

# A clinical case of renal cell carcinoma with metastasis to the gastrointestinal tract

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### Abstract

The authors present a clinical case of a 64 year old female patient with stage IV renal cell carcinoma. In the final months, the tumor metastasized to the gastrointestinal tract, an unusual site for renal cell carcinoma metastases.

Key words: renal cell carcinoma, alpha-*INF*, alpha interferon, erythropoietin.

### Introduction

Renal cell carcinoma represents approximately 3% of all neoplasms worldwide.<sup>1</sup> More than 27,000 new cases are described each year in the United States.

Individuals with stage IV have an average survival time of eighteen months, and only 2% survive for five years.<sup>2</sup>

In the search for an ideal therapy, various chemotherapy regimens have been proposed; however, the chemo-resistance of this neoplasm appears to be much more marked than its immunosensitivity. Recent studies repeatedly combine chemotherapy agents with recognized cytotoxic activity, with modifiers of the biological response, with the aim of controlling the latent autoimmune behavior of this neoplasm and thereby obtain better response rates. An example is the use of phase-specific antimetabolites, such as

floxuridine, with marked improvement in response rates when combined with alpha-interferon.<sup>3-4</sup>

The role of immunotherapy assumes increasingly greater importance, and there is much still to be explored. In this regard, of the use of Interleukin II, the more long-lasting responses are highlighted.<sup>3</sup> However, in the majority of patients, the responses are of short duration, and relapses are frequent, making it essential to find new solutions.

### Clinical case

Female patient, 65 years of age, who came to the Emergency Department of the Hospital Distrital de Setúbal in January 95 with rectorrhagia complaints and symptoms of acute anemia. Two weeks previously, an episode of diabetic Ketoacidosis was recorded, which was treated with insulin for several days. In the documented absence of islets of Langerhans antibodies and insulin autoantibodies, the peptide C concentration was 0.16 ng/mL (0.8-4.0), suggesting type I diabetes. No diabetes mellitus was recorded in the personal and/or family history, and since August 1994, the patient was receiving treatment with alpha-interferon (3MU 3x/week) due to metastatic progression of the renal cell carcinoma.

The personal history included right nephrectomy for renal cell carcinoma five years previously, with stage IV with pulmonary involvement being documented in the following year. The first therapeutic approach, on that occasion, consisted of the administration of interleukin II (July 92 to January 93) which was followed by megestrol acetate (160 mg/day) due to progression of the lung disease. This therapy led to stabilization of the disease until June 1994. At that time, the lung progression returned, with lung effu-

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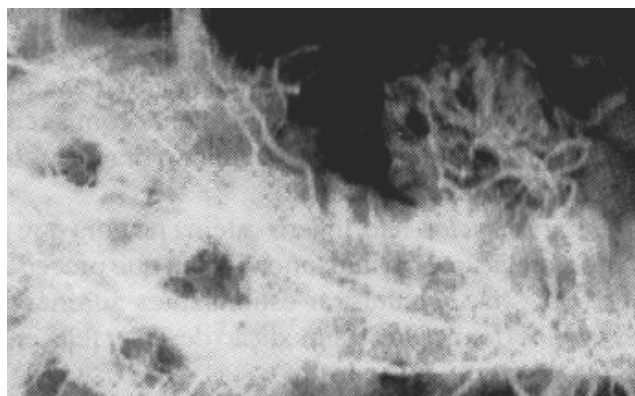
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Angiography of the lower mesenteric artery, identifying a hypervascularized in the sigmoid region.

FIG. 1

sion treated with talc pleurodesis in July 94, when immunotherapy with alpha-interferon was initiated (3MU 3x/day). The latter was suspended in February 1995, following a new lung metastazition.

Laboratory tests revealed normochromic normocytic anemia, with Hb of 8.6 gr/100 mL. Due to the lower gastrointestinal hemorrhage, the patient was submitted to rectosigmoidoscopy which showed the presence of live blood beyond the reach of the device. The colonoscopy showed a round lesion with hyperemia at 30 cm. The upper digestive endoscopy was not compatible with any signal of active hemorrhage.

On the following day, after admission to the Observation Room, the patient suffered a massive rectorrhagia, which resulted in a decrease in Hb, to 4.4 gr/dL. Despite this, no hemodynamic instability was observed, and it was possible to perform an angiograph of the mesenteric artery after transfusion of erythrocyte concentrate. This exam revealed the presence of a mass in the sigmoid colon, in the region of the lower mesenteric artery (Fig. 1). The patient was referred for Surgery; a stenosing nodular tumor of the small intestine was resected, with surgical security margin. In the sigmoid colon, a segment was resected that included the bloody lesion described. From a histopathological point of view, the presence of angiodysplasia of the sigmoid colon was observed. In the jejunal piece, the tumor was comprised of nests of clear cells, located in the mucosal and submucosal muscularis, findings suggestive of metastasis of carcinoma of renal cells (Fig. 2).

Postoperative staging of the disease showed a



Nests of clear cells in the muscularis mucosa and submucosa in the jejunal piece: Metastasis of renal cell carcinoma.

FIG. 2

worsening of the liver and lung metastization, as well as bone dissemination, with disappearance of the 3rd costal arch. Based on recent bibliographical data, we attempted therapy with erythropoietin for three months, from which the patient did not appear to derive any benefit.

### Discussion

This case, which is somewhat original, combines four diagnostic entities never before described in association. The first, type I diabetes, reported as a complication of the immunotherapy with alpha-interferon, rarely presents as an isolated manifestation of ketoacidosis;<sup>5</sup> some cases of specific autoimmunity, whether affecting the organs or not, were described as being secondary to the alpha-interferon therapy.<sup>6</sup> This mechanism could not have been responsible for the episode mentioned in our patient, although no circulating auto-antibodies were detected at the time of the tests.

The second aspect refers to the metastization in the intestine, which is very infrequent in renal cell carcinoma, having been described only one case involving the ampulla of Vater.<sup>7</sup>

The third aspect is the site of angiodysplasia. It occurs more frequently in the ascending colon, and is characterized by dilated and distorted veins with thin walls, separated by vascular endothelium. These lesions are frequently found in the blind pouch and ascending colon, where surprisingly, we did not observe them.<sup>8</sup> Finally, as mentioned above, only 2% of the patients survived for five years or more.

Although not very successful, we emphasize the option to administer erythropoietin, in a patient in whom practically all the best known therapeutic options had been exhausted, except for floxuridine, which is not yet available in Portugal. ■

## References

1. CA: Cancer Facts and Figures. American Cancer Society, 1994.
2. Stenzl A, Dekernion JB: Pathology, biology, and clinical staging of renal cell carcinoma. *Semin Oncol* 1989; 16:3.
3. Dimopoulos MA, Dexeus FH, Jones E. et al: Evidence for additive anti-tumor activity and toxicity for the combination of FUDR and interferon alpha 2 b in patients with metastatic renal cell carcinoma (RCC). *Pro Amer Assoc Cancer Kes* 1991; 32:186.
4. Soori G, Schuloff R, Stark J, et al. Phase II trial of continuous infusion Floxuridine and interferon alpha 2 b in advanced renal cancer. A NBSG study. *Proc Amer Soc Clin Oncol* 1993; 12:236.
5. Murakami M; Tokuji I, M. Mori. Diabetes Mellitus and Interferon-oc Therapy. *Ann Int Med* 1995; 123:318.
6. Mayet WJ, Hess G, Gerken G, Rossol S. Voth R, Manns M, et al. Treatment of chronic type B hepatitis with recombinant interferon induces autoantibodies not specific for autoimmune chronic hepatitis. *Hepatology*. 1989; 10:24-28.
7. *Gastrointest Endosc* 1990; 36(3): 304.
8. Santos JC et al. Angiodysplasia of the colon: Endoscopic diagnosis and treatment. *Br J Surg* 1988; 75:256.