Mandibular Metastasis Revealing a Clear Cell Renal Cell Carcinoma

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Abstract

Introduction: Renal clear cell carcinoma (RCC) has different manifestations, including uncommon metastasis and paraneoplastic syndromes. It is the most frequent kidney neoplasm, and the third most frequent neoplasm to metastasize to the head and neck region.

Case presentation: A Forty-five years old woman presented at our ENT department with a mandibular swelling associated with hematuria. Mandibular mass biopsy showed a metastatic location of clear cell renal cell carcinoma. CT scans showed an extensive right renal tumor, which has infiltrated the liver with a peritoneal carcinosis. After multidisciplinary team discussion, the consensus reached was that the patient had a very advanced metastatic renal cell carcinoma.

Discussion: Renal carcinoma is the third most common neoplasm that metastasizes to the oral cavity. It accounts for nearly 3% of all adult malignancies and is the most lethal urologic cancer. The focus in metastatic renal cell carcinoma treatment has increased the last two decades, mainly due to the progress of targeted therapies. Metastasectomy remains debatable as an option which might lead to a complete and durable regression. Clear cell renal cell carcinoma has a very poor long term prognosis, such as most patients die in one year after detection of metastasis.

Keywords: Renal Cell Carcinoma; Mandibular Metastasis

Introduction

Renal cell carcinoma (RCC) is the most frequent kidney neoplasm, with a high tendency to metastasize. It is the third most frequent neoplasm to metastasize to the head and neck region. It is the urological tumor with the highest mortality rate despite the increase in initial diagnoses from the widespread use of ultrasonography and CT due to the high rate of metastasis at the time of diagnosis. RCC has different manifestations, including metastasis in uncommon sites and paraneoplastic syndromes.

Case Presentation

A Forty-five years old woman presented at our ENT department with a four months history of painful swelling of her right hemi-mandible. The swelling made mastication difficult and resulted in occasional oral bleeding.

The patient also had an eight months history of hematuria and four episodes of urinary tract infection during the same period, which resolved with antibiotics prescribed by her primary care physician. She also lost fifteen kilograms during the last four months. Clinical examination revealed a 5 x 4 cm indurated mass occupying most of the Para symphyseal region of the right mandible with contact bleeding and without infiltrating the buccal floor (Figures 1 & 2). There were no palpable cervical lymph nodes. An indurated, painful mass was also noticed in the right lumbar region with a diffuse tenderness of the abdominal wall. Abdominal ultrasound showed a peritoneal carcinosis due to solid – cystic mass, which has destroyed the right kidney and infiltrated the liver. Panoramic radiography showed an irregular opacity in the right Para symphyseal region, with
months in metastatic RCC patients with larger renal or lymph
is 59% by 12 months, 83% by 24 months, and 93% by 36
of the disease. The rate of postoperative metastatic recurrence
but surgical outcome is strongly dependent on stage and grade
primary tumors in patients with stage I through stage IV disease,
which explains the important role of palliative therapies in order
as most patients die in one year after detection of metastasis,
metastasis [4]. CCRCC has a very poor long term prognosis, such
positivity and a strong reaction for Vimentin exhibited by RCC
staining seems very helpful, showing a focal cytokeratin
making it a very challenging diagnosis. Immunohistochemical
can’t be determined on the basis of conventional histopathology,
encounter clear cells in many malignant neoplasms; their origin
and odontogenic carcinoma. Very frequently, pathologists
include the breast (33%), lung (18%), kidney (16%), thyroid
and salivary glands constitute a heterogeneous group of lesions. They may originate from
salivary gland, odontogenic tissue, or be metastatic. Metastatic
tumors that may present in the mandible with clear cell features
include the breast (33%), lung (18%), kidney (16%), thyroid
(6%), prostate (6%) and colon (6%) [2].

Histologically, there is a big resemblance between the CCRCC
and odontogenic carcinoma. Very frequently, pathologists
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positivity and a strong reaction for Vimentin exhibited by RCC
metastasis [4]. CCRCC has a very poor long term prognosis, such
as most patients die in one year after detection of metastasis,
which explains the important role of palliative therapies in order
to, improve comfort and reduce morbidity. Surgical resection
(total or partial nephrectomy) is the best treatment for localized
primary tumors in patients with stage I through stage IV disease,
but surgical outcome is strongly dependent on stage and grade
of the disease. The rate of postoperative metastatic recurrence
is 59% by 12 months, 83% by 24 months, and 93% by 36
months in metastatic RCC patients with larger renal or lymph
node- positive tumors [5]. Radical nephrectomy combined with
immunotherapy is proven to be the best option to significantly
increase survival in patients with metastatic RCC compared to
immunotherapy alone [6]. However, in patients with
unresectable tumors or metastatic RCC, it might have limited
clinical benefit. These patients, and those with recurrent disease
following therapy, are candidates for additional chemotherapy.

The focus in metastatic renal cell carcinoma treatment has
increased the last two decades, mainly due to the progress of
targeted therapies. Metastasectomy remains debatable as an
option which might lead to a complete and durable regression,
at least for a minority of patients. Even if there is not a high level
of evidence supporting its efficiency over time, this approach
has obtained widespread consensus mostly due to the fact that in
some cases it increases survival and clinical regression of the
disease, and because of the lack of more effective therapeutic
alternatives [7]. In our case, the patient presented a large RCC
metastasizing to the liver, lungs and mandible. Multidisciplinary
team discussion concluded that mandibular metastasis excision
was not beneficial, and only palliative care could be provided.

Conclusion

This case illustrates the importance of considering unusual
presentations of RCC which is the third most common neoplasm
to metastasize to the head and neck region. Metastatic RCC
should be included as a differential diagnosis for all oral and
neck lesions for patients with history of RCC. Even if CCRCC has
a very poor long term prognosis, palliative therapies are very
important in order to improve patient’s quality of life and reduce
morbidity.

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