

LARGE BOWEL OBSTRUCTION CAUSED BY COLORECTAL CANCER

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Abstract

Colorectal cancer represents the third most common cause of malignancy and is the most common cause of large bowel obstruction.

Purpose: The aim of this study was to present our experience in the management of patients with obstructive colorectal cancer.

Material and methods: This is a retrospective study which includes eight patients that have undergone emergency surgery for large bowel obstruction as a cause of colorectal cancer from January 2016 – 2018 at the Clinical Hospital of Tetove.

Results: there were three male and two females in our study. The average age of patients was 72.5 years (from 52 – 82 years). For hemicolectomies, and one Hartmann's resections are performed. Average hospital stay was 14 days and there were three patients with complications, respectively one with anastomotic leakage and two with wound infection.

Conclusion: Occlusive colorectal cancers represent sometimes a challenge even for experienced surgeons. A radical surgical treatment is indicated whenever it is possible.

Key words: large bowel cancer, obstruction, surgery, emergency

Introduction

Mechanical ileus refers to the obstruction of the intestine which disables normal intestinal passage. This obstruction may be partial or complete and one of the frequent causes of this condition may be colorectal malignancy.

According to the results of many studies it is estimated that about 60% of the large bowel occlusions in elderly patients is as the result of colorectal cancer 1,2. Two thirds of colorectal cancers are situated at the left colon and one third at the level of right colon3. Most of the patients with colorectal cancers have an asymptomatic evolution over a long period of time, whereas about 20 % of them develop acute intestinal obstruction4,5,6. A diagnosis of large bowel obstruction can be made by anamnestic data, the objective examination, and the additional investigations such as colonoscopy and abdominal CT. Surgical treatment of colorectal cancer depends on location of obstruction, the presence of complication such as perforation, peritonitis, general condition of the patient and the presence of metastasis at the time of diagnosis7. The preferred procedure during operation is one stage surgery (resection and anastomosis of the affected part of the colon) but in cases of presence of any complication mentioned above the Hartmann procedure must be a technique of choice.

Material and methods

This is a retrospective study conducted at the Department of Surgery of the Clinical Hospital of Tetove from January 2016 to January 2018. Five patients that have undergone emergency surgery because of bowel obstruction due to colorectal cancer was the subject of this study. All relevant data such as age of patients, sex, preoperative examinations, operative findings, histopathology

results and length of hospital stay are presented in this study. Postoperative morbidity include all early and late complications registered in the operated patients.

Results

From five patients included in this study three of them was been men and two women, with an average age of 72.5 years (from 52 to 82 years). All the patients are presented in our department with signs of a mechanical ileus. The main complaints of patients during admission have been diffuse abdominal pain, constipation, abdominal distension, vomiting , blood in the stool, decrease in stool caliber (thickness), loss of appetite, loss of weight, weakness and anemia.

After admission all of them were initially treated conservatively by nasogastric aspiration, IV fluids, antispasmodics, anti vomiting and stopping feeding from the mouth. After that laboratory and clinical examinations, such as abdominal CT and ultrasound was performed in all patients. In three of them cause of obstruction was a presence of tumor in the left colon, in one other in the rectum whereas the right sided tumor was diagnosed also in one patient. In one patient bowel perforation on tumor site was detected by abdominal CT, whereas in another one liver metastases were present. Urgent surgical intervention was performed in all patients. In two of them a left hemicolectomy were done, in one resections of sigmoid colon, in another one the right hemicolectomy, whereas in one patient because of perforation of large bowel the Hartmann procedure was realized. There were two patients with post wound infections. The median length of hospital stay was twelve days. In three patients adenocarcinoma was well and moderately differentiated, whereas in two of them poorly differentiated. According to the TNM Classification of Malignant Tumors, two patients were on stage IIIA, two on IIIB, and one on IIIC. In all patients, at least ten lymph nodes were removed . In for patients lymph nodes were positive while in one patient negative.

Discussion

Colorectal cancer is a common cause of morbidity and mortality all over the world with the high incidence in developed country^{2,3}. Early diagnosis of colorectal cancer is the main factor that determines the five year survival rate. This is the reason why the use of screening programs for early detection of CRC are widely implemented all over the world¹². The incidence of Colorectal cancer is increasing after age 40, whereas the peaks of this disease is between the ages of 60-75 years¹⁵.

According to data of our study result that males and females have the equal risk for the development of colorectal cancer. In many other studies male gender was reported to be a poor prognostic factor ⁹. A significant percentage of patients with colorectal cancer present in emergency department with acute bowel obstruction^{11,13,14}. It is estimated that about 15 – 25 % of the patients with CRC develop this complication. All the patients with bowel obstruction due to CRC should be treated with urgent surgical interventions.

There are several options for surgical treatment of acute bowel obstruction due to colorectal cancer. This options depend on many factors such as location of obstruction, TNM staging, presence of complications such as perforation and peritonitis, presence of chronic disease, patients general condition etc¹⁶.

During surgery resection of the involved segment of the colon followed by the end to end anastomosis is the preferred procedure. In cases of inoperable tumor mass or poor general condition of the patient, Hartman procedure must be a technique of choice for treatment of this patients⁷.

The most important prognostic factor in colon carcinoma is tumor stage after surgery. Another important prognostic factor for survival of patients treated because of colorectal cancer is the degree of tumor differentiation and presence of lymph node metastasis^{8,10,17},. Today is widely accepted that if the tumor has spread to the lymph nodes the five-year survival rate decreases significantly . Greater number of affected lymph glands, is a poor prognostic factor for survival of this patients^{18,19}.

Conclusion

Treatment of bowel obstruction because of colorectal carcinoma is challenging even for experienced surgeons. Several parameters such as staging of the tumor, presence of complications, lymph node affection, general condition of the patient and experience of the surgeon should be taken into consideration when making the decision if primary bowel resection and anastomosis, or procedures without anastomosis (colostomy) would be the best solution for the patient. According to our experience we suggest that primary bowel resection and anastomosis should be the preferred method, except in cases of bowel perforation.

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