Surgical strategy in massive colorectal bleeding

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Several pathologic disorders can become a souce of severe gastrointestinal bleeding. The most frequently observed entities responsible for massive colorectal bleeding are diverticulae, intestinal angiodyplasias, inflammatory bowel diseases and cancers. In order to choose the best - surgical - method to stop the hemorrhage and cure the disease; it is mandatory to properly identify the origin and location of the bleeding. It is a common experience that the usually advised diagnostic methods often yield disappointing results in urgent cases. The presented case shows that selective angiography can lead to the fastest diagnosis in angiodyplasia and with surgery a definitive result can be obtained.

Key words: diverticulae, intestinal angiodyplasia, inflammatory bowel diseases, cancer, bleeding

INTRODUCTION

Severe hemorrhage of the lower gastrointestinal (GI) tract very often has a colorectal origin. The extent of this bleeding can usually be measured/described by the number of units of blood administered for stabilizing the patient’s circulation. This number can easily reach 3-5 units of blood during the first 24 hours. Massive hematochezia represents 20% of all acute GI bleedings. Currently, both the diagnostic and the therapeutic approaches are under standardization.

Because of the difficulties in the process of making the right diagnosis and also taking into account the often limited diagnostic facilities smaller hospitals may have access to, choosing the proper diagnostic protocol is of huge importance. Sometimes even the surgical intervention can not prevent recurrent bleeding. Moreover, regardless of the proper order of investigations, in 15-35% of all the cases no definitive diagnosis can be reached. It must also be noted that there is a good chance of the spontaneous cease of the bleeding or good clinical response to conservative therapy. Only a very limited number of patients require surgical intervention, authors usually report this rate to be 5-25% of all the cases.

CASE REPORT

A young man with an age of 36 years was admitted with massive colorectal bleeding and consequent extensive tissue hypoxemia. His recent medical history revealed several previous cases of hematochezia. All the necessary evaluations had been performed, including endoscopic assessment of the potential target organs. Technetium-labeled red blood cell scanning could not confirm exactly the bleeding site, though the blood-loss was continuous.

That time conservative treatment has lead to success. Upon his next admittance, which was again necessitated due to massive colorectal bleeding, we first repeated the evaluations performed previously. Regardless of the 5 units of blood transfusions, the bleeding has not shown a tendency of stopping; thus, as a final chance to establish a quick and proper diagnosis, selective angiography has been performed (Figure 1). The angiogram showed an extraordinarily vascularized area at the rectosigmoid junction. This finding suggested angiodyplasia as the source of bleeding. With the removal of the involved part of left colon, the hemorrhage stopped. Follow-up angiography showed the completely removed lesions (Figure 2). Histological evaluation also confirmed the diagnosis of angiodyplasia.

DISCUSSION

Colorectal bleeding is common and occurs principally in elderly patients, over the age of sixty. The bleeding can be small or massive, in this latter case the bleeding rate is 0.1mL/min. Another factor to assess the severity of the hemorrhage is the number of units of required blood transfusions. Massive bleeding is characterized by at least 5 units of blood in 24 hours.
The source of the bleeding may vary. Malignant diseases, inflammatory disorders, diverticular disease, angiodysplasias all can cause GI hemorrhage. Mortality rate may be as high as 20%. The bleeding is often intermittent and stops spontaneously in the majority of the cases. However, in those particular cases where the origin remains undiscovered, rebleeding episodes should be expected.

Colonoscopy is extremely helpful in the evaluation of the patients since it can be used both for localization and treatment. A vast majority of the diagnoses was achieved with endoscopy alone. Technetium 99m labeled red blood cell technique can also be useful. Considering the technical difficulties of urgent colonoscopy, angiodysplasias may often remain undiscovered. In these patients the angiography can be the only way to get to the final diagnosis. It is also possible to decide for or against a surgical intervention based on this method.

REFERENCES


