A case of giant, isolated renal angiomyolipoma in an elderly female

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Introduction

Renal angiomyolipoma is an uncommon, benign neoplasm. Although it is seen in association with tuberous sclerosis, the majority (80%) occur in isolation. Isolated tumours predominantly occur in middle aged females, and mostly arise from the right kidney [1]. Larger tumours are known to be associated with a significant risk of rupture (traumatic or spontaneous) resulting in haemorrhagic complications [2]. We report a case of a giant, uncomplicated, isolated angiomyolipoma arising from the left kidney in an elderly female.

Case report

A 76-year old female presented with a history of progressive abdominal distention of 4 months duration without any other symptoms. She had no history of tuberous sclerosis or other medical illness. Examination showed generalised abdominal distention with a large, ballotable mass in the left flank. Ultrasonography and CT suggested a large left renal angiomyolipoma with remnants of left kidney (Figure1). She underwent a left radical nephrectomy and a tumour weighing 4.5 kg was excised. Histology confirmed the diagnosis of renal angiomyolipoma.

Discussion

Angiomyolipomas are composed of 3 tissue elements: mature adipose tissue, smooth muscle cells, and thick-walled blood vessels. These can develop in 2 forms. The isolated form which is the commonest (80%), occurs sporadically, and the remaining 20% are associated with tuberous sclerosis. The isolated type is often solitary; presents at a mean age of 43 years; is commoner in women and 80% arise from the right kidney [2]. In this case, the patient was a 76-year old female where the tumour involved the left kidney.

The size can vary from a few millimeters to being larger than 20 cm. The majority (60%) are asymptomatic. However, about 82% to 94% of angiomyolipomas equal to or greater than 4 cm in diameter are symptomatic, and the main presenting symptoms are related to intratumoural or retroperitoneal haemorrhage [3]. Typical angiomyolipomas can be diagnosed without histological confirmation by a combination of ultrasound and CT in up to 95% of cases. On ultrasonography they cannot be confidently differentiated from renal cell carcinoma. However, the characteristic detection of fat within the lesion by CT is diagnostic [4].

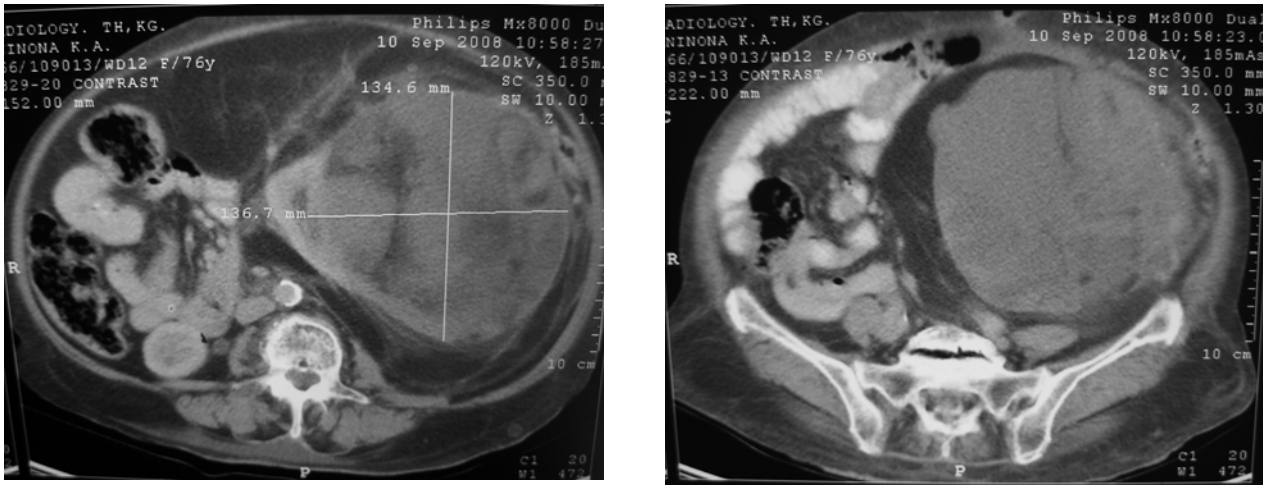

Figure 1. **CT images showing the angiomyolipoma.**

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The management depends on factors such as tumour size, risk of haemorrhage, and whether the lesion is sporadic or associated with tuberous sclerosis. Symptomatic, large tumours require surgical intervention. Smaller (<4 cm), asymptomatic tumours can be managed conservatively with close monitoring using newer imaging techniques (CT, MRI). Radical nephrectomy should be the procedure of choice if there is any suspicion of malignancy [5].

References

1. Rakowski SK, Winterkorn EB, Paul E, Steele DJ, Halpern EF, Thiele EA. Renal manifestations of tuberous sclerosis complex: incidence, prognosis, and predictive factors. *Kidney International* 2006; **70**: 1777-82.
2. Nelson CP, Sanda MG. Contemporary diagnosis and management of renal angiomyolipoma. *Journal of Urology* 2002; **168**: 1315-25.
3. Limaiem F, Mekni A, Chelly I. Renal epithelioid angiomyolipoma: a case report and literature review. *Pathologica* 2008; **100**: 31-5.
4. Prasad SR, Surabhi VR, Menias CO, Raut AA, Chintapalli KN. Benign renal neoplasms in adults: cross-sectional imaging findings. *American Journal of Roentgenology* 2008; **190**:158-64.
5. Wong K, Waters CM, Hershman MJ, Kaisary AV, Horner J. Angiomyolipoma of the kidney: a clinical enigma in diagnosis and management. *Annals of Royal College of Surgery of England* 1992; **74**: 144-8.