to Longo's technique (1) for treatment of the mucosal hemorroidal rectal prolapse is widely diffused in all countries, above all due to incontestable postoperative patient satisfaction and quick comeback into social life.

Overcoming of the learning curve has also made surer the technique, limiting to low percentages (1-2%) anal bleeding that initially was more feared the complication. Nevertheless, rare and unusual complications have sporadically been reported, because of their objective gravity. Many Authors have judged disproportionate these complications versus the type of surgical procedure and some of them put this technique in discussion (2, 3).

We report a case of a very unusual hemorrhagic complication with our personal remarks.

Case report

Z.A.M., male, 32 years old, came to our observation (Outpatient Coloproctology) in July 2007. He was affected by hypertension; he also referred many episodes of allergic reaction during previous surgical procedures (including glottid edema). Diagnosis was hemorroid prolapse, III grade. We suggested patient Longo's rectopexy, explaining him risks and benefits.

The patients underwent routine preoperative tests for elective surgery: blood examination, EKG and chest X-ray. Different anaesthesiological consultations have been performed. Patient signed informed consent and underwent surgery in September.

Anaesthesist, as usually, decided to perform spinal anesthesia. Surgeon had a large experience of Longo's technique (about 350 personally operated patients, complications according to literature).

When surgeon was firing the stapler, patient underwent an important allergic reaction, with glottid edema; his abdominal and pelvic muscles started to contract, so completing the operation was more difficult than usually. Patient was intubated and went to Intensive Care Unit (ICU).

Exubation occurred few hours later; conditions were good even if anaesthesist reported mild abdominal pain during palpation at night. The day after, at surgical check, severe abdominal pain and tenderness were verified. A CT scan was immediatly performed, demonstrating abdominal bleeding together with remarkable thickness of rectal and sigmoidal wall with air inside .

The patient was immediately treated by laparoscopic exploration that showed bleeding in the pelvic cavity between the small bowel loops and adjacent to the liver and the spleen, with many blood cloats

University of Catania, Italy
Department of Surgical Sciences, Organs Transplant and New Technologies
[1] Institute of Radiology

into the pelvis. After many plentifull and washing, a 1 cm diameter hole was identified in the intraperitoneal rectal wall . We decided to perform a laparotomy. During surgery we removed residual blood cloats in the pelvis and sutured the laceration of the intraperitoneal rectum that involved only the serosa and the muscle of the rectum whereas the mucosa was intact. We also performed a rectoscopy: a very great hematoma was present in the wall of rectum hearly producing the collapse of its lumen. So we decided to drain making a small cut in the mucosa.

The patient went to ICU and was readmitted to our Surgical Unit two days later. He was discharged without any other complication seven days after surgery.

Discussion

Recto-anopexy according to Longo technique represents nowadays a diffused surgical approach: its advantages and possible complications are ever described and discussed with the patient before surgery.

Most frequent complications are free bleeding from rectal lumen and simple small hematomas of the rectal wall. These complications are generally simply to resolve. Bleeding occurs in 3-4% of patients, according to literature. We published a series in which rectal bleeding was present in 3% of patients (4). Furthermore we found some cases with pain due to rectal hematoma wall, that we resolved with a trans-anal drainage.

In literature just few cases like ours have been reported (5). Of 47 reports recently collected by SIUCP (Italian Unitary Society of Coloproctology), consisting of rare but severe complications, 15 bulky rectal hematomas was reported, 10 stable and 5 active, but only one with hearing of the peritoneum and abdominal bleeding as in the our case. To explain the bleeding into the peritoneum in our patient we think that probably the respiratory crisis occurred during surgery (allergic reaction with glottid edema), with sudden intubation, the increase of arterial pressure, patient's agitation, with stretching of abdominal and pelvic muscles, caused an important traction at the suture level; the consequent hematoma pushed way, through the rectal wall, opening into the abdominal cavity.

This dynamic is supported by peritonism signs and CT scan finding (Figs. 1-3). It's important to note that in our patient, unlike the similar case previously mentioned, that needed a colostomy, rectal mucosa was not broken; so, no bacterial contaminations occurred and the patient recovered in few days. No surgical techniques is exempt from complications and the same occours for Longo's technique. Nevertheless many Authors have been criticizing these techniques for the serious complications described in literature (2, 3, 5).

We conclude with some remarks:

- hemorrhoid pathology is often underestimated and considerated like simple surgery, not considering and accepting probable complications;

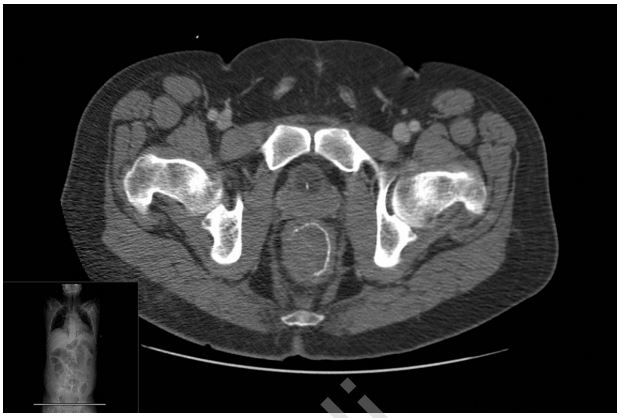

Fig. 1 - CT scan shows the staple line along the wall of the rectum.

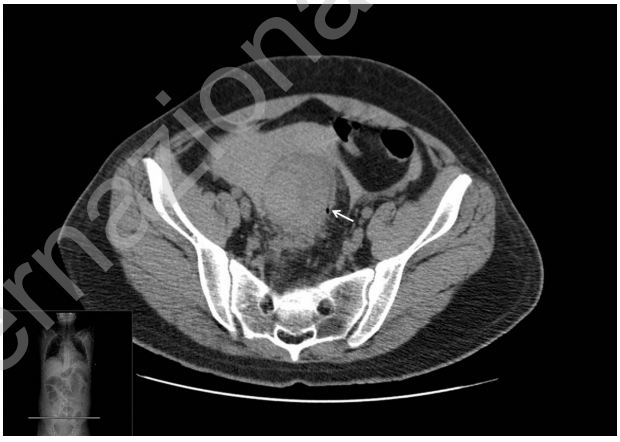

Fig. 2 - Plain CT scan shows hyperdense hematoma within the right wall of the rectum. Note small. gas bubble within the left wall of the rectum (arrow) . Hemoperitoneum is also present.

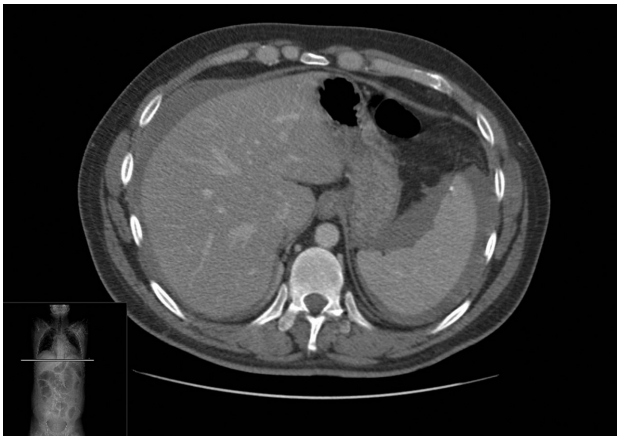

Fig. 3 - Postcontrast CT scan shows hemoperitoneum adjacent to the liver and spleen.

- severe complications have been described for all kinds of hemorrhoid surgical techniques (6);
- rectal prolapse is nowadays considered the cause of hemorrhoid glide and, if we accept this concept, surgery has to be directed to prolapse re-

section (recto-anopexy, STARR);
- rectopexy using stapler is to consider like a (complete) rectal resection; so it should be catalogued in complex surgery;
- so severe complications of this surgery, quietly rare, should be accepted; this is a recent technique, in evolution, and above all, susceptible of improvement.

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