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Research Article

Decision Making in Life-Threatening Stage IIIC Colon Cancer with Massive Pr Bleeding

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Abstract

Colorectal cancer is the 3rd most common malignant neoplasm and the 2nd leading cause of cancer death. In the presence of localized colon cancer, the first-line treatment is usually resection. In patients with advanced metastatic disease, which is estimated to be 20%-30% of cases, the management becomes far more complicated. Most patients who present with advanced disease will undergo non-curative primary resection of their tumor as a palliative approach. So far, there are limited publications regarding the outcomes of primary resection in case of life-threatening complication stage IIIC colon cancer.

Keywords: Colon cancer; Intestinal obstruction; Rectal haemorrhage; Survival rate; Primary cytoreduction

Introduction

In most common cases, patients with left colonic neoplasm develop in the advanced stage occlusive complications that cannot be resolved by primary cytoreduction due to pure organic invasion. A palliative approach is recommended in these cases.

Bowel obstruction is defined by clinical and radiographic evidence of an intestinal obstruction, distal to the Treitz ligament, secondary to either a primary intra-abdominal tumor or, rarely, an extra-abdominal malignancy.

The mechanisms of intestinal occlusion are classified into mechanical occlusion (related to extrinsic compression of the intestine or endoluminal obstruction), functional (associated with tumor infiltration of autonomic nerve plexuses) and paraneoplastic syndromes. However, a broader differential diagnosis should be considered, as intestinal occlusion may be secondary to non-malignant etiologies.

Patients typically presenting with abdominal pain, anorexia, nausea, and vomiting depending on the level of obstruction may indicate advanced disease. The current diagnostic standard for intestinal occlusion is a CTAP with contrast; however, given the general accessibility, low cost, and reasonable sensitivity to detect complete obstruction, simple abdominal radiography is an initial assessment tool for suspected intestinal obstruction.

In addition to location and obstructive mechanism, oncological variables (eg. response to chemotherapeutic therapy, general prognosis, advanced status) should be considered to optimize palliative treatment of intestinal occlusion.

The ultimate goal is to support the patient by controlling the disease or the level of symptoms [1].

Purpose

Currently, NCCN (National Comprehensive Cancer Network) guidelines consider that the gold standard in the treatment of advanced left colon cancer is systemic chemotherapy without primary cytoreduction [2]. The 5-year survival rate in this case reaches only 14%.

The aim of this study is to determine whether patients with advanced left colon cancer with locoregional invasion can benefit from primary cytoreduction in the event of life-threatening complications and what would be the survival rate in this case.

Materials and Methods

The study was performed following the evolution of a 74-year-old female with typical symptoms for bowel obstruction.

Data collection included the patient's condition at admission, imaging, lab samples, and type of intervention, postoperative evolution, complications (local or general), discharge status and histopathological examination of the resection sample.

The first stage of the study was the patient medical history. The 74-year-old patient presented to the hospital for intense abdominal pain, accompanied by abdominal distension and lack of intestinal transit, installed 5 days prior, which worsened on the day of hospitalization with significant rectal haemorrhage. Inspection revealed abdominal distension, pallor and the rectal haemorrhage.

Mechanical occlusion of the intestine was suspected due to a tumor which now was bleeding. Initially, lab samples revealed leukocytosis with neutrophilia and normocytic normochromic anemia caused by the bleeding which raised the suspicion of a massive abscess tumor or a diastatic perforation.

A CTAP was performed, being considered the gold standard for the diagnosis of this condition, revealing the presence of a stenotic tumor formation in the descending colon and partially of the splenic

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flexure on a segment about 9 cm long, with dilation of the colic tract upstream and stasis, accompanied by loco-regional lymphadenopathy of 8 mm, locoregional invasion in the spleen hilum and tail and body of pancreas, unresectable, for which palliative approach would usually be recommended [3,4] (Figure 1).

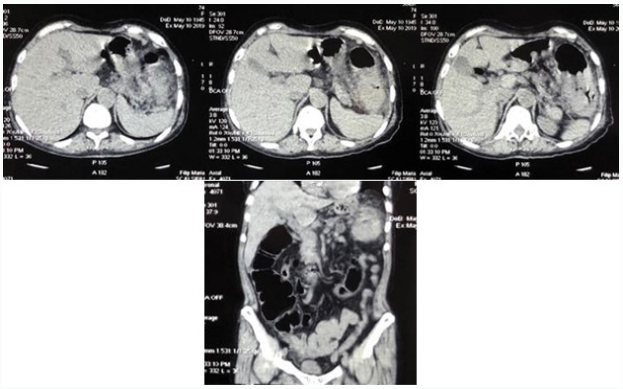

Figure 1: CT AP of the patient.

Due to the massive rectal hemorrhage, a life-threatening situation, with no response to the usual hemostatic treatments, the multivisceral resection was chosen in compliance with oncological principles. The patient was submitted to surgical procedure under general anesthesia. After exploring the local extension of the tumor, an en bloc partial colectomy with body-tail spleno-pancreatectomy was performed. Due to proximal colon distention, a temporary colostomy was preferred.

Patient started adjuvant chemotherapy with capecitabine and was advised to use for 1 year.

Results

There were no local complications postoperatively. The blood results noted the absence of thrombocytosis, a common complication after splenectomy and the anemia due to pre- and intraoperative haemorrhage was corrected by administering the iso Rh is o group blood.

Histopathological examination of the resection piece revealed a T4aN2Mx. The resection margins were within the limits of oncological safety. The patient is being monitored with annual CT, tumor markers and colonoscopy. The last CT and colonoscopy in February 2023 showed no signs of recurrence and the tumor markers were in normal range.

The survival rate was extended to 3 years postoperatively, without recurrence of the neoplasm and the reintervention was not necessary (Figure 2 and 3).

Discussion

In 2018, colorectal cancer was ranked third worldwide in terms of incidence but second in terms of mortality, with over 500,000 new cases diagnosed only in Europe, and 245,000 deaths.

In Romania, one of the highest rates for colorectal cancer incidence and mortality in Europe was estimated based on the data available in 2008. Ever since, consistent data are missing. Hence, in 2008, when the data were collected, Romania had similar rates with the Hungarian population-43.8/100,000 inhabitants' incidence and 25.2 mortality in females, and 93.8 incidence and 53.3 mortality in males, while in Romania, we had 43.9 incidence and 20.2 mortality in females and 88.6 incidence and 46.9 mortality in males [5,6]. We can

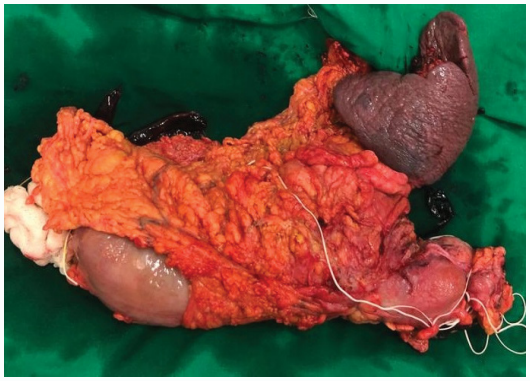

Figure 2: Postoperatory specimen.

Figure 3: Postoperatory specimen.

easily observe that Hungary or Romania have higher rates than most of the other European countries [6-9].

Curative resections are those that ensure favorable postoperative results in early cases. The resection is negatively influenced by the presentation of patients in advanced stages of the disease, thus limiting the possibilities of curative surgery. For these cases a palliative approach is recommended.

Approximately 30% of patients with rectal cancer present with metastatic disease. Many of these patients have symptoms of bleeding or obstruction. Several treatment options are available to deal with the various complications that may afflict these patients. Palliative treatment strategies for advanced stage rectal cancer should be individualized to patients according to their symptoms. These patients can be treated with chemotherapy or combined chemoradiation therapy in conjunction with a procedure, if necessary, to relieve their symptoms. Local interventions can often effectively treat symptoms and increase quality of life. Options include noncurative resection, diversion procedures, endoscopic stenting, and laser or argon photocoagulation [10].

Although the most appropriate treatment option is not always evident, a careful multidisciplinary approach with the surgeon playing the central role of determining when aggressive operative intervention is warranted can ensure the most appropriate treatment strategy is devised. The goals in palliation should include the alleviation of symptoms, enhancing quality of life and improving comfort [11]. A thorough understanding of treatment options will ensure the patient is offered the most effective therapy with the least amount of associated morbidity.

However, this patient with stage IIIC left colon cancer was able to benefit from primary cytoreduction in case of life-threatening complications. It should also be noted that the surgeon's experience is essential in reducing the rate of reinterventions and complications.

Conclusion

In this case, with advanced left colon cancer, loco-regional invasion, a multivisceral resection was chosen at the expense of the palliative approach due to life-threatening haemorrhage. Postoperative complications were not present, and the survival rate was extended to 3 years postoperatively so far.

Probably, in absence of the life-threatening elements, this patient would not have benefited from such an extensive intervention, with major vital risk, taking into account comorbidities and the patient's age. We were pushed by the massive haemorrhage in the operating room and the operation outcome was a very favorable one.

I believe that in advanced cases of colorectal cancer, a well-calculated intervention, under optimal conditions and with appropriate preoperative preparation, can bring great benefits to the patients. However, we cannot neglect the importance of periodic colonoscopy in the population over 40 years old.

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