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Case Report

Synchronous Multiple Colon Neoplasm. Case Report

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Abstract

Multifocal colorectal cancer is diagnosed in approximately 5% of all colorectal cancer patients, whether synchronous or metachronous; they have several risk factors including genetic predisposition, intraluminal spread due to tumor seeding, and chronic inflammation. We present the case of a 72-year-old woman who came to the clinic with a clinical picture of 2-year evolution characterized by constipation and sporadic rectal bleeding. A biopsy was performed through a colonoscopy, reporting poorly differentiated adenocarcinoma infiltrating a right colon tumor. and low-grade dysplasia in sigmoid colon polyps; reason for which a right hemicolectomy with sigmoidectomy and colorectal anastomosis was surgically intervened, the definitive pathological result reported adenocarcinoma in 3 different anatomical locations of the colon. This case illustrates the infrequent presentation of an adenocarcinoma present in different locations of the colon. There is still little knowledge of this form of presentation, but its prognosis is not encouraging.

Keywords: Oncology; Oncology Surgery; Colorectal Cancer

Introduction

Colorectal cancer is the second leading cause of cancer death in the United States, with adenocarcinoma being 95% more common. The term multiple primary neoplasia is used to refer to the presence of more than one cancer in the same patient, simultaneously (synchronous) or that is diagnosed up to 6 months after the first diagnosis (metachronous). Synchronous colorectal cancer accounts for 1.1% of all cases of colorectal carcinoma.

Due to the uncommonness of this malignant entity, we present the following clinical case of a woman with multiple primary neoplasia of the colon. There have been very few cases like this described in the scientific medical literature.

Clinical Case

A 72-year-old female patient with no relevant pathological history, who sought medical attention for constipation and sporadic rectal bleeding in the last two years; Physical examination in consultation revealed a moderate-sized mass on the right flank.

A colonoscopy was performed that revealed a multilobulated vegetative lesion with a malignant infiltrative appearance in the transverse colon at the level of the hepatic flexure, covered with fibrin that stenosed the lumen, and at the level of the sigmoid colon at 40cm from the anal margin, a pedunculated polyp (Figure 1).

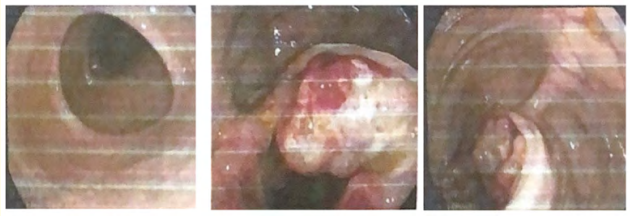

Figure 1: Colonoscopy: transverse colon at the level of the hepatic flexure multilobulated vegetative lesion with infiltrative malignant appearance, covered with fibrin that stenoses the lumen.

A polypectomy was performed in the sigmoid colon with a diagnosis of tubulovillous adenomatous polyp with low-grade dysplasia and a biopsy of a tumor in the right colon that reported infiltrating poorly differentiated adenocarcinoma.

A CT scan of the abdomen is performed, showing an intraluminal stenosing lesion measuring approximately 9.33 cm at the level of the cecum that extends to the ascending colon, with no infiltration in other organs (Figure 2).

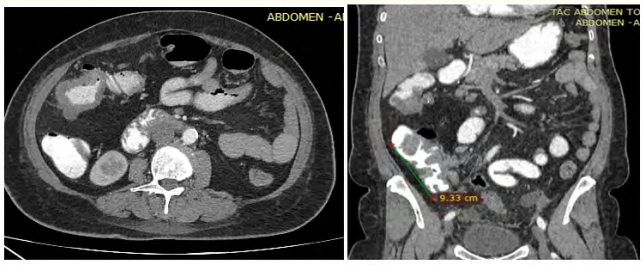

Figure 2: CT ABDOMEN: coronal cut intraluminal stenosing mass at the level of the cecum, axial cut tumor measures approximately 9.33cm at the level of the cecum.

Based on this, the patient was taken to surgery where two tumors were found in the right colon and one tumor in the sigmoid colon, where a right hemicolectomy with ileotransverse anastomosis and sigmoidectomy with colorectal anastomosis were performed.

The definitive histopathological result reported multifocal colon cancer: the first tumor located in the cecum and ileocecal valve measuring 4.5 cm x 3.7 cm x 1.6 cm compatible with well-differentiated adenocarcinoma invading the adipose tissue of the cecal appendix, second tumor located in the ascending colon 1.3cm distally from the first lesion measuring 3.5 cm x 3 cm x 1.2 cm with a diagnosis of well-differentiated adenocarcinoma that invades the peri-colic adipose tissue of the colon and a third tumor located in the transverse colon of dimensions 7 cm x 6.8 cm x 2.1 cm reporting multifocal moderately differentiated mucinous adenocarcinoma with adenocarcinoma lymph node metastases in 5/29 peri-colic lymph nodes. The patient was transferred to the clinical oncology service where adjuvant chemotherapy was indicated.

Discussion

Colorectal cancer is the second leading cause of cancer-related deaths in the United States annually and is the third most commonly diagnosed malignancy worldwide [1]. The incidence has decreased largely due to risk factor modification and screening [2]. It is the third most common in the region of the Americas [3]. The lifetime risk of developing colorectal cancer in the general population is estimated at around 5% [4].

Approximately 20% occur in the sigmoid colon, 30% in the rectum, of which 20% develop in the right colon and 10% in the transverse or left colon [5]. In our country (Ecuador) there are few reported cases [18].

The most frequent histopathological type is adenocarcinoma, which is generally preceded by an adenoma that evolves into carcinoma [4].

The development of colorectal cancer in patients with ulcerative colitis is frequently synchronous, sporadic histologically, they are associated with free oxygen radicals, which form excessive amounts in the inflamed mucosa, producing cell damage [6]. Colorectal cancer has a subregional heterogeneous nature caused by parallel genetic and transcriptional evolution within a single tumor.

Multiple primary tumor (MPT) is the presence of more than one cancer in the same patient, either simultaneously (synchronous)

or after a time from the primary diagnosis (metachronous) [7]. Both terms were issued by the International Association of Cancer Registries and International Agency for Research on Cancer and Surveillance Epidemiology and End Results; who take into account the site, the histology, the time since the initial diagnosis and consider single tumors from different parts of the same organ (colon) as multiple sites [8].

Synchronous colorectal cancer is termed when more than one primary colorectal cancer is detected simultaneously or within 6 months of initial diagnosis. The incidence of synchronous colorectal cancer ranges from 1.1% to 8.1% [9]; Multifocal colorectal cancer is diagnosed in approximately 5% of all colorectal cancer patients [10].

The incidence of synchronous extracolonic neoplasms is 0.35% in asymptomatic patients undergoing virtual colonoscopy. Synchronous tumors are extremely rare, we must bear in mind that the multiple primary tumor has a different malignancy and histological pattern, whether it occurs in the same organ or not [11].

A retrospective study with colorectal cancer database, from 2003 to 2010, from Asan Medical Center, of a total of 8368 cases, 2.6% were synchronous colorectal cancer and 1.9% were located in the same organ. Most developed 3 years after the first diagnosis, but some developed after 5 years [12].

The diagnosis of synchronous cancer has increased mainly due to technological improvements such as colonoscopy, computed tomography colonography [13].

Imaging staging is usually done with computed tomography (CT) of the abdomen and pelvis; guidelines do not support the use of PET/CT for staging colorectal cancer. PET/CTc is capable of detecting, with a significant percentage, a second synchronous primary cancer; 10.5% of patients with colorectal adenocarcinoma presented a synchronous tumor at the time of diagnosis [14].

The surgical technique in colorectal cancer depends on its location, stage, presence of other lesions and extension to other organs; where malignant tissue should be removed with an adequate margin of healthy tissue, with lymphatic drainage, to reduce morbidity and mortality [15]. Today, surgical therapy is the only curative response for this pathology, even in the presence of metastases or their treatment; with the options of conventional access, videolaparoscopic and robotic surgery [16].

Some authors have suggested performing a total or subtotal colectomy, with a more extensive resection for lesions in adjacent segments [13]. After surgery, the aim is to reduce the possibility of recurrence and increase survival. However, others recommend multiple resections to preserve the normal colon. To date there are very few studies that have investigated the surgical treatment of synchronous colorectal cancer [9].

In stages II and III that have follow-up by means of clinical, pathological and molecular biomarkers, adjuvant chemotherapy is indicated [4]. It has been shown that there is a decrease in tumor volume and a decrease in local recurrences if adjuvant radiotherapy-chemotherapy is used in rectal cancer [15].

Patients with metastatic colorectal cancer use a standard chemotherapy regimen that is: FOLFOX (oxaliplatin plus leucovorin and fluorouracil) or oxaliplatin plus capecitabine (XELOX or CAPOX), or FOLFIRI (irinotecan plus leucovorin and fluorouracil), may or may not be accompanied by monoclonal antibodies that they inhibit Vascular Endothelial Growth Factor Receptors such as: Bevacizumab or HER-1 (Cetuximab, Panitumumab) used when there is no mutation of the K-ras17 gene.

Therefore, postoperative adjuvant chemotherapy should be considered for patients with synchronous colorectal cancer.

Regarding the prognosis, there is still controversy about the report that is presented in the survival of the patients due to the minimal number of patients that present this pathology, in several studies they report that the survival was better in patients with synchronous colorectal cancer than in those with solitary cancer and in others show that no difference is found [13].

Conclusion

There is still little knowledge of this form of presentation, but its prognosis is not encouraging. This case illustrates the infrequent presentation of an adenocarcinoma present in different locations of the colon. Surgery was possible mainly due to the absence of distant metastases.

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