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# Giant Perirenal Lipoma Masquerading as Wilms' Tumor

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Pure renal and perirenal lipomas are rare. They arise from the renal cortex,

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Received for publication: September 9, 1992; Accepted: October 21, 1993 capsule or perirenal tissue, and may be difficult to distinguish from renal adenocarcinoma or primary malignant renal tumor(1,2). We report an 18-month-old child who presented with a renal mass measuring 30 X 25 X 20 cm, which had radiological and operative findings suggestive of a Wilm's tumor, but proved to be a mature lipoma. To the best of our knowledge, this is the first such reported case in the pediatric age group.

## Case Report

An 18-month-old male child presented with a lump in the left flank since 4 months. There was no history of hematuria or any bowel complaints. All laboratory investigations were within normal limits. Ultrasonography showed normal right kidney and a left kidney tumor suggestive of Wilm's

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tumor. IVP revealed normal right kidney and non-visualization of the left kidney, CT scan and arteriography were not done in this case. A clinical diagnosis of Wilm's tumor was entertained and a left nephrectomy performed.

The tumor was well encapsulated, situated at the upper pole of the kidney outside the renal capsule, weighing 1.75 Kg and measuring 30 X 25 X 20 cm, with a yellow greasy cut surface. The mass was compressing the kidney but was not arising from it (Fig. 1). Microscopically, the tumor was composed of lobules of mature lipocytes separated by fibrocollagenous septae (Fig. 2). There was no evidence of lipoblast or malignancy. Kidney, renal vein and ureter were normal.

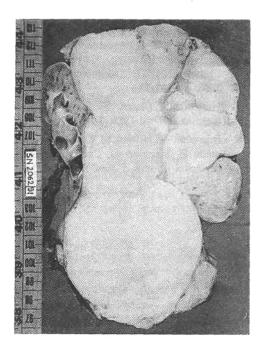


Fig. 1. Gross photograph of a yellowish tumor measuring 30 × 25 × 20 cm compressing the kidney.

#### **Discussion**

Perirenal lipomas can be distinguished grossly from intra-renal lipoma. The renal capsule completely surrounds the intrarenal tumor. Should the renal capsule be found within or between tumor and renal parenchyma, then the diagnosis of perirenal lipoma must be entertained as was seen in our case. Perirenal lipoma may exist as an encapsulated tumor that displaces the kidney or envelopes it(3). Perirenal lipomas can also be differentiated, microscopically, from renal capsuloma which are subcapsular mixed tumors, containing fibrous tissue, muscle and adipose tissue(4) and from liposarcomas by the cytologic uniform appearance of mature lipocytes as seen in our case and by the absence of local invasion or secondary changes of hemorrhage and necrosis as seen in liposarcoma(4).

Lesions involving the renal capsule and perirenal area are rare. Lipomatous differentiation of primitive mesenchymal cells is the most plausible explanation of the origin(4). They represent a diagnostic dilemma because of the necessity to exclude a primary malignant renal tumor such as clear cell sarcoma of kidney, malignant rhabdoid tumor of kidney or a renal carcinoma. Ultrasonogrpahy and IVU may reveal a peripheral mass but will not distinguish a benign capsular mass from a peripheral carcinoma. A CT scan reveals typical fat density suggestive of a lipoma resulting in a conservative excision. Hence, a CT scan followup with a frozen section may spare the patient of a radical nephrectomy (5,6).

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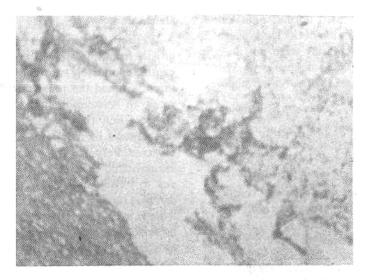


Fig. 2. Perirenal tumor composed of mature lipocytes only (lipoblasts were not seen) HE  $\times$  100.

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