SPONTANEOUS RUPTURE OF RENAL LEIOMYOSARCOMA IN A 45-YEAR-OLD WOMAN.

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Summary.- OBJECTIVES: Leiomyosarcoma is a rare histological subtype of renal sarcomas, accounting for approximately 50-60% of the reported cases. Spontaneous rupture of renal tumor is an uncommon event and the most frequent cause is angiomyolipoma. We report a case of spontaneous rupture of leiomyosarcoma in a 45-year-old woman, presenting with severe left flank pain and perirenal hemorrhage.

METHODS: A 45-year-old caucasian white woman was transferred to our department from emergency room of a different hospital for acute left flank pain interpreted as a renal colic not responsive to medical therapy.

RESULTS: Laparotomy was urgently performed. There was large retroperitoneal hematoma extending from left kidney to pelvic space. At the upper pole of the kidney a bleeding tumor was found. Radical nephrectomy was performed. The histological diagnosis was of low-grade leiomyosarcoma from renal angiomyolipoma.

CONCLUSIONS: We attract attention both on kidney cancer (at our knowledge only 3 cases described in literature) and on the need of imaging in the clinical approach of renal colic. We strongly believe that the patients presenting at emergency for renal colic must be scanned by ultrasounds or CT.

Keywords: Leiomyosarcoma, Renal tumor, Spontaneous rupture

Resumen.- OBJETIVO S: El leiomiosarcoma es un tipo de sarcomas renal poco frecuente, que supone aproximadamente el 50-60% de los casos comunicados. La rotura espontánea de un tumor renal es un acontecimiento raro, siendo la causa más frecuente el angiomiolipoma. Presentamos un caso de rotura espontánea...
INTRODUCTION

Leiomyosarcoma is a rare histological subtype of renal sarcomas, accounting for approximately 50-60% of the reported cases. Spontaneous rupture of renal tumor is an uncommon event and the most frequent cause is angiomyolipoma. In literature only 3 cases of spontaneous rupture of leiomyosarcoma (1-3) are described, two cases have been reported in Japan and one case in Karachi. We report a case of spontaneous rupture of leiomyosarcoma in a 45-year-old woman, presenting with severe left flank pain and perirenal hemorrhage.

CASE REPORT

A 45-year-old caucasian white woman was transferred to our department from the emergency room of a different Hospital with acute left flank pain interpreted as a renal colic not responsive to medical therapy. As anamnestic note there was only a tiroidectomy for struma, the patient had been free of urological symptoms until hospitalization.

On clinical examination patient was haemodynamically stable but with rapid decrease in hemoglobin, pale, without haematuria and with persistent left flank and hypochondrium pain as in acute abdomen. Abdominal CT scan (Figure1) showed a retroperitoneal haematoma around the left kidney, and a large heterogeneous mass.

Laparotomy was urgently performed. A large retroperitoneal hematoma extending from left kidney to pelvic space was found. At upper pole of the kidney there was a big bleeding spherical mass. Radical nephrectomy was performed.

On macroscopic anatomy a nonencapsulated tumor involving the upper pole of the left kidney was identified. The cut surface of the lesion was red-brown and soft, showing prominent areas of hemorrhage. The surgical specimen was formalin-fixed and paraffin-embedded and slides were coloured by routine Haematoxlyn-Eosin stain. Formalin-fixed and paraffin-embedded tissue was utilized also for immunohisto-
chemical analysis. Immunoperoxidase staining was performed according to avidin-biotin-peroxidase technique. The sections were incubated with anti-Vimentin (Dako 1:200), anti muscle-specific-actin (Neomarkers 1:1000), anti desmin (Histoline prediluite), anti HMB45(Dako 1:50) antisera and with antibodies to cytokeratin 20 (Neomarkers 1:50) and 7 (Neomarkers 1:100).

On light microscopy the tumor showed an intimate admixture of smooth muscle, blood vessels and small amount of adipose tissue. The smooth muscle areas merged with a proliferation of large spindle atypical cells with hypercromatic nuclei (Figure 2a) and high mitotic ratio (8 mitoses / 10 HPF).

The fatty component was composed by mature adipose tissue and there was a characteristic complex network of thin-walled vessels with large areas of hemorrhage. Necrosis was absent.

Immunoperoxidase stains showed that the pleomorphic spindle cells were positive for Vimentin, muscle specific actin (Figure 2b), desmin, HMB45, and negative for cytokeratin 20, cytokeratin 7. These findings are consistent with smooth muscle lineage and suggest a sarcomatous transformation of angiomyolipoma. The diagnosis was low-grade leiomyosarcoma from renal angiomyolipoma.

Post operative course was normal and patient was discharged from hospital on 10th post operative day. After one year follow-up patient has not local or systemic recurrence.

DISCUSSION

Sarcoma is a rare (1-3%) malignant kidney cancer presenting the subtype leiomyosarcoma in 50-60%.

In this case histological examination suggests a sarcomatous transformation from angiomyolipoma.

We point out both the rare kidney cancer (at our knowledge only 3 cases described in literature) and the need of imaging in the clinical approach of renal colic. We strongly believe that patients presenting at emergency for renal colic must be scanned by ultrasounds or TC.

BIBLIOGRAFÍA y LECTURAS RECOMENDADAS (**lectura de interés y ***lectura fundamental)

