Synchronous transitional and clear cell renal carcinoma


ABSTRACT

Only a few cases of synchronous transitional cell and clear cell carcinoma of the kidney have been reported in the literature. This patient is a 41-year-old man who presented with left flank pain, occasional macroscopic hematuria and non-productive cough. Diagnosis of transitional cell tumor was confirmed by tomography, retrograde pyelography and biopsy and metastatic renal cell carcinoma in right deltoid muscle was identified by histopathological study. Synchronism is rare and preoperative diagnosis is difficult. Definitive diagnosis is made with pathological studies and often at the metastatic stage.

Key words: Transitional cell carcinoma, clear cell carcinoma, synchronous, metastatic

RESUMEN

Existen pocos casos de carcinoma de células transicionales (CCT) y de células claras sincrónico de riñón documentados en la literatura. Reportamos el caso de un paciente masculino de 41 años de edad, con dolor en flanco izquierdo, hematuria macroscópica ocasional y tos no productiva, a quien se le diagnosticó un tumor de células transicionales confirmado por tomografía, pielografía ascendente y biopsias, además de una tumoración en músculo deltoideas derecho con estudio histopatológico de carcinoma de células renales (CCR) metastásico. La sincronía es excepcional, de difícil diagnóstico preoperatorio; el estudio patológico aporta el diagnóstico definitivo y con frecuencia se diagnostican en etapas metastásicas.

Palabras clave: carcinoma de células renales, carcinoma de células transicionales, México.

OBJECTIVE

The purpose of this article is to present a case of synchronous transitional cell and clear cell carcinoma of the kidney together with a review of the literature.

INTRODUCTION

Synchronous transitional cell and clear cell carcinoma in the same kidney is rare and only 30 cases have been reported in the medical literature worldwide (1). Renal
cell carcinoma (RCC) represents from 1 to 3% of all tumors and transitional cell carcinoma (TCC) represents 7% of neoplasms in the adult. Of all kidney tumors, 80% correspond to RCC tumors and 7% to TCC tumors (1,2,3). These tumors usually appear between the sixth and seventh decades of life. They are predominant in men (2:1 ratio) and the left kidney is the most commonly affected (3:1 ratio). Hematuria is the principal symptom in 90% of cases. Other common symptoms are lumbar pain and sensation of a mass (3-9).

Twenty-five to thirty per cent of RCC patients present with metastasis upon diagnosis and have a mean survival rate of 6 to 12 months (1,2). The most common metastatic site is the lung (36%) and less common sites are the pancreas, skin, intestine, thyroid, paranasal sinuses, etc.

The majority of patients present with low grade transitional tumors though cases of high grade tumors have been described (1,3,4). There is no evidence of increased aggressiveness for synchronous tumors in relation to those that appear separately (6,9).

CLINICAL CASE
The patient is a 41-year-old man with a history of smoking and intense alcoholism and marijuana and cocaine consumption over the last 5 years. He underwent splenectomy and left hemi-collectomy secondary to gunshot wound 11 years prior. He sought medical attention one year ago for moderate, non-radiating, colicky, intermittent pain of 1-year progression at the left flank associated with occasional macroscopic hematuria. There was an increase in volume at the left flank of 5-month progression, unspecified weight loss in the last month and non-productive cough the last two months. Physical examination revealed a soft abdomen that could be pressed, no signs of peritoneal irritation and a well-defined fixed 20 x 15 cm mass in the left hemi-abdomen that was painful when palpated. There was also a mobile non-painful 3 x 3 cm lymph node on the right deltoid area surface.

Laboratory tests reported Hb: 11.5 g/dl, Hct: 31.7%, Leukocytes: 16,700, glucose: 95mg/dl, Cr: 1.1mg/dl, UA: abundant erythrocytes, Chest X-ray: multiple bilateral pulmonary nodules (Image 1), Abdominal tomography: increase in volume of the left kidney (13.5 x 9.3 cm) with mixed interior densities reinforced by contrast material and thickening of the renal pelvis (Images 2 and 3).

Left retrograde pyelography displayed multiple impregnation defects in ureter and pelvis (Image 4). Ureteroscopy and biopsy revealed multiple vegetating lesions in ureter and renal pelvis and histopathological study reported low grade papillary transitional cell urothelial carcinoma. Right deltoid mass presented with metastatic clear cell renal carcinoma.

Surgical management was not indicated due to massive disease extension and the patient was given palliative treatment.

DISCUSSION
In 1921 Graves described the first case of synchronous tumor involving RCC and TCC in the same kidney. In 2001 Merenciano reported 44 cases including cases involving the renal pelvis, ureter and bladder (1,2). The M.D. Anderson Hospital series included 700 patients presenting with RCC over a period of 30 years. Only one patient presented with synchronous tumor in the same kidney, resulting in a 0.14% incidence (7). Smoking
was the only common risk factor (1,2,8). Preoperative diagnosis of synchronism is difficult (4). Computed axial tomography (CAT) tends to identify kidney tumor without defining synchronism. Pathology studies provide definitive diagnosis. Low grade transitional tumors have been more frequently reported but not to the exclusion of high grade tumors. Synchronous tumors do not appear to be more aggressive than independent ones and 24% of cases present with metastasis upon diagnosis (1,2).

**CONCLUSIONS**

Synchronous transitional cell and renal cell carcinoma is rare, difficult to diagnose preoperatively, is not more aggressive to the patient than independent tumor and is frequently diagnosed at the metastatic stage.

**BIBLIOGRAPHY**