Chirurgia (2013) 108: 177-179
No. 2, March - April

Post-surgery Morbidity and Mortality in Colo-Rectal Cancer in Elderly Subjects

C. Șavlovschi, D. Șerban, T. Trotea, R. Borcan, D. Dumitrescu

University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

Rezumat

Morbiditatea și mortalitatea postoperatorie în cancerul colo-rectal la pacienții cu vârsta peste 80 ani

Scop: Intervențiile chirurgicale cu viză curativă sau paleativă pentru neoplasmele colo-rectale la pacienții cu vârsta peste 80 ani reprezintă o provocare chirurgicală prin problematica pe care o ridică: beneficii versus morbiditate crescută. În România, conform previziunilor demografice, populația cu vârsta peste 65 ani se va dubla în următoarea jumătate de secol. Acest lucru, corelat și cu incidența crescută a cancerului colo-rectal în decada de vârstă cuprinsă între 60-69 ani, dar și la vârstele extreme, ne-a îndemnat să identificăm factorii ce pot influența apariția complicațiilor și deceselor postoperatorii la pacienții cu vârsta peste 80 ani operați pentru cancer colo-rectal.
Material și metodă: Lucrarea cuprinde o analiză retrospectivă a pacienților cu vârsta peste 80 ani diagnosticați și tratați pentru cancer colo-rectal în Clinica Chirurgie IV a Spitalului Universitar de Urgență București, în perioada 2000-2011, urmărindu-se tipul operației, morbiditatea și mortalitatea post-operatorie. Dintr-un total de 297 de cazuri de pacienți operați pentru cancer colorectal, au fost identificați 36 pacienți cu vârsta peste 80 ani, vârsta medie fiind 83 ani (80-91).
Rezultate: Din totalul de 36 pacienți cu vârsta peste 80 ani, 22 au fost supuși unor intervenții chirurgicale cu viză curativă (la 16 dintre aceștia practicându-se hemicolectomie dreaptă, iar la 6 hemicolectomie stângă), restul de 14 beneficiind doar de tratament chirurgical paleativ. Factorii care au influențat negativ evoluția postoperatorie au fost diabetul zaharat, patologia cardiacă preexistentă, stadiul evolutiv al neoplasmului și caracterul de urgență. În lotul celor cu rezecții am constatat o morbiditate de 27,2% (6 cazuri) și mortalitate de 18,2% (4 cazuri), iar în cazul pacienților supuși unor intervenții paleative morbiditatea a fost de 28,5% (4 cazuri) cu o mortalitate de 14,3% (2 cazuri).
Concluzii: În cele 2 loturi de pacienți morbiditatea și mortalitatea postoperatorie au fost comparative egale, cauzate cel mai adesea de patologia cardio-pulmonară preexistentă și de caracterul de urgență al intervenției chirurgicale ce nu a permis o reechilibrare adecvată și în mai mică măsură de tipul intervenției. În decursul celor 12 ani, procentul pacienților cu vârsta peste 80 ani diagnosticați cu neoplasm colo-rectal s-a menținut constant. În ciuda vârstei înaintate și a tarelor asociate, apreciem satisfăcătoare evoluția postoperatorie, deși morbiditatea și mortalitatea postoperatorie au fost mai mari decât în populația generală conform literaturii. Compensarea preoperatorie a tarelor asociate, intervenția chirurgicală efectuată de către echipe experimentate, precum și asigurarea unei terapii intensive corespunzătoare sunt obligatorii pentru a reduce riscurile postoperatorii.

Cuvinte cheie: cancer colo-rectal, morbiditate, mortalitate, varstă înaintată

Corresponding author: Dragoș Șerban, MD
4th Surgery Department
University Emergency Hospital Bucharest
Splaiul Independentei Street, no. 169
Bucharest, Romania
E-mail: dr.dragos.serban@gmail.com

Abstract

Aim: Surgical procedures with curative or palliative intention in colo-rectal neoplasm in subjects aged over 80 represent a

surgical challenge due to the issue they raise: benefits versus increased morbidity. In Romania, according to demographic predictions, the population over the age of 65 will double in the next half century. This, correlated with the increased incidence of colo-rectal cancer in subjects pertaining to the 60-69 age period and higher, determined us to identify the factors that can influence the occurrence of complications and post-surgery deaths in subjects over 80 years of age that were operated on for colo-rectal cancer.

Methods: This paper includes a retrospective analysis of patients aged over 80, diagnosed and treated for colo-rectal cancer in the 4th Surgery Department of the University Emergency Hospital in Bucharest, in the period 2000 – 2011, following the type of surgery, morbidity and postoperative mortality. Out of a total of 297 cases of patients operated on for colo-rectal cancer, 36 were identified with the age over 80, age average being 83 years (80-91).

Results: Out of the total 36 patients aged over 80 years, 22 were subject to surgical procedures with curative intention (in 16 of these subjects a right hemicolectomy was performed and in 6 a left hemicolectomy), the remaining14 subjects receiving palliative surgical treatment. The factors that negatively influenced post-surgery evolution were diabetes, pre-existing cardiac pathology, evolutionary stage of cancer and the urgency character. In the group with resections, we found a 27.2% (6 cases) morbidity rate and a 18.2% (4 cases) mortality rate. In patients undergoing palliative surgery, the morbidity rate was 28.5% (4 cases) with a mortality rate of 14.3% (2 cases).

Conclusions: Between the 2 groups of patients postoperative morbidity and mortality appeared to be equal. Most often, they were caused by pre-existing cardio-pulmonary pathology and by the urgency character of the surgery, that did not allow a proper rebalancing, and in a lesser extent by the type of surgery. During those 12 years, the percentage of patients aged over 80 years diagnosed annually with colorectal cancer remained constant. Despite advanced age and associated comorbidities, we consider the postoperative evolution to be satisfactory, although postoperative morbidity and mortality were higher than in the general population, according to the literature. Preoperative compensation of associated comorbidities, a surgical procedure performed by experienced teams, together with the ensuring of adequate intensive therapies are required to reduce postoperative risks.

Key words: colo-rectal cancer, morbidity, mortality, old age

Introduction

Colorectal cancer is the fourth most frequent type of cancer in the world, with a total of 875000 new cases/ year (WHO, 2000), estimated to 8.5% of all new cancer cases / year (1,2,3).

In Romania, colorectal cancer is the most common gastrointestinal malignancy, representing the third leading cause of cancer death after lung and breast cancer (1,4).

The highest incidence of colorectal cancer is in patients pertaining to the 60-69 years age group. Since in Romania, based on demographic studies, the population above 65 years old will double in the next 50 years, we considered a more detailed analysis of the factors that can influence the development of complications and occurrence of postoperative deaths in patients older than 80 years old that are operated on for colorectal cancer to be useful (1,2,3).

Method

This article summarizes a retrospective analysis of patients over the age of 80 years old diagnosed with and treated for colorectal cancer in the IVth Surgical Department of the Bucharest Emergency University Hospital, during a period of 12 years, between 2000-2011. The focus of the analysis was the type of surgery, postoperative morbidity and post-operative mortality.

Out of a total of 297 patients diagnosed with colorectal cancer, 36 cases were identified with an age above 80 years old. 4 cases were excluded due to the fact that they refused the surgical intervention, being fully aware of the risks.

Special attention was payed to the signs and symptoms that oriented towards this digestive disorder.

Two groups of patients were created out of the selected 36 patients:

- Group A (22 cases) – patients that were operated with curative intent;
- Group B (14 cases) – patients that were operated with palliative intent (5).

Results

Of the 36 chosen cases, the average age was 83 years (range 80 to 91 years old). Most subjects were admitted reporting various symptoms that required additional tests in order to reach a diagnosis. The most frequent symptom was slow or no passage of stool (18 cases). Other reported symptoms were: rectal bleeding, anaemia, perforation, weight loss.

Colorectal cancer diagnosis was established in most cases by using colonoscopy (24 cases – a total of 66%).

In 22 of the 36 cases, the subjects were operated on with the intention to cure (Group A). In 16 of these cases a left hemicolectomy was performed and for the remaining 6 a right hemicolectomy. All interventions were classic (5,6).

Group B consisted of 14 patients that were operated on with palliative intent, mainly due to the advanced stage of the disease, the presence of systemic metastases, local invasion and a very poor biological status of the patient (5,6) (*Fig. 1*).

In 8 cases, the surgery was performed within 24 hours from admission, due to presentation signs and symptoms. These patients had the highest percentage of morbidity and mortality.

10 subjects suffered complications (6 of the patients operated with intent to cure – 27.2% and 4 of the patients operated with palliative intent – 28.5%), representing a total of 27.7%of the 36 cases.

The most frequent complications were cardio-pulmonary (5 cases). The remaining complications were sepsis (2 cases),

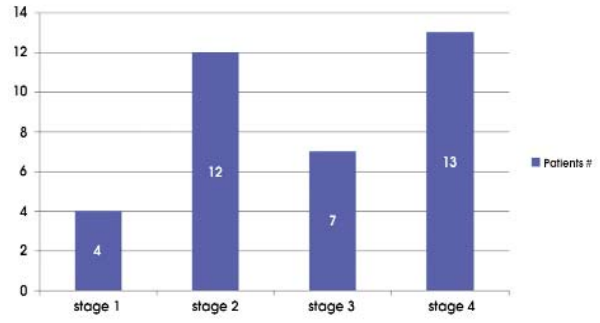

Figure 1. *Pathologic stage at time of surgery. Values are numbers of patients*

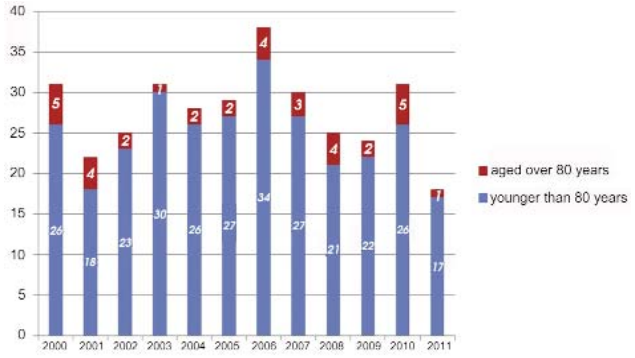

Figure 2. *The distribution by year of the number of patients diagnosed with colorectal cancer in the 4th Clinic of Universiry Emergency Hospital Bucharest*

Table 1. *General characteristics, presentation and modality of diagnosis for colorectal cancer patients 80 years of age and older who underwent surgical intervention and were treated at Bucharest Emergency University Hospital*

Mean age, y	83
Range (minimum-maximum), y	80-91
Sex, M/F	19/17
Presentation	
Asymptomatic	4 (11.1%)
Symptomatic	32 (88,9%)
Obstruction	18
Blood in stool	10
Anemia	4
Perforation	2
Weight loss	2
Diagnostic examination	
Colonoscopy	24 (66%)
Computerized tomography scan	8 (22%
Other	4

Table 2. *Complications after surgical intervention*

Congestive heart failure exacerbation	3
Pneumonia	2
Myocardial infarction	1
Sepsis	2
Postoperatibe bleeding	1
Prolonged ileus	3
Fistula	2
Death	6

fistula (2 cases) and postoperative bleeding (1 case).

The mortality rate was 18.2%(4 cases) for Group A and 14.3% (2 cases) for Group B.

Discussion and Conclusions

Throughout the 12 years considered, the percent of patients aged over 80 diagnosed annually with colorectal was constant (*Fig. 2*). In the two analysed groups the postoperative morbidity and mortality were comparatively equal, most frequently caused by prior cardio-pulmonary morbidity that deteriorated post-operatively and by the emergency nature of the surgical intervention, and less frequently by the surgical intervention type (7), (*Table 1*).

Despite advanced age and the associated morbidity, we consider postoperative evolution satisfactory, although the post-operative morbidity and mortality were higher than the ones encountered in the general population, according to current literature (8). Preoperative control of preoperative morbidities, the experience of the surgical team, and the short duration of the surgery, leading to a reduced duration of the general anaesthesia and an appropriate ICU treatment, are some of the most important factors that need to be considered in order to reduce postoperative risks for this group of patients (8-13).

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