Renal angiomylipoma with renal vein invasion

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Summary

Renal angiomylipoma is a uncommon benign tumor, considered an hamartoma. The lesion, usually benign, can be single or multiple and well-circumscribed. In literature only few cases of infiltrating angiomylipomas have been described. The aim of the paper is to describe a paradigmatic case of a giant kidney angiomylipoma, not associated with tuberous sclerosis, invading the pelvis and the renal vein. The lesion have been discovered incidentally during abdominal ultrasound for other pathology. Owing to the extent of the lesion and the appreciable risk of bleeding, we opted for surgical treatment.

Key words: Angiomylipoma; Kidney; Renal vein invasion; Radical nephrectomy.

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INTRODUCTION

Angiomylipoma is a nodule composed of variable amounts of mature adipose tissue, smooth muscle, and thick-walled blood vessels derived from perivascular epithelioid cells usually arising in the renal cortex. Its prevalence in the general population has been reported to be 0.3-3% overall in the female patients (1). In the multifocal form, it is usually associated to tuberous sclerosis (2). The average lesion size is from 2 mm to 20 cm maximum diameter. In most cases the angiomylipoma is asymptomatic and is diagnosed incidentally with Ultrasound, CT and MRI done for other reasons. Renal angiomylipoma at times can be aggressive and may show extension into renal vein and inferior vena cava (3). We describe a paradigmatic case of a giant kidney angiomylipoma, not associated with tuberous sclerosis, invading the pelvis and the renal vein.

CASE REPORT

The lesion have been incidentally discovered in a 78 years old woman by ultrasound scan done for other reasons. Total body CT scan and MRI have been done showing large node (18 mm) in the mediastinus, a 8 cm large lesion of the upper pole of the left kidney with prevalence of fat tissue and solid areas invading the renal vein for 4 cm, some large nodes (1 cm) in the retroperitoneum and gallbladder stones (Figure 1, 2). Past medical history included breast reduction; hyatal hernia surgery; hypothyroidism; pulmonary infection during the last months. Blood tests: Hb 15 g/dl-1 leukocyte 8 x 10^3  μl-1, urea 44 mg/dl-1, creatinine 0.9 mg/dl-1. The extension of the lesion, the risk of bleeding and the risk of renal carcinoma were carefully evaluated in order to decide the surgical treatment. The patient underwent laparoscopic left adrenal sparing radical nephrectomy. Definitive histology: renal angiomylipoma invading the renal vein with negative ilar nodes and normal left renal parenchima (Figure 3, 4). No post-operative complications. The patient was discharged in the fifth postoperative day. At the first control, one month after the operation, the patient was asymptomatic, the abdominal ultrasound scan was normal and the blood tests were normal.
plex cases (7). Lesion larger than 4 cm may bleed, may cause flank pain and may be palpable (8). When the lesion is growing, when it is symptomatic or when the differential diagnosis is doubtful, surgical treatment is necessary: enucleoresection, embolization or radical nephrectomy (9).

CONCLUSIONS
In most cases angiomyolipoma is asymptomatic and it is an incidental finding during Ultrasound scan or CT scan done for other reasons. It may involve regional nodes, renal vein or inferior vena cava, that can suggest an aggressive evolution (10); anyway, these lesions are not considered metastasis. In case of benign lesion the treatment has to be conservative. Radical surgery is requested in those rare cases where the angiomyolipoma is really large or involves the renal vein.

REFERENCES

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