

LEIOMYOSARCOMA OF THE RENAL VEIN

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ABSTRACT

Leiomyosarcoma of the renal vein is a rare tumor of complex diagnosis. We presented a case of renal vein leiomyosarcoma detected in a routine study. The primary treatment was complete surgical removal of the mass. In cases where surgical removal is not possible the prognosis is poor, with high rates of local recurrence and distant spread.

Key words: kidney; renal veins; muscle neoplasms; leiomyosarcoma
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INTRODUCTION

There are approximately 30 cases of leiomyosarcoma of the renal vein reported in literature. They affect primarily the inferior vena cava in more than 50% of the cases (1). Pre-operative diagnosis is difficult due to its low incidence, and since it presents a slow growing rhythm and nonspecific symptoms. We present a case of primary leiomyosarcoma of the left renal vein.

CASE REPORT

Patient with 47 years, male, white came to the urologist to routine exam. In physical examination identified a mass in left flank, painless and non mobile, by palpation. An abdominal ultrasound showed a tumor without not related to renal parenchyma and excretory route but in close contact with the renal vein (Figure-1).

During the surgery we found that the tumor had its origins in the renal vein and the patient was submitted to radical left nephrectomy (Figure-2). The histological study disclosed renal vein leiomyosarcoma.

DISCUSSION

Leiomyosarcoma is an uncommon soft tissue tumor, generally occurring in myometrium, respiratory tract and retroperitoneal organs. It seldom originates in vascular structures, and the inferior vena cava responds for more than 50% of the cases (2). Leiomyosarcoma of the inferior vena cava was first described in 1871 (1), and its diagnosis and treatment is still challenging. These tumors attain women over 30 years in 85% of the cases (2). More frequently they are left-sided (64%). Symptoms are nonspecific, such as mild lumbar and abdominal pain, and wasting. Hematuria and palpable mass are rare (2).

Until the 80's, approximately 50% of the cases were autopsy findings. Presently they are incidentally found in routine studies (2). Clinical context and ultrasound and computed tomography studies are nonspecific and do not allow an adequate differential diagnosis with other retroperitoneal solid tumors (3).

Leiomyosarcoma spread occurs primarily by local extension. Through hematogenous spread it affects liver (25%), lungs (63%), bones (19%) and, less frequently, lymph nodes (3). At diagnosis, approxi-

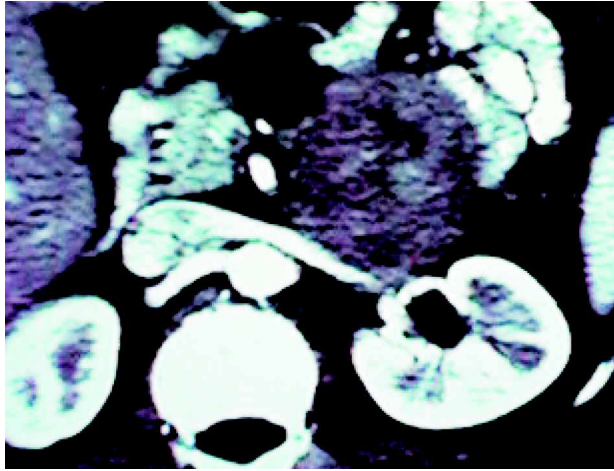


Figure 1 – Abdominal computed tomography showing a bulky mass near the left renal hilum, invading the renal vein.

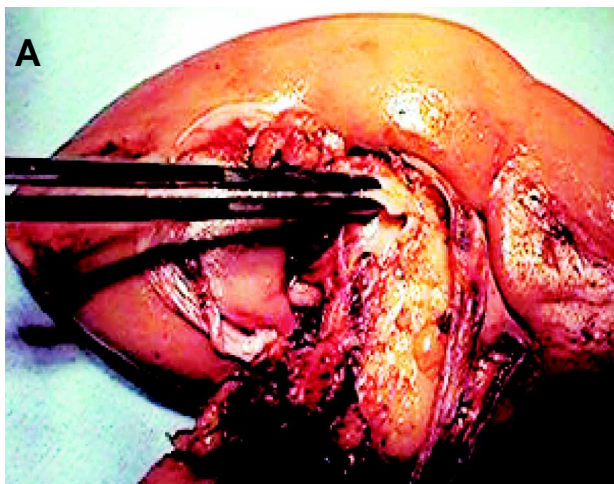


Figure 2 – Surgical specimen. A) - Place of tumor origin near the left renal vein wall. B) - Macroscopic view of the solid mass.

mately half of the cases present metastatic disease or are nonresectable due to local invasion, presenting therefore a poor prognosis (3).

The best treatment for leiomyosarcoma is surgery with total tumor removal. This is the option that offers the best chances of local control and 5 years survival. Studies performed at Memorial Sloan Kettering, New York, showed that the major prognostic factor is total surgical resection. When it is complete, 5 years survival free of disease is of approximately 60%, vs. just 30 to 35% when it is partial. Once total removal is performed, major prognostic factor becomes histological grade, with 5 years free of disease survival of 90 to 95% for low grade tumors, and of 30 to 35% for high grade tumors.

Radiotherapy and adjuvant chemotherapy have limited effects due to toxicity on contiguous structures. Adjuvant therapy is generally used to high grade tumors, with partial resection (3).

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