# CT OF RETROPERITONEAL MYXOID LIPOSARCOMA IN A CHILD

**Pannee VISRUTARATNA, Chusak SIRIVANICHAI, Sukanya REUNGRONGRAT.**

## ABSTRACT

Abdominal CT scans of a 2-year-3-month-old boy with retroperitoneal myxoid liposarcoma are presented which show a well-demarcated soft tissue mass with near-water density and intermingled septa.

## INTRODUCTION

Abdominal masses in pediatric patients are a common problem encountered by radiologists. Neuroblastomas and Wilms tumors are common abdominal tumors in this age group. We present a case of retroperitoneal myxoid liposarcoma, a rare cause of abdominal masses in children.

## CASE REPORT

A 2-year-3-month-old boy appeared with a large abdomen, which he had had for a few months. Physical examination revealed a large abdominal mass on the left side fixed to underlying tissue with firm consistency and a smooth surface. There was no tenderness on palpation. A complete blood count and urine analysis were normal. CT scans of the abdomen showed a large well-demarcated mass on the left side of retroperitoneum (Figs. 1 and 2), which was of near-water density and had intermingled septa. There were no calcifications in the mass. The left kidney was displaced posteriorly. The remainder of the abdomen was normal. A chest radiograph and bone scan were normal. A sample from fine needle aspiration biopsy of the mass was myxoid. On exploratory laparotomy, a mass measuring 11X12X14 cm and weighing 2000 gm was found arising from the soft tissue of the retroperitoneum and was removed completely. Pathological examination showed myxoid liposarcoma. The patient has remained well 10 months after surgery.

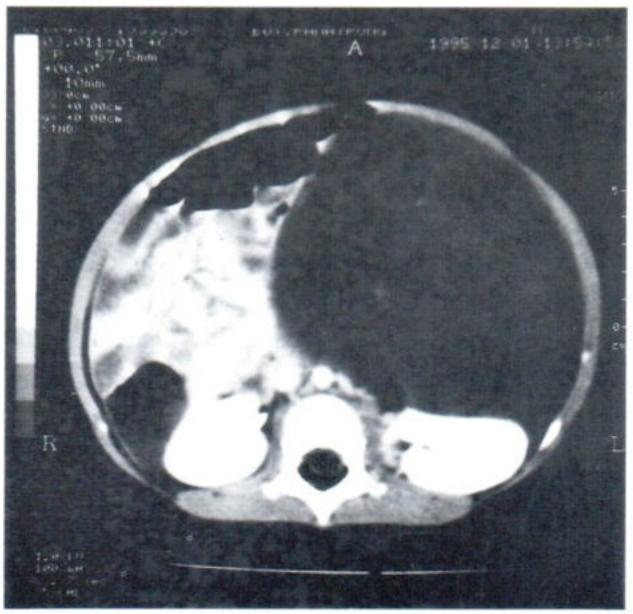


**Fig 1.** CT scan at the level of the renal hila shows a well-demarcated mass with near -water density containing intermingled septa. The mass has pushed the left kidney posteriorly.

Department of Radiology, Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, THAILAND

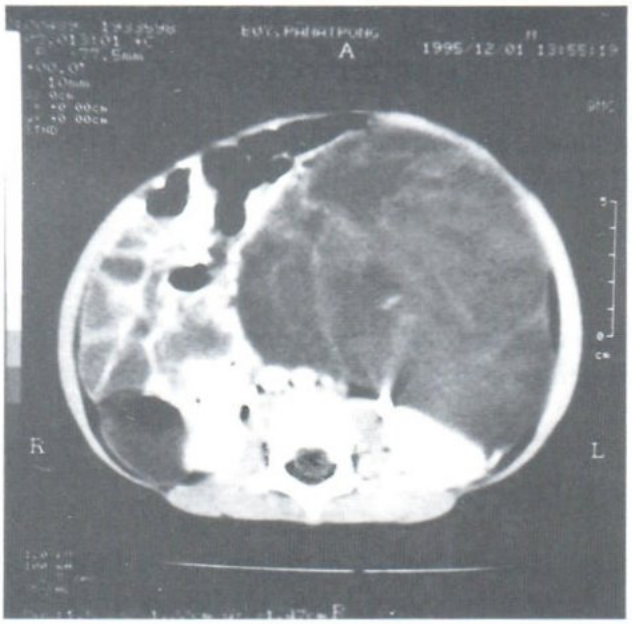


**Fig 2.** CT scan at the level of the lower pole of the kidneys. Note that the mass does not encase the aorta and inferior vena cava.

## DISCUSSION

Liposarcoma is one of the most common soft tissue sarcomas in adults. It is usually located in the deep soft tissues of extremities (especially the thigh) and the retroperitoneum. It is currently classified into well-differentiated, myxoid, round cell and pleomorphic types.[1]

Liposarcoma is rare in children. Childhood liposarcoma tends to occur in infancy and early adolescence. It occurs primarily in the extremities. In one review article,[2] retroperitoneal liposarcoma was found in 10.8% of cases of childhood liposarcomas. The most common type in this age group is myxoid, which has a better prognosis overall than it does in adults.

The density of a myxoid liposarcoma on CT scans is greater than that of normal fat. Usually it has a homogeneous soft tissue appearance on a CT scan, but well-differentiated portions can be radiolucent and poorly-differentiated portions can be more radiodense.[3] Waligore et al.[4] reviewed the CT appearance of 11 myxoid liposarcomas and found that the dominant densities of these tumors varied considerably. At the lower end of densities the tumors had densities near that of water, and at the higher end densities similar to that of muscle. Most of the tumors were sharply defined. Focal calcifications were seen in two of the tumors. Only three of the tumors contained components of the same density as normal fat. In the present case, the mass was well-demarcated and displaced the retroperitoneal structures, which is different from neuroblastoma, the more common retroperitoneal tumor in childhood. Neuroblastoma has a poorly-defined margin, and it usually encases the aorta and its major branches. The density of the mass in our case was also different from that of neuroblastoma.

Regarding the treatment, complete surgical resection is crucial for survival in young patients with liposarcoma. External beam radiation therapy may be effective against residual tissue.[5]

## REFERENCES:

1. Smith TA, Easley KA, Goldblum JR. Myxoid/round cell liposarcoma of the extremities. Am J Surg Pathol 1996;20(2):171-180.
2. Castleberry RP, Kelly DR, Wilson ER, Cain WS, Salter MR. Childhood liposarcoma: report of a case and review of the literature. Cancer 1984;54:579-584.
3. Mikkilineni RS, Bhat S, Cheng AW, Prevosti LG. Liposarcoma of the posterior mediastinum in a child. Chest 1994;106:-1288-89.
4. Waligore MP, Stephens DH, Soule EH, McLeod RA. Lipomatous tumors of the abdominal cavity: CT appearance and pathologic correlation. AJR 1981;137:539-545.
5. La Quaglia MP, Spiro SA, Ghavimi F, Hadju SI, Meyers P, Exelby PR. Liposarcoma in patients younger than or equal to 22 years of age. Cancer 1993;72:3114-9.