In our case, the patients improved without surgery although the suspicion forced us to subject both patients to close monitoring because of the possibility of emergency surgery and making a differential diagnosis.

**CONCLUSION**

From the start of the diagnostic process there should be a high degree of suspicion for complications that often occur in the early stages of germ cell tumours such as tumour lysis or choriocarcinoma syndrome. The comprehensive approach in a referral centre can help prevent these complications and ensure early action if they occur.

**REFERENCES AND RECOMMENDED READINGS**

(*of special interest, **of outstanding interest)


**COLLECTING DUCT CARCINOMA OF THE KIDNEY. A CONTRIBUTION OF 4 NEW CASES**

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**Summary.** OBJECTIVE: Collecting duct carcinoma of the kidney is a rare and aggressive subtype of renal cell carcinoma with low cancer-specific survival. We reviewed our series of collecting duct tumours retrospectively.

METHODS/RESULTS: We performed a retrospective analysis of the collecting duct carcinomas of the kidney treated in our unit between January 2007 and December 2012. The variables analysed were: age, gender, reason for consultation, side affected, ASA score according to
Resumen.- OBJETIVO: El carcinoma renal de los conductos es una raro y agresivo subtipo histológico de carcinoma de células renales con baja supervivencia cáncer-específica. Revisamos de manera retrospectiva nuestra serie tumores del túbulo colector.

MÉTODOS/RESULTADOS: Analizamos de manera retrospectiva los carcinomas renales del túbulo colector tratados en nuestra unidad desde enero 2007 a diciembre 2012. Las variables analizadas han sido: edad, sexo, motivo de consulta, lado de afectación, puntuación ASA según riesgo anestésico, tratamiento quirúrgico, tamaño del tumor, grado de Fuhrman, invasión linfovascular, estadificación TNM (clasificación 2009), tratamiento adyuvante y tiempo de supervivencia. Se identificaron 4 carcinomas de conductos colectores. La edad media de los pacientes fue de 61 años. El sindrome constitucional y el dolor lumbar fueron los motivos de consulta mas frecuentes (75%), seguido de la hematuria. El tratamiento quirúrgico fue la nefrectomía radical laparoscópica en 100% de los casos, con linfadenectomía en 2 pacientes debido a enfermedad nodular detectada en estudios de imagen. Los 4 pacientes fueron inicialmente tratados con temsirolimus como terapia adyuvante sin obtener respuesta. Todos los pacientes finalmente fallecieron por su enfermedad con una supervivencia media de 9,5 meses (rango: 4-15 meses).

CONCLUSIONES: El carcinoma de células renales del conducto colector es un tumor del parénquima renal raro y agresivo. La tasa de supervivencia a largo plazo es baja, porque el único tratamiento potencialmente curativo parece ser la cirugía si se plantea en pacientes con tumor localizado.

Keywords: Kidney. Bellini duct carcinoma. Prognosis.

INTRODUCTION

Collecting duct carcinoma of the kidney is a rare variant of renal cell carcinoma and occurs in approximately 0.5-1.5% of all malignant epithelial renal tumours. This type of tumour is characterised by its poor prognosis due to early dissemination (1-6).

As collecting duct carcinoma of the kidney is rare, in this work we present 4 types of this kind of neoplasm.

CASE REPORT

All the renal tumours diagnosed in our hospital between January 2007 and December 2012 were revised retrospectively and the cases of collecting duct carcinoma of the kidney were identified. The variables analysed were: age, gender, reason for visiting, side affected, ASA score according to anaesthetic risk, surgical treatment, tumour size, Fuhrman grade, lymphovascular invasion, TNM staging (2009 classification), adjuvant treatment and survival time.

Four (4) cases of collecting duct carcinoma of the kidney were identified from a total of 320 renal tumours, which is 1.25%. Table 1 contains the aforementioned variables of the 4 cases. Mean patient age was 61 years (range: 50-69). In 3 cases (75%), the diseased side was the left kidney, and the right kidney in 1 case (25%). With regard to gender, there was an even distribution between males and females (50%). Constitutional syndrome and lower back pain were the most frequent reasons for visiting (75%), followed by haematuria. In all cases the radiological diagnosis was performed by means of CT scan (Figure 1).

The surgical treatment was laparoscopic radical nephrectomy in 100% of the cases, with lymphadenectomy in 2 patients due to node disease detected in imaging studies. The ASA score according to anaesthetic risk was 2 in 3 patients (75%) and a score of 1 in 1 (25%) patient.

Mean tumour size was 9.8 cm (range: 7-13).

The 2 patients that did not present disseminated disease at the initial diagnosis presented node and visceral metastatic disease during follow-up after surgery.
The 4 patients were treated initially with temsirolimus as adjuvant therapy with no response. Two patients were given second-line treatment with sunitinib without any response. The 4 patients died from their disease with a mean survival of 9.5 months (range: 4-15 months).

**DISCUSSION**

Collecting duct carcinoma of the kidney is a rare disease which classically has presented an ominous oncological prognosis (7).

There are three published series with a substantial number of cases1,2,3. There was a male predominance in all of them. On the other hand, this neoplasm is usually diagnosed as of the fifth decade of life.

Mean size on diagnosis varies according to the series, although it is between 6-8 cm. On diagnosis, most patients present locally advanced node and/or metastatic disease. All these data coincide with our own casuistry, although in terms of gender there was an even distribution between men and women, and mean tumour size is slightly greater in our series.

May et al performed a multicentre study assessing the prognostic value of the clinical and histopathological findings of collecting duct carcinoma of the kidney which have not yet been well described or well evaluated. Similarly, and after performing the multivariable regression model, they establish a risk of death scale for this type of cancer depending on a series of variables that predict specific mortality by cancer after the surgical treatment of the primary tumour. These variables are: ASA score according to anaesthetic risk (ASA score 3-4: 1 point), tumour size (size > 7 cm: 1 point), the presence of distance metastasis (2 points), Fuhrman grade (Fuhrman 3-4: 2 points) and the presence of...

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**Table I.**

<table>
<thead>
<tr>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
</tr>
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<td>Men</td>
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</tr>
<tr>
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<td>68</td>
<td>50</td>
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<td>Sdr constitutional + Back pain + Hematuria</td>
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<td>Side</td>
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<td>Left</td>
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</tr>
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</tr>
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</tr>
<tr>
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<td>Nephrectomy + laparoscopic lymphadenectomy</td>
<td>Nephrectomy + laparoscopic lymphadenectomy</td>
</tr>
</tbody>
</table>

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**Figure 1.** CT image of renal collecting duct carcinoma.
lymphovascular invasion (1 point). With this score they divide the patients into: low risk (0-2 points), intermediate (3 points) and high risk (4-7 points)\(^8\). According to this risk model, 3 of our patients belonged to the high-risk group and 1 to the intermediate-risk group, with the latter presenting the highest survival (15 months).

None of the large series assess the response to adjuvant treatments with chemotherapy, immunotherapy or antiangiogenic therapy. Isolated cases of partial response to antiangiogenic therapy have been reported in the literature\(^9,10\). In our series, the 4 patients were treated with antiangiogenics without presenting a response to the adjuvant treatment.

**CONCLUSION**

Collecting duct carcinoma of the kidney is a rare and aggressive renal parenchymal tumour. The long-term survival rate is low, because the only potentially curative treatment seems to be surgery if it is performed in patients with localised tumours.

**REFERENCES AND RECOMMENDED READINGS**

(*of special interest, **of outstanding interest)


