

SMALL BOWEL ULCERS – A RARE CAUSE OF MASSIVE DIGESTIVE HAEMORRHAGE

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CASE REPORT

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Abstract

A patient of 61 years of age, diabetic, at a phase of multiple cardiovascular and visceral complications, who, after having followed an intensive treatment with non-steroid anti-inflammatory medication 4 tablets / day for a week, is showing an episode of massive digestive hemorrhage with a decrease in hemoglobin values from 11.3 g/dl down to 5.6 g/dl and for whom the therapeutic solution was represented by surgical intervention with segmental enterectomy for multiple bleeding ulcerative lesions of the ileum. The post-operative evolution has been a positive one, normal hemoglobin values have been re-established. Although massive digestive hemorrhages having as source ulcerations of the small bowel represent life threatening situations, permanent monitoring of the patient in the intensive care unit, careful hydro-electrolytic rebalancing, blood transfusions as well as surgical treatment applied at the right time may lead to a favourable outcome.

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Introduction

The small intestine is the segment responsible for about 5 - 10% of all bleeding in the digestive tract, and 80% of digestive bleeding without a specified location (obscure). The most common causes that determine this pathology are ulcerations, angiodysplasia, inflammatory bowel diseases, polyps, respectively tumors, etc [1,2].

Although they have undeniable benefits, nonsteroidal anti-inflammatory treatments are burdened with a number of important

complications. The number of patients with such medication is very high, and approximately 1-2% of them have a serious complication during treatment: haemorrhage, perforated ulcer, etc [3,4]. Gastrointestinal bleeding is one of the most feared pathological conditions and in certain situations the patient presents a rapid alteration of the general condition, with first-line paraclinical investigations (endoscopy and colonoscopy) that do not offer significant changes, access to the video capsule requiring early

programming, thus obliging to an indication of operative urgency [5,6].

Case presentation

A Romanian male patient, 61 years of age has been admitted into our hospital for a critical ischemia of the left pelvic limb, accompanied by a severe local pain. The patient was known to be a diabetic for more than 10 years, associating multiple complications of the diabetic disease: severe arteriopathy, ischemic cardiopathy and high blood pressure. Of the patient's medical history, we must mention that he had been self-administering non-steroid anti-inflammatory medication 4 tablets / day, for a week, as these were the only ones capable of diminishing the pain.

Paraclinical investigations have highlighted an ankle-brachial index that could not be calculated at the level of the left pelvic limb and hemoglobin of 11.3 g/dl. The vascular surgery examination has infirmed the possibility of revascularization and has recommended amputation of the thigh. A surgical intervention has been done, after compensating the associated cardio-vascular disorders and performing an amputation median third on the left thigh. 48 hours after the surgery we were able to see a favorable evolution of the amputation stump, however, the patient was accusing repeated melanic stool, which were confirmed by rectal examination.

From the biological perspective, we have seen a decrease in hemoglobin down to the value of 9.8 g/dl.

We have instated a hemostatic and antisecretory treatment, of hydro-electrolytic rebalancing and administering one unit of erythrocyte mass. 12 hours later, we have seen the re-emergence of two melanic episodes, the hemoglobin value reaching the value of 9.1 g/dl.

Taking into account the evolution of the patient, we recommended and performed a colonoscopy that did not highlight any organic modifications at the level of the colon, but found that hemolyzed blood and blood clots were evacuated at the level of the ileocecal valve.

The same conservative treatment was reinstated (including the administration of multiple erythrocyte mass and frozen fresh plasma), and the result was a decrease of the values of the hemoglobin to 8.5% g/dl, and then, rapidly, within 4 hours, down to 5.6 g/dl.

The emergency surgical intervention was decided and at the level of the small bowel, in the ileum segment, was detected by transparency a large quantity of hemolyzed blood, and at the level of the antimesostenic edge multiple scar lesions were found, in tiers on a distance of approx. 1 m. An enterotomy was performed, revealing multiple ulcerative bleeding lesions, with sizes ranging between 0.5-1.5 cm, corresponding to the scar lesions found on the antimesostenic edge. Under these conditions, a decision was made to perform an enterectomy of the interested segment and terminal ileostomy.

The post-surgery outcome has been favorable, after re-balancing the patient the hemoglobin values have reached the values of 9.8 g/dl., then of 10.7 g/dl, the patient was then discharged from the hospital in a good general condition, with a functional ileostomy and amputation stump which can be fitted with a prosthesis and considerably less pain. The histopathological results shown multiple ulcers at the mucosa level and severe inflammatory infiltrate on all the layers of the small bowel.

At the examination carried out one month after the surgical intervention, the patient showed a good general condition, hemoglobin of 12.3 g/dl, ileostomy with a normal aspect, being re-evaluated in view of disbanding the ileostomy.

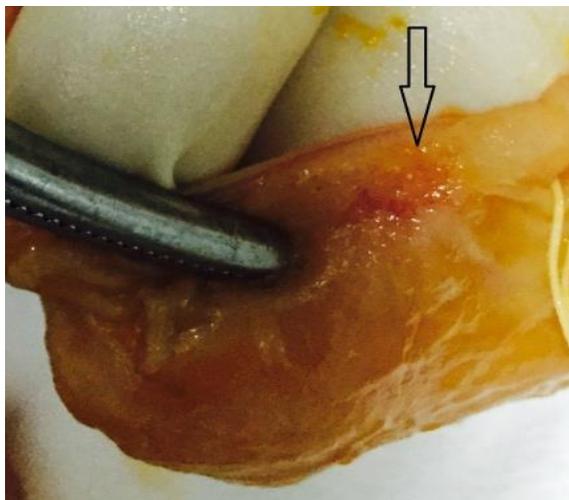
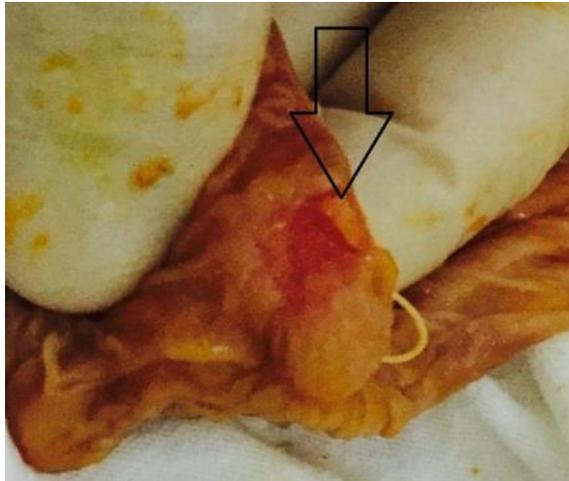


Figure 1A and 1B – Small bowel ulcers – operative specimen

Discussion

The clinical diagnostic of the ulcerative lesions of the small bowel is non-specific, the patient has come to the medical examination because of diffuse abdominal pains, or, more frequently, at the stage of inferior digestive hemorrhages [7,8].

The paraclinical diagnostic may be done by using enterocapsules or selective angiography of the superior mesenteric artery, which highlights the location and the source of the bleedings, nevertheless, in cases of massive digestive hemorrhage, a rapid therapeutic reaction is needed, which does not

allow for the transfer of the patient to a medical center having such technical endowment. [9]

Seeing how the small bowel is the segment of the digestive tube for which imagistic exploration has limited applicability, it is often the case that the diagnostic of digestive hemorrhages originating from this level is done by exclusion. In case of massive hemorrhages, the surgical treatment is the only one capable of saving the patient's life.

Angiographic methods represent a viable treatment alternative, however, in a patient with massive hemorrhage, admitted into a medical center which does not have such endowments, the transfer to a tertiary center may pose a major vital risk, which cannot be assumed [9].

Also, a less invasive option than enterectomy that deserves mention in the case of obscure hemorrhage is intraoperative enteroscopy that ensures a high degree of diagnostic and therapeutic accuracy at the same time in certain selected cases [10].

The occurrence of gastrointestinal bleeding in patients receiving non-steroidal anti-inflammatory drugs should always be considered in a clinical context. Risk factors such as age over 60 years, ulcer in the personal history, concomitant treatments with anticoagulants or antiplatelets, alcohol consumption, respectively tobacco will increase the chances of bleeding in the digestive tract [11].

A possible alternative to treatment with nonsteroidal anti-inflammatory drugs is their replacement in analgesic treatment with COX-2 inhibitors (coxibs) [12]. In the literature, their advantages in terms of gastrointestinal and cardiovascular effects have already been highlighted [13]. An example of this is Celecoxib, which provides additional protection over the intestinal mucosa, including the association between nonsteroidal anti-inflammatory drugs and proton pump inhibitors [14].

Also, a very important aspect is to differentiate the cause of the ulcers. It is well

known that Crohn's disease is also a common pathology that produces ulcerative lesions at this level and it can be diagnosed by colonoscopy. Intestinal tuberculosis or intestinal lymphoma can be a differential diagnosis, but it should be mentioned that these are rare conditions [15].

Conclusion

The therapeutic management of digestive hemorrhages having as an underlayer the ulcers of the small bowel in diabetic patients, which were determined by the ingestion of non-steroid anti-inflammatory medication, represents a challenge in terms of treatment, due to the fact that they occur on a precarious general status of the patient, made fragile by multiple complications of the diabetic disease, and for which decompensation may appear at any time.

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