

A Giant Capsular Leiomyoma of the Kidney Complicating Pregnancy: A Case Report

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ABSTRACT

Capsular leiomyoma of the kidney is a rare benign tumor. Usually they are very small tumors and do not produce symptoms. We report a case of a huge renal capsular leiomyoma in a pregnant woman, which led to premature delivery of the baby.

INTRODUCTION

Leiomyoma of the kidney is a rare benign tumor, usually asymptomatic, and mistaken as malignant. Diagnosis is made only on histopathology. They are usually less than 1 cm in diameter, and large ones are rare. Less than 100 cases of renal leiomyomas are reported in the literature [1], but to the best of our knowledge, none have been reported with a pregnancy.

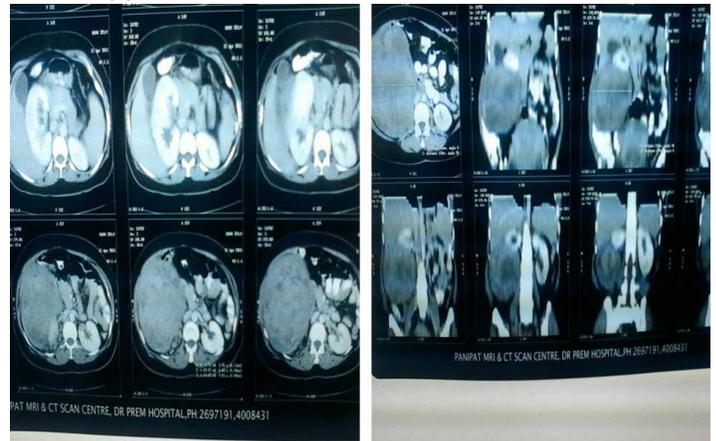
CASE REPORT

A 30-year-old primigravida female was referred to our department 3 days after delivering a premature male baby, with a globular abdominal mass occupying the right hemi abdomen, crossing the midline. She was referred with a computed tomography- (CT) documented huge, lower pole renal tumor, possibly benign (Figure 1). She did not reveal any previous history of an abdominal mass. An intraoperative frozen section revealed features of leiomyoma kidney and, therefore, lower polar partial nephrectomy was performed. She was discharged on the seventh postoperative day in a stable condition. Histopathology showed a leiomyoma arising from the renal capsule (Figure 2 and Figure 3).

DISCUSSION

Leiomyomas usually present between the second and fifth

Figure 1. Computed tomography showing a giant solid tumor arising from right kidney, lower pole, and crossing to the opposite hemi abdomen.



decade of life, with a female preponderance (66%) [2]. These tumors are commonly seen in relation to the lower pole of the kidney (74%), with equal incidence in both kidneys. They can develop from the renal areas that normally contain smooth muscles, such as the renal capsule (37%), the renal pelvis (17%), renal cortical vasculature (10%), and indeterminate areas

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Figure 2. Specimen of the leiomyoma after lower polar partial nephrectomy. It is around 17 centimeters in its length.

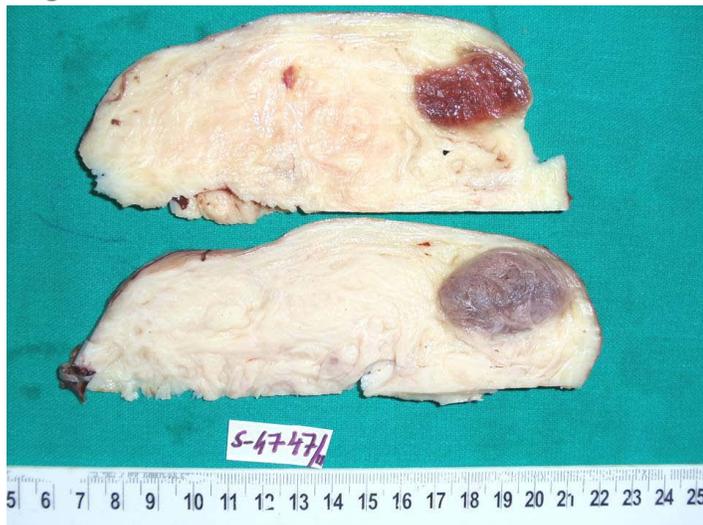
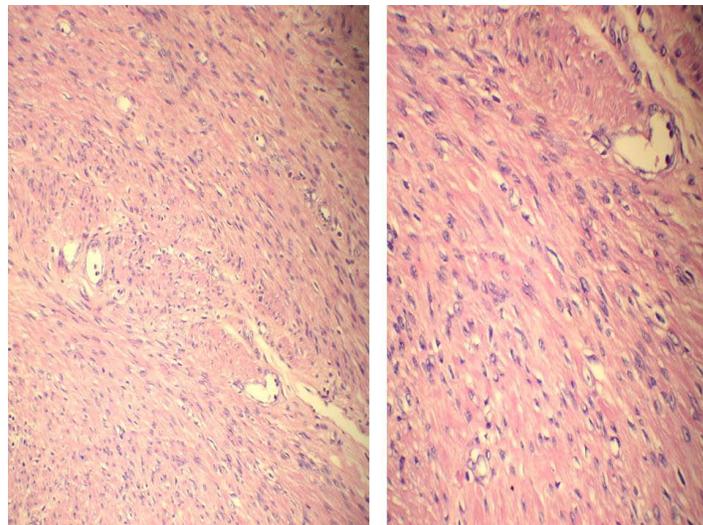


Figure 3. Histopathology of the specimen; the right side shows bundles of spindle cells arranged in fascicles (H&E, 20 X). The left side shows compressed renal parenchyma in the periphery, with few glomeruli and atrophied tubules (H&E, 10 X).



[2]. Their average size is less than 5 mm [3], they are usually asymptomatic, and when symptomatic they present as a large palpable mass (57%), with pain (53%), and with microscopic hematuria (20%). Diagnosis cannot be established by imaging alone. Small renal capsular leiomyomas typically appear as well circumscribed masses with homogenous enhancement on CT imaging and an occasional cleavage plane between the renal cortex and the tumor [4]. Irregular calcification may be seen in up to 20% of cases [4,5]. In large leiomyomas, the loss of fat planes makes it difficult to differentiate it from leiomyosarcomas, large exophytic renal carcinomas, and angiomyolipomas. Total nephrectomy is indicated for large leiomyomas to avoid the risk of necrosis, infection, and malignant degeneration; however, the exact risk is not known [5].

CONCLUSION

Giant leiomyomas of the kidney are rare tumors, which can grow rapidly in pregnancy, leading to premature termination of the pregnancy along with diagnostic difficulties.

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