



Colon tumor with abscess and acute appendicitis: A case report

Tumor de Cólon com abscesso e apendicite aguda: Um relato de caso

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ABSTRACT

Introduction: Colorectal cancer (CRC) is the third most frequent type of cancer in the world in both sexes, starting in the large intestine and extending to the lower part of the digestive system. However, complications such as abscess formation, bleeding, perforation, and obstruction arise in some patients with colon cancer. The most important risk factor is family history of CRC and genetic predisposition to the development of chronic bowel diseases, as well as diet, excessive alcohol consumption, and smoking. When identified early, it is a pathology that has a good prognosis, so the importance of colonoscopy as a screening test is evident. **Objective:** to demonstrate the importance of tests to identify colon cancer early to improve a prognosis and avoid possible complications. **Methods:** From a medical case that occurred at the Santa Casa da Misericórdia de Presidente Prudente, and its medical records, information was collected to carry out this report. **Results:** RCC is characterized by the appearance of metastases. In addition, this type of neoplasm occurs more commonly in the elderly, as in the case of the patient in this study. The medical approach depends on the joint evaluation of the clinical-laboratory-radiological picture presented by the patient, and its treatment varies according to the staging. **Conclusion:** The treatment of RCC varies between endoscopic resection of malignant polyps, surgery alone, and surgery associated with chemotherapy. Therefore, identifying the disease as early as possible significantly increases the chances of cure, along with proper treatment and follow-up.

Keywords: Colon Cancer, Complications, Treatment.

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INTRODUCTION

Colon cancer is a malignant tumor in which it is the second most frequent cause of mortality among cancers, regardless of the sex affected and considered the third most common type of cancer worldwide (FIDELLE et al. 2020). The colon is an integral part of the large intestine, comprised of the cecum, ascending colon, transverse colon, descending colon, sigmoid colon, rectum, and anal canal (TODARO et al. 2010). This type of neoplasm has a survival rate of 91% if detected in stage I of the disease, while if detected in stage IV this rate reduces to 11% (BADER et al. 2018), and with several treatment methods there have been significant improvements in terms of quality of life and the survival rate of patients (ZHOU et al. 2023).

However, complications such as abscess formation, bleeding, perforation, and obstruction arise in some patients with colon cancer. Therefore, it is extremely important to analyze a rare condition that has an incidence of only 0.3%, retroperitoneal abscess. This is caused by tumors in the ascending and descending colon due to tumor invasion and perforation. Therefore, actively treating the abscess and then transitioning to standard colon cancer treatment can prevent patient death and improve treatment quality (ZHOU et al. 2023).

In addition, colorectal cancer is associated with many etiologies that play a large role in the development of cancer, including environmental factors such as obesity, diet, diabetes and inflammation, genetic and epigenetic changes that result in the transformation of normal mucosa into adenocarcinoma (LOU et al. 2019). Colorectal neoplasms are called sporadic in 60% to 65% of cases, in individuals who do not have a genetic predisposition or without a family history of colon cancer. Therefore, it is often associated with risk factors related to lifestyle, alcohol consumption, smoking, and diet (FIDELLE et al. 2020). Age is also considered a risk factor, as people over 50 years of age are more likely to be affected by colorectal neoplasia and people under 50 years of age have a 4% chance (ESMEETA et al. 2022).

The beginning of the development of CRC begins with the growth of mucous membrane tissue, receiving the name of polyps, which is an initially non-cancerous tumor that can develop both in the colon and in the inner wall of the rectum, over time polyps develop great carcinogenic potential and can be fatal if not removed early, polyps have several forms in RCC such as tubular adenomas, villous adenomas, tubulovillous adenomas, serrated, inflammatory, and hyperplastic adenomas (ESMEETA et al. 2022).

Adenoma polyps manifest when the tissue has undergone mutations and has multiplied and become a tissue with a high chance of developing malignancy, in most RCCs they arise in the



aberrant crypt stage that progresses to early adenoma and then to advanced adenoma exceeding 1 cm of growth when observed, the features of colorectal cancer are developed as genetic mutations accumulate, by new studies, epigenetics and gene instability are associated with neoplastic lesions in the colon such as adenomas, polyps, and aberrant crypt foci (ESMEETA et al. 2022). Although polyps can enter the mucosa reaching the lymph nodes and adjacent tissues and can cause metastasis, RCC can metastasize to bones, lungs, and pancreas through the hematogenous route, through the liver through the V.porta, and into the peritoneum (AHMED, 2020).

The signs and symptoms of CRC depend on the location of the neoplasm, in right colon cancer there is the presence of iron deficiency anemia and blood loss in the stool due to ulcerations, in this case the chance of fecal obstruction is low since it is larger than the colon on the left side. In left colon cancer, there are symptoms of a change in bowel habits (constipation and diarrhea), cramps, gas, and persistent abdominal pain. These symptoms come from the fact that the left colon is smaller in caliber and contains semi-solid stools instead of liquid ones (AHMED, 2020).

Few screening tools have ever been established to detect CRC in its early stages, such as colonoscopy, sigmoidoscopy, fecal occult blood test, and fecal immunohistochemical testing. Colonoscopy is the procedure used to detect abnormalities in the large intestine and is one of the few screening tools that have already been established for the detection of CRC in its early stages, therefore, the importance of screening examination through colonoscopy is evident, especially in patients aged 50 years and older (ESMEETA et al. 2022). During colonoscopy, the polyps will be removed and biopsied to make a pathological diagnosis. The anatomopathological examination of multiple colonic biopsies and the cytological analysis of stenosis brushing are generally used as a diagnosis (CAPPEL, 2008).

CT (computed tomography) has an accuracy of approximately 85% in detecting liver metastases, whereas magnetic resonance imaging is used in the detection of focal liver metastases, particularly small, because it is considered more accurate than CT for this diagnosis. Endosonography has been more widely used for the staging of rectal cancer (CAPPEL, 2008).

Among the variables that determine the prognosis of patients diagnosed with colorectal neoplasia are the level of depth of tumor invasion in the intestinal wall, involvement of regional lymph nodes, and distant metastases. When identified early, it is a pathology that has a good prognosis, and surgery is its primary treatment, which can be considered with curative intent, when it promotes the complete removal of the primary tumor with safety margins added to the resection of regional lymph nodes, mesocolon and vascular supply. Even in the case of distant metastases, the



tumor should be resected, whenever possible, to avoid future complications (obstruction, perforation, and hemorrhage) (BARILE et al. 2020).

The treatment performed will depend on the TNM score (FIDELLE et al. 2020). This score is performed considering the TNM staging system of the Classification of Malignant Tumors, which is based on the anatomical extent of the disease, taking into account the characteristics of the primary tumor (T), characteristics of the lymph nodes of the lymphatic drainage chains of the organ in which the tumor is located (N), and the presence or absence of metastases (M) (INCA, 2022).

Where the tumor occurs in the intestine has implications for treatment. That is, colon cancer and rectal cancer are two distinct cancers that require different approaches, also depending on their stage. Surgery is the main curative treatment for patients with RCC without metastasis. In more advanced cases of rectal cancer, neoadjuvant treatment can reduce tumor burden and even tumor stage, and may be necessary to optimize the chances of a successful resection (KUIPERS et al. 2015).

The main treatment for colon cancer is surgical resection of the tumor, for tumors that are in stage III or stage II of high risk, an adjuvant chemotherapy-based therapy is required, which uses FOLFOX (5-FU/leucovorin/oxaliplatin) as standard treatment, which should be performed before surgery in order to reduce tumor burden and recurrence. For metastatic diseases, immunotherapy is used (FIDELLE et al. 2020).

CASE DESCRIPTION

Patient R.T.A., female, 69 years old, obese, hypertensive. She sought care stating that for 1 month she had been presenting diffuse abdominal pain, prostration, weight loss, malaise and on physical examination she presented a palpable mass in the right hypochondrium. A computed tomography scan of the upper abdomen showed the presence of a lobulated expansive lesion in the ascending colon wall, which protrudes into its lumen and determines occlusion/subocclusion of the same and distension of the ascending colon and small bowel loops with fluid level. A computed tomography scan of the chest was performed, which found multiple nodular images randomly distributed throughout both lungs, measuring up to 15 mm, compatible with secondary lesions. A surgical approach was indicated for the patient, due to the identification of malignant neoplasm of the right colon with liver and lung metastasis. Extended right colectomy + omentectomy + suture of the inferior mesenteric vein + lavage of the cavity + coloenteroanastomosis was chosen for an advanced splenic angle tumor invading the mesenteric vein with pus in the abdominal cavity and

acute suppurating appendicitis. The patient progressed very well, receiving an oral diet on the fifth postoperative day, and was discharged on the sixth day.



DISCUSSION

Colorectal cancer is characterized by the appearance of metastasis, those that are observed at the time of diagnosis make up about 25% of cases, while another 20% of cases metastasize



throughout the course of the disease (MILLER et al, 2024). The patient in the case presented metastasis in the liver that was discovered at the time of the diagnosis of the disease, which is a common characteristic in this type of malignant neoplasm. In addition, this type of neoplasm occurs more commonly in the elderly, especially after the age of 60, as in the case of the patient in this study (BALDIM et al. 2022).

Active search for lung and liver metastases by chest and abdominal CT is recommended preoperatively, as is CEA, to provide a basis for postoperative monitoring (GIRARDON et al. 2022).

The diagnosis is established by anatomopathological, immunohistochemical and in situ hybridization tests. These are complex medical procedures, which involve alterations found in the microscopic study of the lesion. Several factors can influence this interpretation. Thus, the medical approach to the diagnosis depends on the joint evaluation of the clinical-laboratory-radiological picture presented by the patient (GIRARDON et al. 2022). In the case reported, the patient had a histopathological picture associated with an immunohistochemical profile compatible with moderately differentiated, colonic infiltrative adenocarcinoma.

The treatment of colorectal cancer varies according to its staging, ranging from endoscopic resection of malignant polyps, surgery alone, and surgery associated with chemotherapy (AHMED, 2020). In the case reported here, one of the recommended treatments was performed, surgery alone, which was enlarged right colectomy.

Identifying the disease as early as possible significantly increases the chances of cure, along with appropriate treatment and follow-up, highlighting the relevance of prevention in people from risk groups. Therefore, it is essential to carry out a personalized evaluation to determine the best therapeutic approach against cancer, aiming at efficacy in controlling the disease and a more favorable prognosis (AHMED, 2020).

METHODOLOGY

From a medical case that occurred at the Santa Casa da Misericórdia de Presidente Prudente, together with his medical record, information was collected to carry out this case report. In addition, a search for information was carried out in databases.



RESULTS

Colorectal cancer is characterized by the appearance of metastases, since the patient in the case presented metastasis in the liver that was discovered at the time of the diagnosis of the disease. In addition, this type of neoplasm occurs more commonly in the elderly, as in the case of the patient in this study. The medical approach depends on the joint evaluation of the clinical-laboratory-radiological picture presented by the patient, and its treatment varies according to the staging, ranging from endoscopic resection of malignant polyps, surgery alone, and surgery associated with chemotherapy.

CONCLUSION

Treatment of colorectal cancer ranges from endoscopic resection of malignant polyps, surgery alone, and surgery plus chemotherapy. Therefore, identifying the disease as early as possible significantly increases the chances of cure, along with appropriate treatment and follow-up, highlighting the relevance of prevention in people from risk groups.



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