

## Small bowel adenocarcinoma associated with colorectal cancer: Report of two cases

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### Summary

- **Purpose:** To point out the difficult therapeutic management of small bowel adenocarcinoma and its rare association with colorectal cancer.
- **Material and methods:** We present two cases of patients having small bowel adenocarcinoma associated with colorectal cancer.
- **Results and conclusions:** The role of postoperative adjuvant chemotherapy is not well established. The association between the two mentioned tumors is rare, and the genetic pathogenesis is unknown.

#### Key words:

Small bowel adenocarcinoma. Colorectal cancer. Adjuvant chemotherapy.

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## Resumen

- **Propósito:** destacar el difícil manejo terapéutico de los tumores de intestino delgado y su poco frecuente asociación con el cáncer de colon.
- **Material y métodos:** se presenta el caso de dos pacientes con un tumor de intestino delgado que también desarrollaron un cáncer de colon.
- **Conclusiones:** la quimioterapia adyuvante en el cáncer de intestino delgado no está claramente establecida. La asociación de ambos tumores es poco frecuente y se desconocen los mecanismos genéticos.

**Palabras clave:** Adenocarcinoma intestinal. Cáncer de colon. Quimioterapia adyuvante.

## Introduction

Tumors of the small intestine are rare neoplasms. It has been estimated that small bowel tumors constitute less than 10% of all gastrointestinal tumors<sup>1</sup>. Adenocarcinomas constitute 25% of all small bowel tumors and nearly 80% of adenocarcinomas are located in the duodenum or jejunum.

Symptoms related primarily to the size and site of the tumor. The most common symptom is upper abdominal pain related to partial duodenal obstruction.

Histopathological confirmation can be obtained preoperatively in most patients by upper gastrointestinal endoscopy with total duodenoscopy.

Surgical resection is the first therapeutic approach and the role of postoperative adjuvant therapy has not been clearly defined

Here we report two cases of duodenal adenocarcinoma cancer associated with colorectal cancer.

## Case reports of two patients

### Case 1

A 49 years-old male was diagnosed in 1993 of having a colorectal adenocarcinoma stage III. He received a right hemicolectomy followed by adjuvant chemotherapy with 5 fluorouracil plus leucovorin. Seven years later in 2000 he came to our hospital with abdominal pain and a blood loss history. Computed tomography (CT) scan showed a duodenal mass, and confirmatory histology resulted in a duodenal adenocarcinoma. Surgical treatment with a pancreaticoduodenectomy was made followed by adjuvant chemotherapy with 5 fluorouracil plus Isovornin. Data on the long-term effect of chemotherapy show no relapse yet.

### Case 2

A 59 years-old woman presented to us, in 1997, with a 10 months history of weight loss and nausea. Endoscopy of the small intestine showed a duodenal mass and biopsy was positive for adenocarcinoma. She received a pancreaticoduodenectomy without adjuvant chemotherapy treatment. She continued revisions normally. In July 2001 she came to our institution with asthenia and a weight loss history. Computed tomography (CT) scan showed a lesion in the splenic angle of the colon. Colonoscopy confirmed a mass and biopsy was positive for adenocarcinoma. Surgical treatment was made with a hemicolectomy procedure. It confirmed a stage III colorectal cancer. Adjuvant chemotherapy treatment with 5 fluorouracil plus Isovornin was administrated.

## Discussion

Adenocarcinomas constitute 39% of all malignant small bowel tumors and about 45% of all adenocarcinomas of the small bowel arise within the duodenum<sup>2</sup>.

Small intestine neoplasm usually occur in association with genetic disease or chronic intestinal inflammation<sup>3</sup>, and the prognosis is generally considered to be poor. Delay in diagnosis is common because of the infrequency and unspecific symptoms.

The role of genetic pathway of small intestine adenocarcinoma is a matter of discussion. Although colorectal cancer and small bowel cancer have similar histopathological features, the well-known genetic changes correlated with the adenocarcinoma sequence described for colorectal cancer do not fit adenocarcinoma of the small bowel<sup>7,8</sup>.

Surgical resection is the first therapeutic approach

and the role of postoperative adjuvant therapy has not been clearly defined.

A complete macroscopic and microscopic tumor resection has to be the aim of any curative surgical approach<sup>4</sup>. And because 22% to 71% of patients have positive nodes at presentation a systemic regional lymphadenectomy should always be done<sup>2</sup>. Duodenal segmentectomy associated with intestinal derotation is a safe procedure with less morbidity and mortality than pancreaticoduodenectomy<sup>5</sup>.

In patients with unresectable disease palliative radiation therapy can be of some benefit in controlling chronic blood loss<sup>6</sup>.

Postoperative adjuvant chemotherapy is not defined. Since these tumors clinically appear to behave more like gastric and colorectal cancer than pancreatic cancer chemotherapy based 5-fluorouracil regimen is a therapeutic option.

In our cases surgical treatment with pancreaticoduodenectomy was done in both cases but postoperative adjuvant chemotherapy with 5 fluorouracil plus leucovorin was administered in only one case. The association with colorectal cancer show a possible genetic alteration not well known yet.

## References

1. Ellis H, et al. Tumours of the small intestine. *Semin Surg Oncol* 1987; 3:12.
2. Caniel G. Cancer of the Small Intestine. *Cancer: Principles and practice of Oncology, Fifth Edition*, edited by Vincent T. De Vita, Jr Samuel Hellman, Steven A. Rosenberg. Lippincott-Raven Publishers, Philadelphia 1997; 1133-4.
3. Bettini AC et al. Chemotherapy in small bowel adenocarcinoma associated with celiac disease: a report of three cases. *Tumori* 2003; 89:193-5.
4. Brucher BL et al. New aspects of prognostic factors in adenocarcinomas of the small bowel. *Hepatogastroenterology* 2001; 39:727-32.
5. Tocchi A et al. Adenocarcinoma of the third and fourth portions of the duodenum: results of surgical treatment. *Arch Surg* 2003; 1:80-5.
6. Brennan Mf et al. Duodenal cancer. *Asian J Surg* 1990; 13:204.
7. Wheeler JMD et al. An insight into the genetic pathway of adenocarcinoma of the small intestine. *Gut* 2002; 50:218-23.
8. Blaker H et al. Genetics of adenocarcinomas of the small intestine: frequent deletions at chromosome 18q and mutations of the SMAD 4 gene. *Oncogene* 2002, 21:158-64.

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