

An uncommon manifestation of renal cell carcinoma: contralateral spermatic cord metastasis

Hassan Ahmadnia, Mahmood Molaei, Ehsan Mansourian

Ghaem Medical Center Mashhad Medical University, Iran

KEY WORDS

metastasis ► renal cell carcinoma ► spermatic cord

ABSTRACT

A sixty year old patient with the history of left renal cell carcinoma referred with the complaint of a mass in the right hemiscrotum; seven years after radical nephrectomy. Orchidectomy was done and the pathology report was metastatic RCC in the contralateral spermatic cord. RCC spread through the retrograde flow to spermatic veins from the renal vein, so a careful examination of the external genitalia should be performed to exclude occult metastases in the patients with RCC, during follow up.

INTRODUCTION

Renal clear cell carcinoma has different manifestations including uncommon metastasis and paraneoplastic syndromes [1]. It is possible that RCC appears in any organ. Nevertheless RCC metastasis to the spermatic cord is very rare.

About one third of the patients with RCC have hematogenous metastasis at the time of diagnosis and in 25% metastasis occurs after radical nephrectomy. The most frequent sites of metastasis include: lung (50%), bone (30%), liver (30%), brain and thyroids (25%) [2].

In this article, there is a case report of rare metastasis to contralateral spermatic cord.

CASE REPORT

The patient is a 60 year old man, with the main symptom of haematuria from which he suffered 40 months ago. After necessary evaluation

a mass was found in his left kidney. After radical nephrectomy had been preformed, the diagnosis appeared to be RCC.

After seven years the patient referred with a mass in the right hemiscrotum which he discovered himself. Ultrasound report was mild hydrocele with a hypoechogenic mass with the dimensions of 22 x 28 mm with dilated venous vessels. Orchidectomy was performed and the pathology report was metastatic RCC in the contralateral spermatic cord (Fig. 1, 2, 3).

DISCUSSION

Because of different manifestations of RCC it is named "internist's tumor". In many cases it is diagnosed during image studies performed for other causes.

The progress of disease is not predictable. In 25-30% of cases there are metastases at the time of diagnosis or a short time afterwards. In 20-50% of patients there is a recurrence after radical nephrectomy [3]. Commonly metastases are found in lungs, bones, liver and thyroid. Uncommon metastasis are characteristic for RCC and may occur in any organ [2].

The mean time of recurrence after nephrectomy is 15 months and in 85% of cases it is 3 years [4].

The scrotal metastasis is rare in RCC and usually occurs in the late stages after diagnosis of RCC [5]. Although renal vein is frequently involved in RCC and involvement of inferior vena cava has been documented, rare cases of RCC metastasis through the spermatic vein of the ipsilateral side (mainly left side), have also been reported.

A metastatic disease should always be considered in a patient with a scrotal mass and with a history of renal tumor. The diagnosis and treatment in such patients are inguinal orchidectomy [6].

A total of 20 cases of metastasis into the spermatic cord from RCC have been reported in literature, but in our survey this case is the first report of contralateral spermatic cord metastasis. The spread possibly occurs either directly or via lymphatics, spermatic vein and Batsons plexus

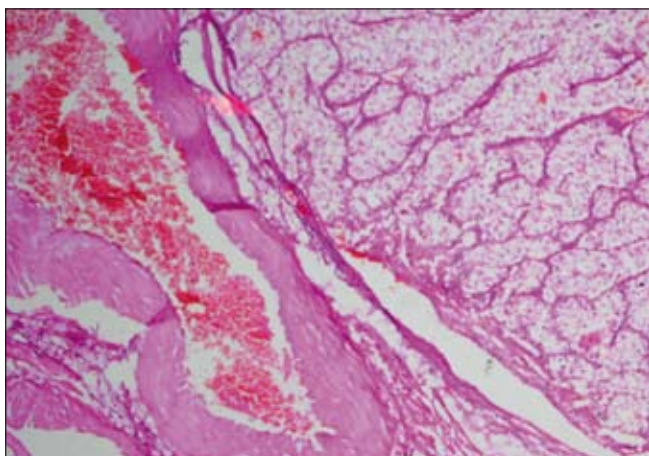


Fig. 1. Tumor (clear cell) invasion in the wall of large artery in spermatic cord (100x).

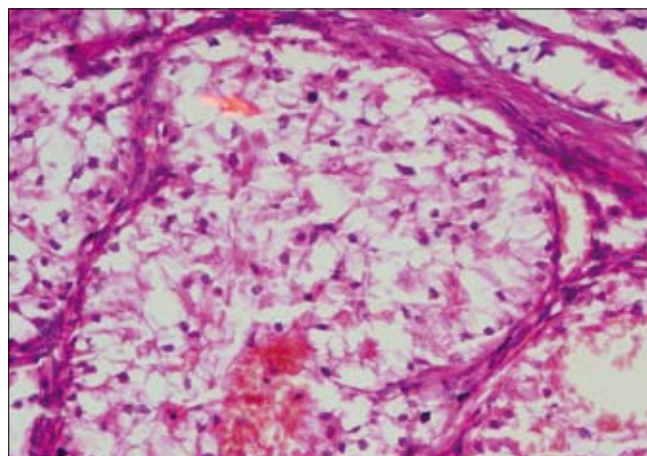


Fig. 2. Tumor tissue (clear cell) with lobulated pattern of large cells with sharp cytoplasmic border, round central nuclei; with vascular stroma (400x).

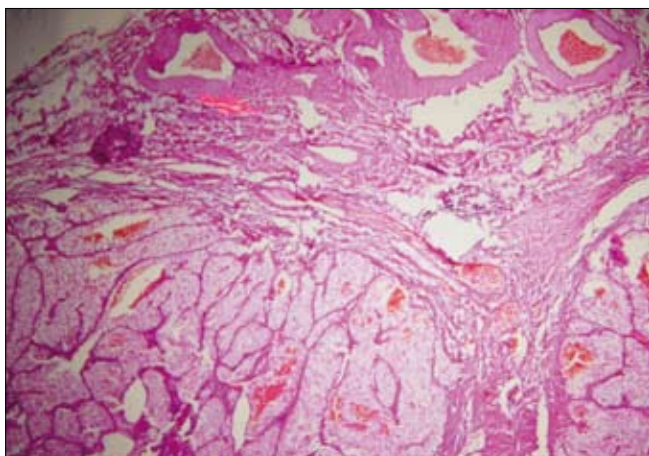


Fig. 3. Two lobes of clear cell tumor in vascular connective tissue of the spermatic cord (100x).

of veins [7]. RCC spread through retrograde flow to spermatic veins from the renal vein [8].

In patients with RCC, during follow up, careful examination of the external genitalia should be performed to exclude occult metastases.

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Correspondence

Hassan Ahmadnia
Department of Urology
Ghaem Hospital
Mashhad University of Medical Science
Mashhad, Iran
phone: +091 511 057 78
ahmadnia2001@yahoo.com