## **LETTER**

# SIGMOID COLON ADENOCARCINOMA: 9 YEARS FROM DIAGNOSIS TO TREATMENT

Belchor Fontes, Cornelius Mitteldorf, Renato Sérgio Poggetti, Leonardo Toledo Mota, Nivaldo Cabral, and Dario Birolini

Colon adenocarcinoma represents the third most frequent cause of death by cancer, being surpassed only by lung or stomach cancer, and it has motivated many studies in the past 5 decades.<sup>1,2</sup> The probable diagnosis is usually based on clinical data, which mainly comprise anemia, low digestive tract bleeding, abdominal pain, and weight loss. Over the last 20 years, colonoscopy became the main investigative tool for colon cancer diagnosis, allowing visualization and biopsy of diverse colonic lesions and frequently the removal of benign or malignant polyps.

At present, once the diagnosis of colon cancer is confirmed, whenever endoscopic resection is not feasible, surgical treatment is prescribed and not postponed. Colon tumor recurrence has been reported in 25% to 30% of patients undergoing surgery for stage II (AJCC) and in up to 60% for stage III (AJCC) colon cancer.<sup>3</sup> Therefore, for these patients, chemotherapy and radiotherapy are frequently indicated after surgical treatment.<sup>4,5</sup> The overall 5-year survival rate for patients with colon cancer has been reported to be up to 65%.<sup>1,6</sup> However, in the reviewed literature there was no report on the survival of patients with diagnosed colon cancer who did not undergo surgery, chemotherapy, or radiotherapy.

#### CASE DESCRIPTION

A 61-year-old woman presented low digestive tract bleeding in December 1993 with no other symptoms. A colonoscopy was then performed and revealed a vegetative

Emergency Surgery Service and LIM-62, Hospital das Clínicas, São Paulo University Medical School – São Paulo/SP, Brazil. Hospital Nove de Julho - São Paulo/SP, Brazil. Email: belchor@uol.com.br injury at 25 cm above the anal verge. The lesion had an infiltrative aspect and comprised half of the colon circumference in a 3 cm extension. The biopsy of the lesion revealed a villous adenocarcinoma. The patient refused the proposed surgical treatment and evolved with occasional bleeding episodes. After mid 2000, the patient presented infrequent episodes of abdominal pain, and in January 2001, by request of another surgeon, she underwent a second colonoscopy that revealed a sigmoid colon neoplasia that was not completely stenosed but that did not allow progression of the colonoscope. The biopsy result revealed a well differentiated tubulovillous adenocarcinoma.

Once again the patient refused the proposed surgical treatment. In July 2002, the abdominal pain worsened, weight loss and weakness occurred, and an initially discrete abdominal volume increase was observed. Thereafter, a slow and progressive increase in the severity of this clinical condition was observed. Finally, in December 2002, 9 years after the initial diagnosis of the colon cancer, the abdominal pain was intense and continuous, and vomiting was frequent. With the increasing severity of the clinical picture, the patient sought urgent medical care.

On physical examination the patient was awake and alert and had pale skin. Her abdomen was distended and painful, with rebound tenderness, allowing the diagnosis of acute abdomen with signs of peritonitis. An exploratory laparotomy was proposed and the patient agreed. Preoperative laboratory blood tests were normal except for a hemoglobin concentration of 6 g/dL. After fluid replacement and blood transfusion, the patient underwent an exploratory median laparotomy that revealed a ruptured abdominopelvic cyst involving the left ovary and adhering to pelvic organs. Voluminous mucous material had extravasated from the cyst to the peritoneal cavity. The pelvic cav-

ity was occupied by the mucous material containing cystic debris. A partial sigmoid occlusion provoked by the tumor was identified. A panhysterectomy, with removal of the pelvic debris as well as the remnants of the ruptured cyst was performed. A sigmoidectomy was performed, the rectal stump was closed with suture, the end of the descendent colon was exteriorized as a colostomy (Hartmann procedure), and the abdominal cavity was closed.

The anatomicopathologic examination of the removed tissues confirmed a 7 cm diameter tubulovillous sigmoid adenocarcinoma infiltrating the pericolic adipose tissue, without vascular, lymphatic, or perineural infiltration. One of the 11 mesenteric ganglions removed was compromised by the neoplasia. In the left ovary, a metastatic intestinal adenocarcinoma was found with the same histologic type as that of the sigmoid adenocarcinoma. The tumor was thus classified as stage IV (TNM/AJCC<sup>6</sup>).

The patient presented an uneventful postoperative course and refused the complementary chemotherapy indicated by the oncologist. Twenty four months after the surgery, the patient's weight had increased by 12 kg, she was asymptomatic, with normal values of the carcinoembryonic antigen and normal colonoscopy, abdominal CT scan, and plain thorax radiography. The patient elected to postpone the intestinal transit reconstruction with colostomy closure.

# DISCUSSION

This reported case draws attention to the long survival (9 years) of a patient with colon carcinoma without medical treatment, either through surgery, chemotherapy, or radiotherapy. The growing and metastasizing potential of colon adenocarcinoma has been intensively investigated in the last 5 decades. The type and stage of tumor (generally expressed in terms of TMN/AJCC classifications), as well as the patient's age, gender, genetic, and biochemical attributes, and even the response to environmental influences, have been discussed as possible factors influencing the growth and expansion of a colon adenocarcinoma. In the present case, the patient had no history of previous health disturbances or familial diseases deserving consideration.

Although earlier studies investigated the growth velocity of colon cancer, 8,9,10 the diagnostic tools employed in those

studies were rather limited, and no posterior and comparative studies have been reported to allow an estimation of colon tumor age, on the basis of its size when diagnosed. The localization of the tumor in the colon as well as the gender of the patient seems not to have an influence on the prognosis. The usual tumor classification system (TNM/AJCC) is based on the tumor extension on the colon wall and the presence of metastasis in lymph nodes or in distant organs. However, tumors at the same initial stage may show rapid or slow growth and may have early or late metastasis.

Furthermore, the factors governing this biologic behavior of colon cancer as well as its influence on the patient's survival have not been clearly determined.

In a recent prospective study of 2,452 patients, Staib et al.<sup>1</sup> verified that the 5- and 10-year survival rate of patients treated for stage IV colon adenocarcinoma was, respectively, 3.4% and 0%. In the present case, the patient was classified with a stage IV colon adenocarcinoma, therefore with a low probability for survival for 5 or 10 years. According to some authors, in young patients (under 40 years of age), colon adenocarcinoma usually is diagnosed in advanced stages and presents more aggressive histological types, such as mucinous adenocarcinoma or signet ring cells, and consequently has an unfavorable prognosis.<sup>11</sup>

However, it has been reported that young patients with even advanced stage colon cancer have a higher 5-year survival rate, when compared to older patients.<sup>12</sup> Therefore, the influence of patient age on colon cancer prognosis remains unclear. Several studies suggest the existence of a relationship between the patient's prognosis and the tumor cell ploidy, the presence of lymph node micrometastasis or cytokeratins, microsatellite instability, chromosomic deletion, and P53 gene activity. However, the possible clinical application of these tumor markers remains unclear.<sup>11,13</sup>

Genetic analysis of Dukes B stage epithelium colon cancer identified 23 genes that showed correlation with a poor patient prognosis, determining faster tumor growth and early occurrence of metastasis.<sup>13</sup> However, the possible role of these genes on patient survival remains to be determined.

Therefore, current knowledge based on reviewed literature does not allow the determination of the factors that contributed to the extended survival of the patient in this case report.

## **REFERENCES**

- Staib L, Link KH, Blatz A, Beger HG. Surgery of colorectal cancer: surgical morbidity and five and ten year results in 2400 patients monoinstitutional experience. World J Surg. 2002;26:59-66.
- Minsky BD, Mies C, Rich TA, Recht A, Chaffey JT. Potentially curative surgery of colon cancer: patterns of failure and survival. J Clin Oncol. 1988;6:119-27.
- Hermanek PJ, Wiebelt H, Riedl S, Staimmer D, Hermanek P. Longterm results of surgical therapy of colon cancer: results of the Colorectal Cancer Study Group. Chirurg. 1994;65:287-97.
- National Institutes of Health: NIH Consensus Conference: Adjuvant therapy for patients with colon and rectal cancer. J Am Med Assoc. 1990;264:1444-50.
- Ayanian JZ, Zaslavsky AM, Fuchs CS, Guadagnoli E, Creech CM, Cress RD, et al. Use of adjuvant chemotherapy and radiation therapy for colorectal cancer in a population-based cohort. J Clin Oncol. 2003;21:1293-300.
- O'Connell JB, Maggard MA, Ko CY. Colon cancer survival rates with the new American joint committee on cancer sixth edition staging. J Natl Cancer Inst. 2004;96:1420-5.

- Farhoud S, Bromberg SH, Barreto E, Godoy AC. Clinical and macroscopic variables of colorectal carcinoma that influence the prognosis. Arq Gastroenterol. 2002;39(3):1-17.
- 8. Muto T, Bussey HJR, Morson BC. The evolution of cancer of the colon and rectum. Cancer. 1975;36:2251-70.
- Figiel LS, Figiel SJ, Wietersen FK. Roentgenologic observations of growth rates of colonic polyps and carcinoma. Acta Radiol. 1965;3:417-29.
- Welin S, Youker J, Spratt JS. The rates and patterns of growth of 375 tumors of the large intestine and rectum observed serially by double contrast enema study (Malmö Technique). Am J Roentgenol. 1963:90:673-87.
- Kim WH, Lee HW, Park SH. Microsatellite instability in young patients with colorectal cancer. Pathology international. 1998;48(8):586-94.
- 12. O'Connell JB, Maggard MA, Liu JH. Do young colon cancer patients have worse outcomes?. World J Surg. 2004; 28:558-62.
- Wang Y, Jatkoe T, Zhang Y, Mutch MG, Talantov D, Jiang, J, et al. Gene expression profiles and molecular markers to predict recurrence of Dukes' B colon cancer. J Clin Oncol. 2004;22:1538-9.