




A CASE STUDY ON METASTATIC COLORECTAL CANCER OBSTRUCTION

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ABSTRACT

Introduction: Colorectal cancer (CRC) is a malignant neoplasm that affects the large intestine, being a multifactorial disease, with both external and genetic risk factors. The initial signs are varied, depending on the nature and location of the tumor. Colonoscopy is considered the gold standard for the detection of colorectal neoplasia and is considered the main diagnostic method. Its treatment is multifaceted and depends mainly on staging, which consists of the process of determining the extent and spread of cancer. Evaluation of intra-abdominal and pelvic metastases should be performed by ultrasound or computed tomography. Currently there are several modalities, whether therapeutic or palliative, isolated or combined. **Discussion:** Colorectal cancer accounts for approximately 10% of all cancer diagnoses annually. As reported in the case, the main signs and symptoms that patients present include changes in bowel habits. The combination of different therapeutic modalities, such as surgery, chemotherapy, and radiation therapy, can offer better results and should be tailored to the individual needs of each patient. **Conclusion:** The high

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incidence of CRC and the difference in treatment results, according to the stage of the disease, justify efforts for early detection and screening in a population considered at risk for the disease.

Keywords: Colorectal Cancer. Treatment. Diagnosis. Metastasis.



INTRODUCTION

Colorectal cancer (CRC) is a malignant neoplasm that affects the large intestine. The colon emerges as the most susceptible site to primary neoplasms, including adenomas and adenocarcinomas, so CRC is considered a frequent public health problem. It is now the second most prevalent cancer and fourth in mortality, resulting in approximately 530,000 deaths annually. In addition, it is notable that its occurrence is more common in men, especially after 50 years of age, considered the third most prevalent cancer in men; its occurrence is also notable in women, being the second most diagnosed cancer in women (TOLEDO et al., 2023).

The early signs of colorectal cancer are varied, depending on the nature and location of the tumor. Tumors located in the right colon usually cause diarrhea and diffuse abdominal pain, while more advanced stages can induce anemia and the presence of palpable masses in the right lower quadrant. In contrast, tumors in the left colon are usually characterized by progressive constipation, narrow stools, and occasionally rectal bleeding. Tumors in the rectum, on the other hand, often cause rectal bleeding, mucous secretion, and a persistent sensation of incomplete evacuation (DEKKER et al., 2019).

CRC is associated with the population's lifestyle, with risk factors such as smoking, alcoholism, sedentary lifestyle, inadequate diet such as a diet rich in red and processed meat, being a multifactorial disease, with both external and genetic risk factors. Inherited syndromes, such as Lynch syndrome and familial colorectal cancer, such as polyposis syndromes, are recognizable, with distinct features that aid in diagnosis. While polyposis syndromes stand out for the presence of multiple polyps, Lynch syndrome is neglected due to its morphological presentation similar to sporadic lesions; contribute to increased risk (TOLEDO et al., 2023).

Early diagnosis is key, and for this, the U.S. Preventive Services Task Force (USPSTF) recommends some screening tests, which include high-sensitivity guaiac fecal occult blood test (gFOBT), fecal immunochemical test (FIT), STOOL DNA-FIT (sDNA-FIT; Cologuard) sigmoidoscopy, computed colonography (CT colonography) (GUPTA, 2022). Colonoscopy is considered the gold standard for the detection of colorectal neoplasia and is considered the primary diagnostic method for evaluating a positive less invasive screening test, whether that test is based on the evaluation of feces, serum (blood), or colorectal imaging (SCHREUDERS et al., 2015).

In addition, proctological exams, such as inspection, palpation, digital rectal examination, anoscopy, are essential for accurate diagnosis. These tests should be performed in people with signs and symptoms suggestive of cancer (lower gastrointestinal

bleeding, abdominal mass, abdominal pain, weight loss and anemia and change in bowel habits; along with a complete anamnesis and complementary tests. About 95% of RCC cases originate from the adenoma-carcinoma sequence, with slow evolution, leading to a mostly asymptomatic premalignant stage (DEKKER et al., 2019).

According to the American Cancer Society (ACS), screening is recommended for medium-risk individuals, over 50 years old, through stool or imaging tests. These people should have regular screening until the age of 75. Between 76 and 85 years of age, screening tests should be based on the citizen's preferences, current health status, life expectancy and previous screening history (BERNHARDSSON et al., 2014). CRR screening in Brazil follows the determinations of the Primary Care Booklet issued by the Ministry of Health (MS), which recommends that CRC screening in adults be done between 50 and 75 years of age, through fecal occult blood (PSOF), colonoscopy or sigmoidoscopy (CONITEC, 2010). However, the Brazilian Society of Coloproctology (SBCP) stated that it follows the guideline of the American Cancer Society, which recommends that individuals at average risk for colorectal cancer undergo screening exams from the age of 50 (SBCP, 2023).

The treatment of colorectal cancer is multifaceted and depends mainly on staging, which consists of the process of determining the extent and spread of the cancer. The primary objective of preoperative staging is to identify the local and regional extent of the primary colorectal cancer (CRC) lesion. However, it is equally essential to investigate possible spread at a distance. The dosage of carcinoembryonic antigen (CEA) plays a significant role in the patient's prognosis (CORDEIRO, 2004).

Evaluation of intra-abdominal and pelvic metastases should be performed by ultrasound or computed tomography (CT) scans. The investigation of lung metastases can be done through clinical parameters and chest X-rays. Initial staging of RCC is often based on clinical evaluation and imaging such as CT, MRI, and transrectal ultrasound. This approach constitutes the clinical staging, essential for the therapeutic definition, delimitation of surgical margins with curative intent and precise location for surgical staging. Therefore, it is a complex process that involves the segmentation of evaluation times into pre, intra and postoperative, with a series of tests and clinical evaluations that aim to provide an accurate diagnosis and appropriate treatment (CORDEIRO, 2004).

Currently there are several modalities, whether therapeutic or palliative, such as surgery (consists of removing the tumor along with the part of the colon or rectum and adjacent lymph nodes), chemotherapy (an adjuvant treatment with little effect on survival, but which reduces the risk of tumor recurrence), and radiotherapy (involves the use of high-

energy x-rays to destroy cancer cells), Isolated or combined, they are commonly used. In all tumors of the lower portion of the rectum, it is often necessary to perform a temporary or permanent colostomy. All types of treatments aim at cure or palliative relief, as appropriate for each case (DEKKER et al., 2019) (DEKKER et al., 2019).

CASE DESCRIPTION

Patient M.L.E.R., 47 years old, was admitted to the emergency room complaining of intestinal obstruction with no elimination of gases and feces for 6 days, associated with abdominal distension, diffuse abdominal pain, nausea, and five episodes of vomiting. On physical examination, the patient presented with a distended, globose abdomen, tympanic on percussion, digital rectal examination without the presence of feces in the rectal ampulla, severe abdominal pain (4+/4+), and negative BD.

A non-contrast computed tomography scan was requested, which revealed a mass in the left colon adhered to the spleen, with no visible cleavage point, and the presence of liver metastasis. The therapeutic approach included surgery, performed two days after hospitalization. The surgical procedure performed was total colectomy with terminal ileostomy, splenectomy and retroperitoneal lymphadenectomy. The surgery occurred as planned, without complications.

Postoperative imaging



Images provided by Dr. Fernando Pereira de Almeida, Santa Casa Hospital.

DISCUSSION

Colorectal cancer accounts for approximately 10% of all cancer diagnoses annually. This neoplasm is the second most common among female patients (TOLEDO et al., 2023).



According to estimates, between the years 2023 and 2025, approximately 45,630 new cases of colorectal cancer are expected to arise annually in Brazil. Of this total, 21,970 cases will occur in males, while 23,660 cases will affect females (INCA, 2023).

As reported in the case, the main signs and symptoms that patients present include changes in bowel habit, such as diarrhea or constipation, and sometimes both simultaneously. In addition, patients may report enterorrhagia, abdominal pain, and the presence of a palpable mass in the abdominal region. These symptoms are important indicators and should be promptly investigated for an early diagnosis (SANTOS et al., 2024).

The first step in diagnosing colorectal cancer is the physical examination. The doctor should examine the patient's abdomen for masses or bumps that may indicate the presence of tumors or other abnormalities. In addition to abdominal palpation, the doctor may perform a digital rectal exam. This procedure consists of inserting a gloved and lubricated finger into the patient's rectum to detect changes in the rectal walls, such as masses or other irregularities (AMERICAN CANCER SOCIETY, 2023).

The surgery can be curative, aiming at the complete removal of the tumor, or palliative, focused on relieving symptoms and improving the patient's quality of life. The combination of different therapeutic modalities, such as surgery, chemotherapy and radiotherapy, can offer better results and should be adapted to the individual needs of each patient (SILVA and ERRANTE, 2017).

Detailed staging of colorectal cancer helps determine the degree of disease progression. Accurate assessment of tumor extent and the presence of metastases in distant organs is essential for therapeutic planning. This process involves imaging tests, such as computed tomography (CT) and magnetic resonance imaging (MRI), as well as endoscopic procedures and biopsies (PIRES et al., 2021). High-resolution CT increased the sensitivity of detecting liver metastases from colorectal cancer (MHCR) by 70-90%. In the initial stage of the disease, CT can detect non-neoplastic lesions of up to 1 cm in 12-25.5% of cases (AUGUSTO and BERENCHTEIN, 2015). Initial studies demonstrated an accuracy of 85-95% in identifying tumor extent by CT. The depth of wall invasion is a critical factor in the staging of RCC, and the accuracy of these tests is essential to define the treatment and prognosis of patients. The therapeutic approach varies between colon cancer and rectal cancer, indicating the need for different imaging methods for each type (CORDEIRO, 2004).

The choice of the appropriate procedure depends on the extent of the disease and the patient's general health, always aiming at the complete removal of the tumor and the improvement of quality of life. These procedures, although invasive, are essential for the



control and effective treatment of colorectal cancer in advanced stages (SILVA and ERRANTE, 2017).

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.

CONCLUSION

The high incidence of colon cancer and the difference in treatment results, according to the stage of the disease, justify efforts for early detection and screening in a population considered at risk for the disease. This is because colorectal cancer, when diagnosed early, generally has a favorable prognosis. The physical examination, in which the doctor examines the abdomen for masses or swellings and tumors or other abnormalities, are crucial for diagnosis, in addition to other complementary tests, such as colonoscopy and CT scan.

CONFLICT OF INTEREST

The authors agree that there was no conflict of interest during this case report.



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