

ORIGINAL PAPER

EMERGENCY RIGHT ILEOHEMICOLECTOMY. DIAGNOSIS-THERAPEUTIC CONSENSUS**Ana-Maria Sârbu¹, Simona Bobic^{1,2}, V.D. Constantin^{1,2}**¹Clinical Emergency Hospital "Sfântul Pantelimon", Bucharest, Romania²The University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

Corresponding author: Ana-Maria Sârbu
Phone no. 0040741935911
E-mail: sarbu.ana91@gmail.com

Abstract

Right ileo-hemicolectomy is an operating procedure that is recommended in the treatment of cecum and right colon cancer. The study aims to establish a relation between this operating procedure performed on emergency hospitalized patients and the postoperative diagnosis based on the histopathological assessment of the resected part, thus evaluating the prognosis. The study was designed to note the diseases that lead to emergency right ileo-hemicolectomy in the "Sf. Pantelimon" Hospital from January 2013 to February 2016, in an observational and retrospective manner. Records included: the type of the operating procedure, the preoperative diagnosis (based on clinical and laboratory findings), the postoperative diagnosis (based on the histo-pathological assessment of the resected part), complications and the number of hospitalization days. A total of 78 patients was included. The most common diagnoses were: colon cancer, enteric infarction, specific and nonspecific inflammatory bowel diseases, volvulus and intussusception. Colon cancer affected more frequently women aged between 70 to 89, while enteric infarction was less frequent and mainly affected men aged between 60 to 69. There was no significant difference concerning the inflammatory bowel diseases between the two genders. Right colic cancer was the most frequent disease affecting patients to whom it was performed emergency right ileo-hemicolectomy, surgical treatment required by the clinical manifestations of enteric plosive syndrome. The results are in accordance with the national and foreign data on the subject.

Keywords: *emergency ileo-hemicolectomy, right colon cancer*

Introduction

Right ileo-hemicolectomy (rIHC) is a surgical procedure that consists in resection of the terminal part of the small bowel, of the cecum and the right part of the colon and it is mainly used in the treatment of right colon cancer [1]. Emergency rIHC is also used in different clinical situations other than neoplasia. Although the same surgical procedure is used to treat these patients, knowledge of the base pathology is essential. The quality of life of

these patients and the immediate postoperative results as well as the long term ones, vary according to the individual parameters such as age, gender, physical status, parameters corresponding to the disease that they have been treated for. Studies have shown that there are variations concerning the age and gender of the patients that are treated by IHC: right colon cancer is more frequent in women aged over 60 [2], while other diseases, such as inflammatory bowel disease, is more frequent in patients aged between 30 and 40 [3]. This article aims to

evaluate a group of patients treated by emergency rHC in order to establish a relation between the surgical management, the preoperative diagnosis (based on clinical and paraclinical assessment) and the postoperative diagnosis (based on the histo-pathological assessment of the resected part), thus evaluating the prognosis. Therefore, the analysed data included: preoperative diagnosis, particularities and complications of the rHC, number of days of hospitalization and the diseases involved.

Materials and method

The study recorded in a retrospective and transversal method data concerning the diseases that lead to emergency rHC in patients who presented to the emergency room of the Clinical Emergency Hospital "Sfântul Pantelimon", Bucharest, Romania between January 2013 and February 2016. The study consists of a 78 patients study group. The inclusion criteria were: presentation in the emergency room and surgical management by rHC. The data recorded were: age, gender, preoperative diagnosis, postoperative diagnosis, postoperative complications, number of days of hospitalization. The results were analyzed using EpiInfo 2014 and Microsoft Excell 2010.

Results

78 patients aged between 35 and 91 years old were evaluated. Figures 1 and 2 show the distribution of these patients regarding age and the relation between age and gender.

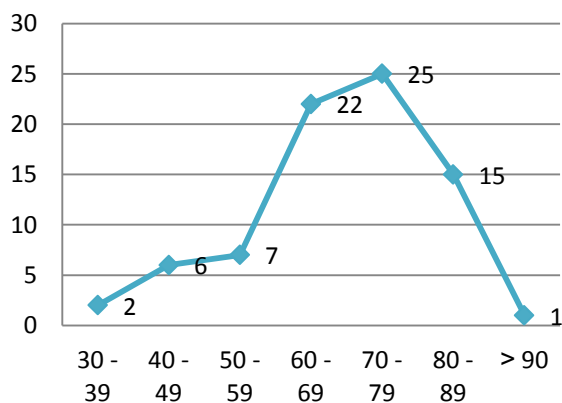


Figure 1 – Numerical distribution of patients included in the study group

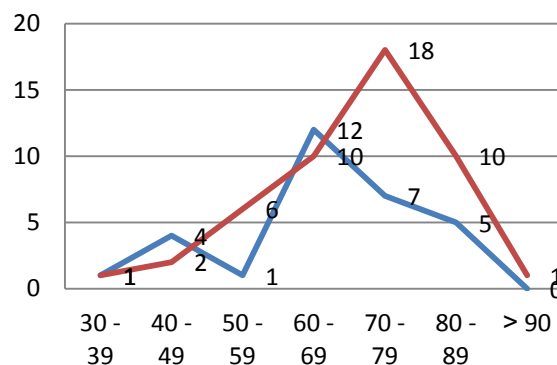


Figure 2 – Numerical distribution of the patients included in the study group regarding age and gender (red – female, blue – male)

Based on the histological assessment the results were as following (Figure 3): 60 (77%) cases of right colon cancer, 8 (10%) cases of enteric infarction, 3 (4%) cases of nonspecific inflammatory bowel diseases, 2 (3%) cases of diverticulitis, 1 (1%) case of pseudomembranous colitis, 1 (1%) case of Crohn disease, 1 (1%) case of TB inflammation, 1 (1%) case of intussusception, 1 (1%) case of volvulus.

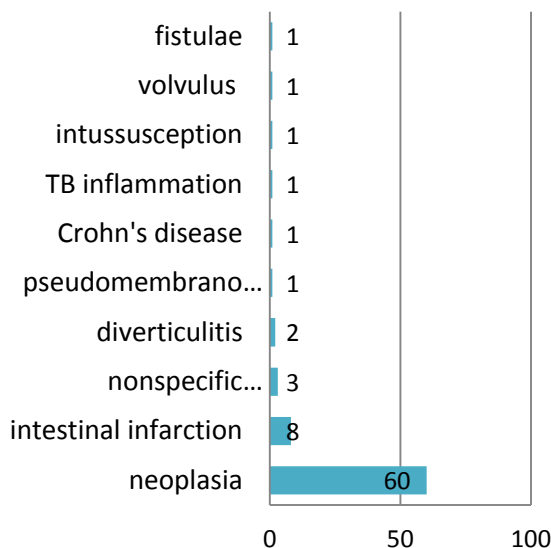


Figure 3 – Numerical distribution of the patients included in the study group regarding the diseases involved

The preoperative diagnosis was based on the clinical and paraclinical findings. They consisted in 4 clinical and biological syndroms (Figure 4): plosive syndrome, bulky tumoral mass, peritoneal syndrome and digestive hemorrhage.

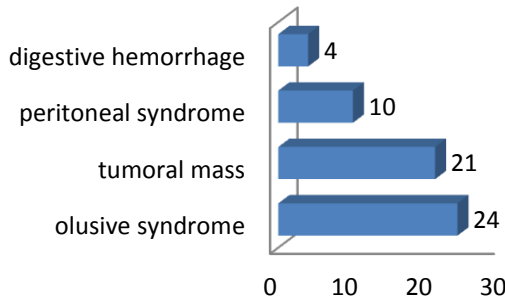


Figure 4–Preoperative diagnoses of the patients included in the study group

Every patient was performed rIHC with ileo-colic termino-lateral or latero-lateral anastomosis with variations concerning the number of each procedure, based on the disease that the patients have been treated for (Figure 5). 35 patients received rIHC with termino-lateral anastomosis and 43 rIHC with latero-lateral anastomosis.

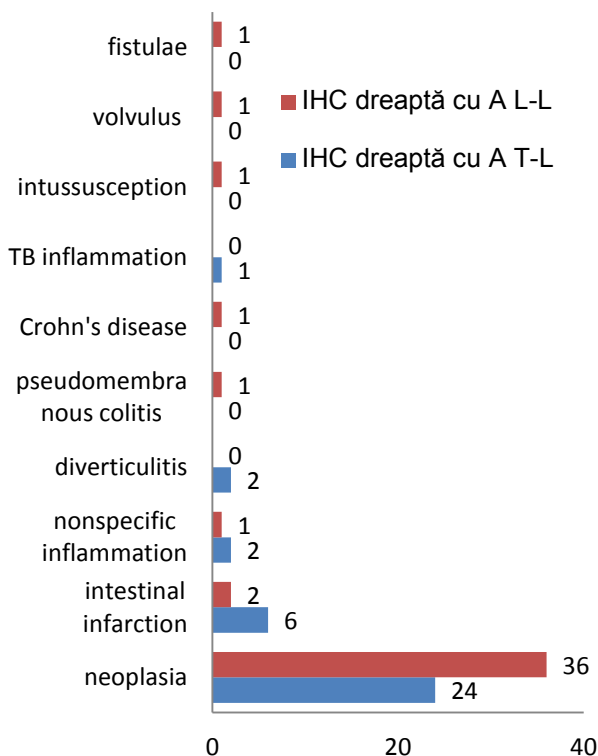


Figure 5 – Types of anastomosis for each disease

Postoperative complications were recorded in 41% of the cases, while 59% had favourable evolution. The immediate complications (decease, infections of the surgical wound, renal failure, fistula and peritonitis) as well as the late complications (superior digestive hemorrhage due to drug

administration and perihepatic adenopathy) are shown in Figure 6. The mortality rate was estimated to 24,35%.

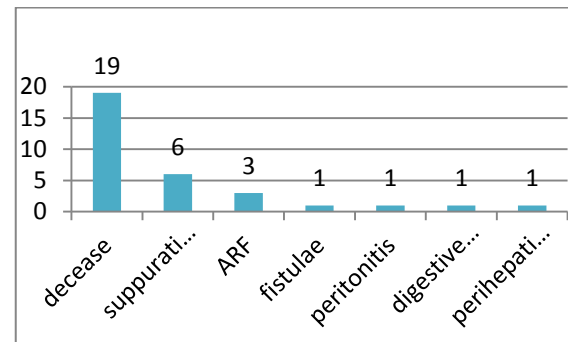


Figure 6 – Complications of the patients included in the study group

The number of days of hospitalization ranged between 6 and 43 days, with a mean of 12 days (Figure 7).

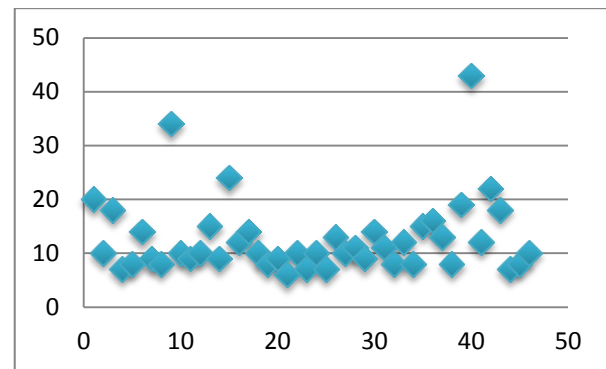


Figure 7–Number of days of hospitalization for patients included in the study group

Discussions

For a better analysis of the results collected, few characteristics of the study group must be discussed. There has been shown that most of the patients were aged over 60. This can be attributed to the fact that most of the patients were diagnosed with right colon neoplasia, whose maximum incidence is in patients of this age. Moreover, most of them were female, thus confirming the hypothesis above [2]. Regarding the characteristics of the studied group, it is rightfully to say that emergency rIHC is a procedure mainly used in the treatment of right colon cancer, rather than other diseases.

The data registered recorded 4 preoperative diagnoses. Patients have been allocated to each syndrome considering the

main clinical feature. The plosive syndrome had the greatest rate of occurrence and it was caused mainly by complications of the right colon cancer (such as stenosis, obstruction, penetration of the adjacent organs). On the other hand, 7 of the 8 cases of enteric infarction were presented in this manner. Thus, the evidence indicates that although complications of neoplasia cause more frequently plosive syndrome, this is a more specific clinical presentation for enteric infarction. On the other hand, the plosive syndrome is known to be a complication of the left colon cancer rather than right colon cancer and regarding these patients indicates an advanced diagnosis stage [4]. The finding of a bulky tumoral mass lead to the diagnosis of neoplasia, based mainly on the clinical findings (the paraclinical examination were used to evaluate the degree of extension, complications etc) and indicated an advanced stage of development. However, the histological assessment confirms this diagnosis in only 22 of the 25 cases. This error of diagnosis was considered to be due to the emergency evaluation of the patients in order to reduce the amount of preoperative time (thus decreasing the risk for even further complications) and to the lack of a high specificity paraclinical examination (such as the histological examination). The peritoneal syndrome was also caused by complications of the right colon cancer (perforation and penetration in adjacent organs) and inflammatory diseases. Therefore, the study shows that concerning the emergency diagnosis of these patients, plosive syndrome is more frequently caused by stenosis and obstruction, while peritoneal syndrome is caused mainly by perforation. Digestive hemorrhage was the least frequent syndrome and it was caused by ulcerations or necrosis of the right colon neoplasms. Although this clinical syndrome is known to be the major clinical feature of right colon cancer for patients treated electively by rIHC [5], in this particular case, the data shows otherwise. The reason consists in the characteristics of the hemorrhage, that is cronical in most of the cases, while in the emergency room patients were presented with massive bleeding.

The treatment included rIHC with ileocolic termino-lateral or latero-lateral anastomosis, these being considered to be safe

and efficient procedures for patients in severe condition, thus limiting the need of a new surgical intervention.

The postoperative evolution of the patients was significantly influenced by the occurrence of complications [6],[7]. The type and number of these complications was similar to that of a group of patients treated electively by rIHC. However, postoperative complications have extended the number of days of hospitalizations significantly more than for patients treated electively, up to 43 days for peritonitis. The mortality rate of 24,35% was higher than for patients treated electively [8], but similar to that of other patients treated by emergency rIHCs compared to data on the subject [9].

Conclusions

Emergency right ileo-hemicolectomy is a surgical procedure used mainly for the treatment of complications of right colon cancer. However, there are other different diseases which necessitate rIHC if they affect the ileon, cecum and the right colon.

The complications of right colon neoplasm that lead to rIHC diverse: stenosis and obstruction (presented as plosive syndrome), perforation (presented as peritoneal syndrome), penetration of the adjacent organs and least frequent digestive hemorrhage.

The treatment must consist of an effective and safe procedure, thus limiting the need for a new intervention.

The mortality rate for patients treated with emergency rIHC is high.

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