Metastatic Renal Cell Carcinoma: Atypical presentation and poor outcome

M. Lazar¹, L. Maxim¹, C. Dochit², I. Scarneciu¹
¹ Department of Urology, Emergency Clinical County Hospital, Brasov, Romania
² Department of Pathology, Emergency Clinical County Hospital, Brasov, Romania

Abstract

67-year-old caucasian male presented for non-specific symptomatology, consisting in upper abdominal pain, intestinal transit disorder, weight loss, in which clinical examination revealed 2 palpable small masses, contained in the musculature of the anterior abdominal wall, bilaterally. Investigations showed a metastatic left RCC (mRCC), with unusual sites of cancer spreading.

Keywords: abdominal wall metastasis, metastasis, mRCC, RCC, skeletal muscle.

Introduction

Renal Cell Carcinoma accounts for 3% of adult cancers¹. Metastatic Renal Cell Carcinoma (mRCC) is a serious condition with poor prognosis and outcome, in spite of recent advances in medical therapy. 30-40% of patients with RCC present or will develop metastatic disease². Usual sites of dissemination are lung, lymph nodes, bone and brain, skeletal muscle metastasis being atypical with but few reported cases in literature³⁴.

Materials and Methods

A 67-year-old male, with no prior medical history whatsoever, presented to the Medical department for weight loss, abdominal pain, intestinal transit disorders. Preliminary tests revealed two painless palpable masses localized in the anterior abdominal wall and a mass growing near the left kidney, showed by the ultrasound (US). The patient was referred to our Urology Department. CT scan of thorax and abdomen was performed to confirm the presence of tumors and for staging purpose. CT showed a 40/60 mm mass adjacent to...
the inferior lower pole of the left kidney, which apparently did not arise from the renal parenchyma and two lesions contained in the anterior muscular wall, bilaterally. All lesions showed good contrast enhancement and seemed to be well delimited.

A debulking left nephrectomy was performed, via lumbar posterior aproach.

The bivalved resected specimen: apparently the tumor does not arise from the kidney parenchyma, growing in the Gerota fat tissue.

Giving the multiple localisation of tumors, a primary yet undetected cancer could not be ruled out, so a gastroenterologic consult was required. Inferior and superior digestiv tract endoscopy was performed, with no findings. An elevated CA 19-9 (250 U/ml) was found.

Results
We performed a resection of both abdominal wall masses (small well delimitated tumors) in diagnostic purpose. The pathology report describing metastatic lesions of a poorly differentiated RCC, grade Fuhrman IV.

In the mean while, the patient started to feel unwell, in the way of loosing sensitivity in both his legs.
The pathological report of kidney specimen (including IHC test) confirmed a Renal Cell Carcinoma, grade Fuhrman IV, with sarcomatoid focal component, with high propensity for muscular metastases.

The patient status continued to deteriorate postoperatively, showing signs of complete paralysis in both his lower limbs. A spine MRI and a CT of abdomen and thorax where performed, with findings of thoracic vertebrae metastasis and medullary compression and a mediastinal mass, all of which were not present at the one month earlier scan. In concert with the oncologists, it was decided that nothing more could be done in the way of curing the patient, palliative care being in order. Patient died in the matter of weeks following hospital discharge.

Discussions

30-40 % of RCC patients have metastatic disease at presentation, and 25 % will develop metastases after nephrectomy 5,6,8. However, skeletal muscle metastases are very uncommon. There have been few reported cases 2,3,4,5,6,7. They occur in late-stage disease, but as in the presented case, they can be the first finding of the underlying cancer. Reasons for the rare localization of metastases in skeletal muscles are multiple: irregular blood-flow due to muscular contraction, lactic acid activity, protease inhibitors and killer-lymphocytes activity 2,5,6.

In our case, although surgical resection of primary tumor and muscular metastases was done, the patient developed rapidly metastases in other sites (spinal bones and mediastinum), which were unresectable and considered incurable by means of postoperative adjuvant therapies. The clinical course was not influenced by the surgical resection. What we also consider peculiar in this patient was the raised CA 19-9, which is typically elevated in digestive cancers (pancreatic, colorectal, cholangiocarcinoma).

Conclusions

Confronted with such clinical evolution of a mRCC, one’s aim should be improvement of patients quality of life.

References

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