

MUCINOUS CARCINOMA OF THE JEJUNUM. REPORT OF A CLINICAL CASE

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SUMMARY

The authors report a case of mucinous carcinoma of the small bowel, stressing the rarity of this pathological feature.

RESUMO

Carcinoma mucoso do jejuno. A propósito de um caso clínico

A propósito de um caso clínico de carcinoma mucoso do jejuno os autores analisam as dificuldades inerentes à investigação clínica dos tumores do intestino delgado, discutem as razões da menor frequência destes tumores em relação a outros do tubo digestivo e salientam a raridade do carcinoma mucoso do intestino delgado.

INTRODUCTION

Malignant tumours of the small intestine are rare¹⁻¹³ representing no more than 1,5% of all gastrointestinal neoplasms;^{4, 13} among them the mucinous carcinoma is scarcely known in literature. The following case is thought to be a representative example of this nosological entity.

CASE REPORT

A 48-year-old white man was admitted to our Medical Department for investigation of anaemia in June 1980. He was asymptomatic till May 1979, when he began complaining of weakness, nausea, occasional vomiting and bloating. Six months later he had become weaker, with frequent vomiting, anorexia and the occurrence of dark stools. He had lost 10 kg. in weight. Diarrhoea or constipation had not occurred and there was no jaundice or urinary abnormalities.

He exhibited pallor and his blood pressure was 120/65 mmHg. There was no enlargement of the liver or the spleen and no palpable intra-abdominal masses or lymphadenopathy.

The proctoscopic examination was normal.

Blood tests revealed: Hb - 5,1 g/l; RBC - 2,440,000/mm³; G.V. - 74 μ³; MCHC - 27,8%; WBC - 5000/mm³; with N - 76%, E - 2%, B - 1%, L - 25%, M - 5%; Platelets - 330,000/mm³; ESR - 32 mm; Iron - 20 mg/dl, and Transferrin - 394/dl. Stool guaiacs were positive. Liver and renal functions were normal. Upper gastrointestinal X - Ray series revealed a long stenosis of the proximal jejunum with rigid and irregular limits but without dilation above the stenosis (Fig. 1).

With the diagnosis of jejunal neoplasm, a large median laparotomy was performed. During the operation, the exploration confirmed the presence of a stenosing tumor, 30 cm below the Treitz's angle, with multiple mucinous foci.

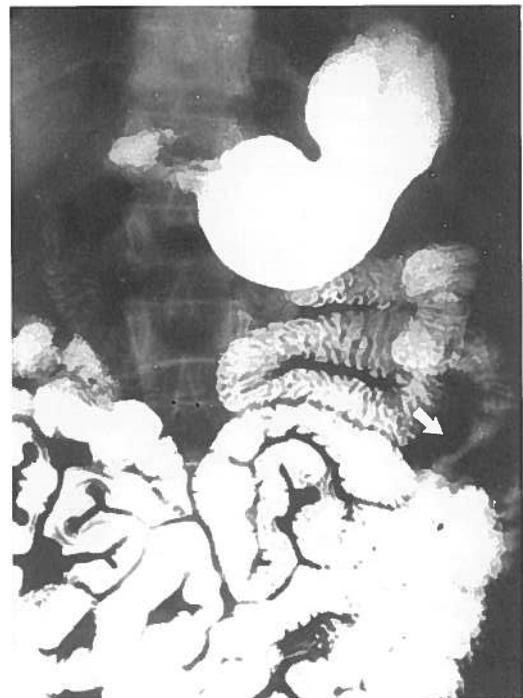


Figure 1: X - Ray upper gastrointestinal series. Stenosis of the proximal jejunum with rigid and irregular limits.

There was no macroscopic evidence of hepatic or lymphatic metastases.

A 40 cm intestinal resection was performed with its adjacent mesentery. A termino-terminal open anastomosis was done in one plane suture of extra-mucosal isolated points of Dexon 000. As usual, we did not use clamps and while the anastomosis was being constructed, the bowel loops were kept isolated with aqueous chlorohexidine solution soaked dressings. The mesenteric gap was sutured. After a careful and plentiful abdominal lavage with tepid isotonic solution, the abdominal wall was closed. Antibiotics were not administered. The post-operative period was uneventful and the patient was put on a liquid diet on the third day after recovering normal intestinal peristalsis, and on the fourth day a normal diet was initiated.

GROSS PATHOLOGY

The tumour was 3 cm. long and was implanted over the antimesenteric border of the jejunum. The tumour infiltrated the whole circumference of the lumen. The cut surface of the tumour was yellowish and showed a central area with abundant gelatinous material.

HISTOPATHOLOGY

The specimen consisted of a glandular epithelial tumour with several areas of well differentiated tumoral glands formed by cells with prominent and pleomorphic nuclei and presenting several mitotic figures (Fig. 2). However, the largest part of the tumour was occupied by lakes of mucus content, strongly stained by PAS method and incompletely bordered by flattened epithelial cells (Fig. 3). Debris of neoplastic cells were mixed with the mucus (Fig. 4). The tumour invaded all the layers of the jejunal wall. Small foci of necrosis, could be seen on the surface of the tumour. There was no lymph node invasion.

The features are typical of adenocarcinoma of the jejunum, predominantly of the mucinous type.

The patient was discharged on the eighth postoperative day and began chemotherapy, with F.A.M. schedule, as follows: 5 - fluoro-uracil: 600 mg/m² i.v.; adriamycin: 30 mg/m² i.v. every 4 weeks and, mitramycin: 10 mg/m² i.v. every 8 weeks.

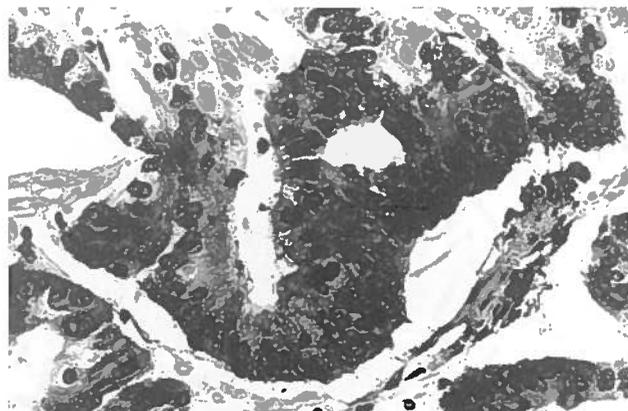


Figure 2: Mucinous Carcinoma. Areas constituted by well differentiated tumoral glands formed by cells with prominent hyperchromatic and pleomorphic nuclei. Several mitotic figures are rather apparent (hematoxylin and eosin, original magnification $\times 160$).

At the time of writing, 29 months after surgery, the patient is asymptomatic with normal blood parameters. He has regained his weight and leads a normal life.

DISCUSSION

Small bowel malignant tumours are rare,¹⁻¹³ and represent only 1,5 % of all gastrointestinal neoplasms.^{4, 13}

Carcinoma of the colon occurs 40 - 60 times more commonly.^{1, 3, 12} This rarity may be due to the fluidity of small bowel contents, its rapid transit time,¹¹ and the sterility induced by medium enzymatic factors.^{14, 15}

Local immunity factors may protect it against malignant transformation, as suggested by Calman,¹⁵ who showed that thymectomized and irradiated rats were equally susceptible to gastric and small bowel transplanted tumours, and that this susceptibility was lost after thymus graft.

The diagnosis of jejunal tumours tend to be delayed as symptoms are not specific and radiological demonstration is difficult due to overlapping of the intestinal loops.^{1, 5, 10, 11, 12} However, recent advances in radiology, such as double contrast and isolated loop analysis, enable better results.^{4, 16-18}

Adenocarcinoma is the most common type of cancer found in the small bowel. Various degrees of glandular differentiation are usually present and well differentiated glandular patterns almost always occur in these lesions.

Among them, mucinous carcinomas are exceedingly rare.

Bridge and Perzin¹² in their clinicopathologic study of 43 primary adenocarcinoma of the jejunum and ileum, and Adler et al.¹³ in their analysis of 338 cases of small intestinal adenocarcinoma, report no case of mucinous carcinoma.

Morson¹⁹ reports that mucus secretion has not been rare in his material, but he provides no data on its incidence, and Hollander et al¹⁰ reported a case of a *EOA cylindrique hypermucipare* but without pathological description.

In the Pathological Department of our Hospital (Medical School of Lisbon) there was only one other such case observed in the last 40 years.

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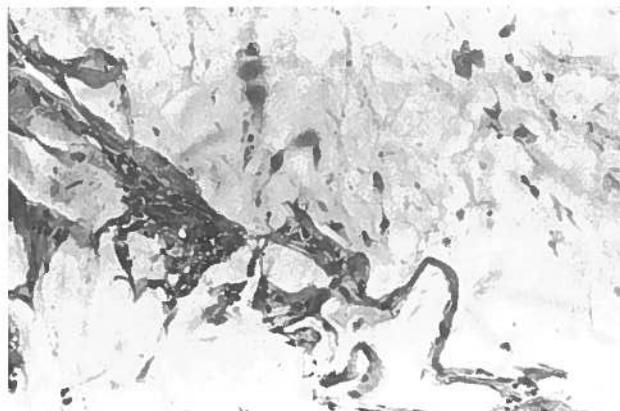


Figure 3: Mucinous Carcinoma. Lakes of mucus are incompletely bordered by flattened tumoral cells (Hematoxylin and eosin, original magnification $\times 100$).

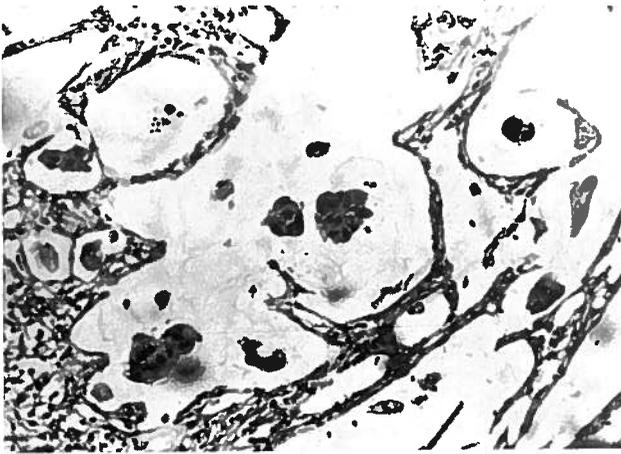


Figure 4: Mucinous Carcinoma. Debris of neoplastic cells mixed with the mucus (Hematoxylin and eosin, original magnification $\times 100$).

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