RETROPERITONEAL LYMPHANGIOMA : SPIRAL CT IMAGES

Janjira JATCHAVALA[1], Patchrin PEKANAN[1], Sirintara PONGPECH[1], Kamolpong OSATHAVANICHVONGS[2].

ABSTRACT

A case of retroperitoneal lymphangioma was demonstrated by spiral CT scan. Sagittal and coronal reconstructions and spiral CT angiography were highly efficient in determination of the exact location and character of the tumor.

INTRODUCTION

Lymphangioma of the retroperitoneum is rare and usually found incidentally at surgery, autopsy or lymphography (1,2). When clinically significant, they may present as an abdominal mass or pressure effect to the adjacent organs (3.4). A correct preoperative diagnosis may be helpful in treatment planning. The radiologic features demonstrated by lymphography, ultrasonography, conventional CT and MRI had been previously reported (2-11). To our knowledge, the radiologic findings of retroperitoneal lymphangioma was not reported.

CASE REPORT

A 38-year-old man presented with recurrent epigastric pain. Physical examination revealed mild tenderness at epigastrium. The rest of the physical examination was normal. Routine laboratory values were within normal limits. Plain abdomen showed two faint tiny calcifications at left suprarenal region. Ultrasonography revealed a structureless cystic mass at the pancreatic tail and anterior aspect of left kidney (Fig. 1). Some septations were seen. Spiral CT scan with sagittal and coronal reconstruction showed a water-density mass with lobulated contour and small punctate calcifications, situated at left suprarenal region, measuring 3.5 X 4.6 X 9 cm. (Fig. 2). No significant enhancement was seen after contrast medium injection. The mass was not encapsulated and appeared to be soft and extended along anteromedial aspect of left kidney. The mass was anterior to left renal vein and artery. Spiral CT angiography demonstrated that the mass was hypovascular. Left renal arterial branches supplied the periphery of the mass (Fig. 3). There was an evidence of communication between the mass and the lymphatic chain at inferomedial aspect (Fig. 4). Left adrenal gland and pancreas were normal. The diagnosis of retroperitoneal lymphangioma was considered. At laparotomy, a multiloculated cystic mass, measuring 4 X 3 X 3 cm. was excised from the retroperitoneal space. The pathologic diagnosis was lymphangioma.

DISCUSSION

Lymphangiomas are the lymphatic analog of the hemangiomas of blood vessels (12). They are classified histologically into two groups, simple (capillary) and cavernous lymphangioma (cystic hygroma).

Simple (capillary) lymphangiomas are composed of a network of endothelium-lined lymph spaces. They tend to occur subcutaneously in the head, neck and axilla. Cavernous lymphangiomas (cystic hygroma) are made up of massively dilated

[1] Department of Radiology, Ramathibodi Hospital, Rama 6 Street, Bangkok 10400, Thailand.
[2] Medical software project and development, Mahidol University.

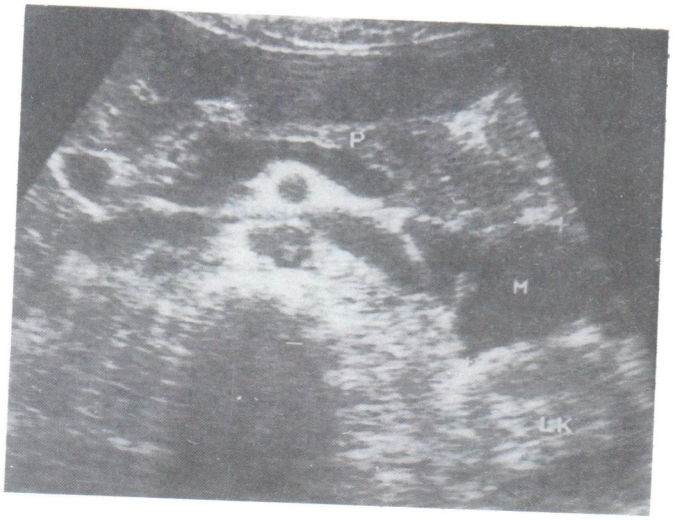

Fig.1A. Sonogram in trasverse plane showed a cystic mass with septations located at dorsal aspect of the pancreatic tail and anterior to left kidney.

cystic spaces lined by endothelial cells and separated by a scant intervening connective tissue stroma. This type of lymphangioma is analogous to the cavernous hemangioma.

The cause of lymphangioma of the retroperitoneum has not been clearly estabished (7,13). It is unlikely that it is either a true neoplasm or a hamartoma. Rather, it is now usually regarded as a developmental malformation resulting from failure of developing lymphatic tissue to establish normal communication with the remainder of the lymphatic system (10). They may be single or multiple, unilocular or multilocular, and may contain serous or chylous fluid (14). They can occur in patients of all ages (10) and no sex predilection. This tumor may cause no symptom or may cause symptoms by displacement or compression of adjacent structures (2-4) and some of the symptoms

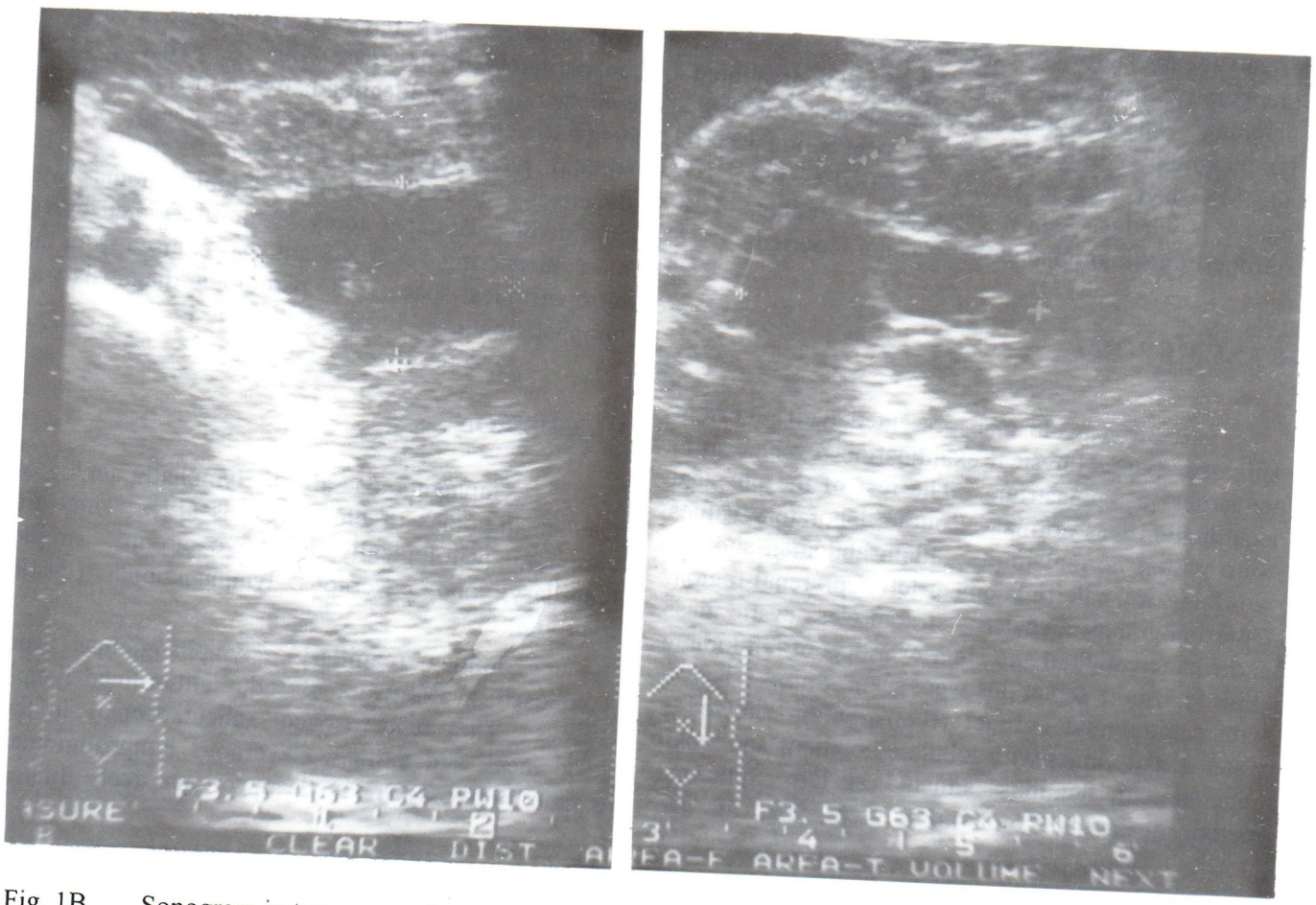

Fig. 1B Sonogram in transverse plane (left) and parasagittal plane (right) showed multiloculated cysts with elongated shape.

Fig.2B Post contrast study showed no enhancement of the mass.

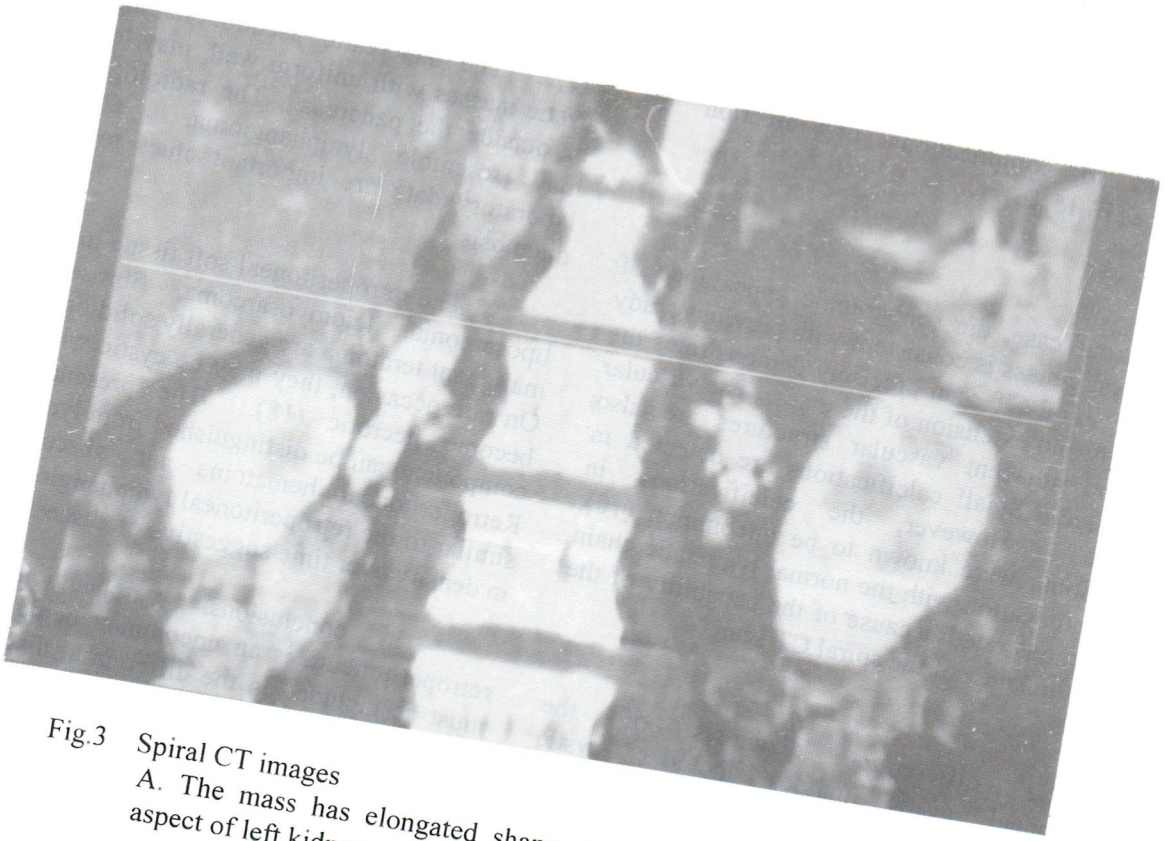

Fig.3 Spiral CT images
A. The mass has elongated shape, extending along the anteromedial aspect of left kidney.

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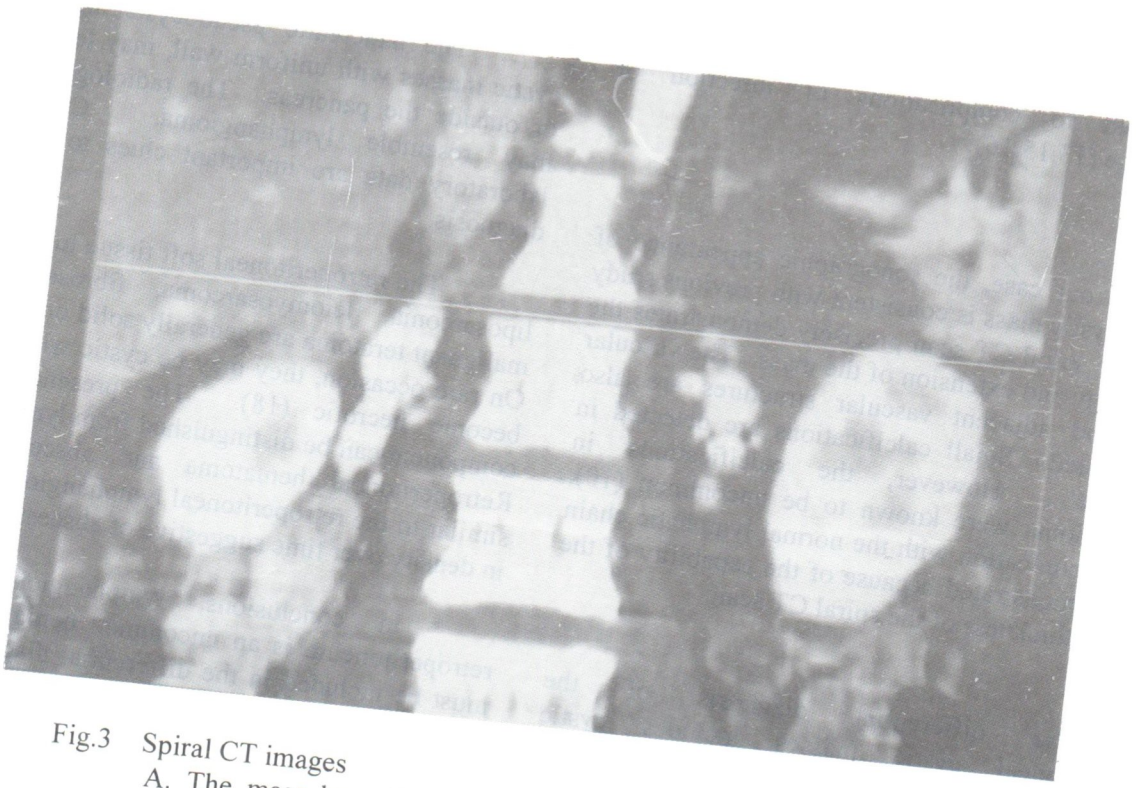

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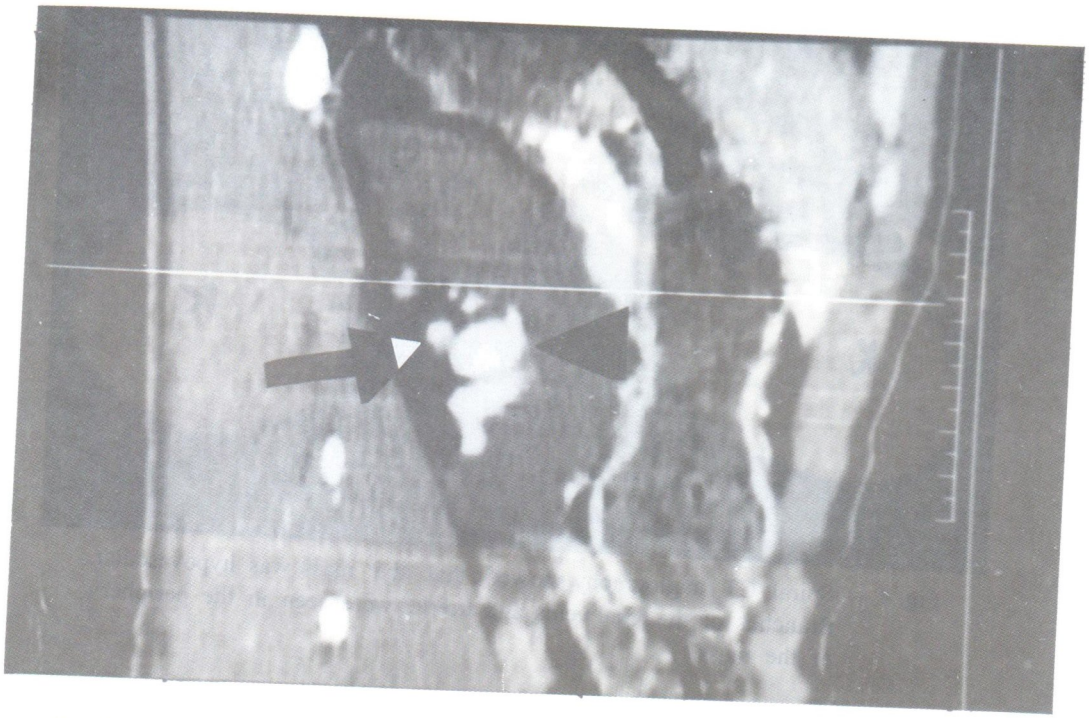

Fig.3B Left renal artery (arrow) and vein (arrowhead) are seen in the posterior aspect of the mass.

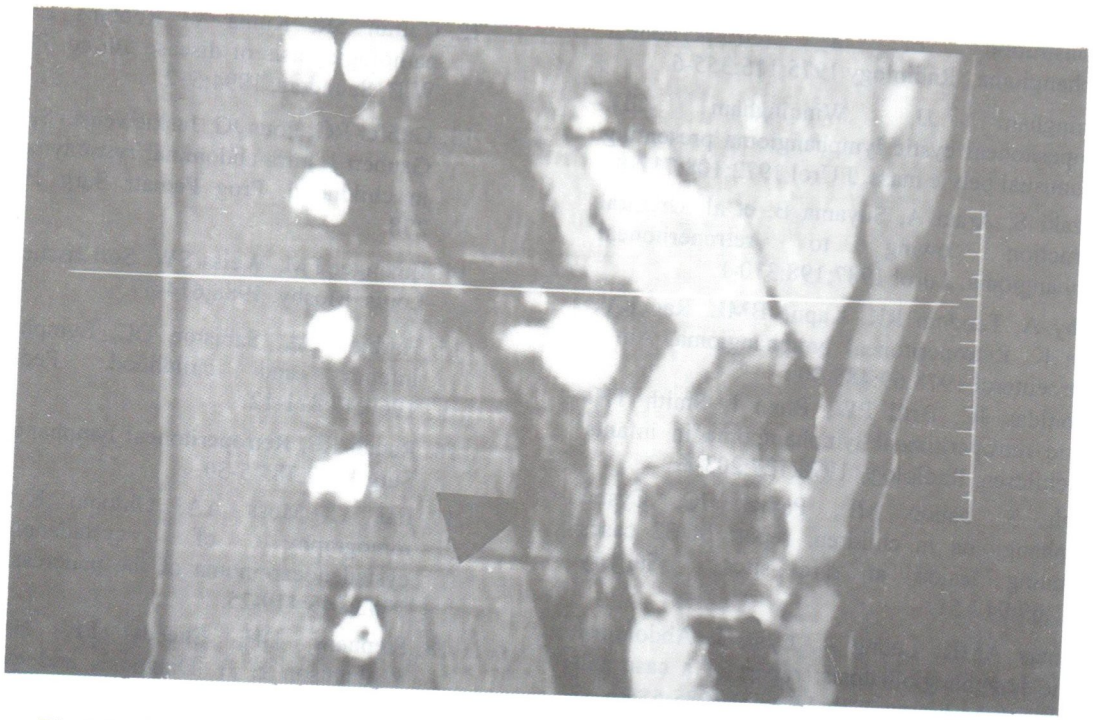

Fig.3C Communication of the mass to the normal lymphatic chain (arrowhead)

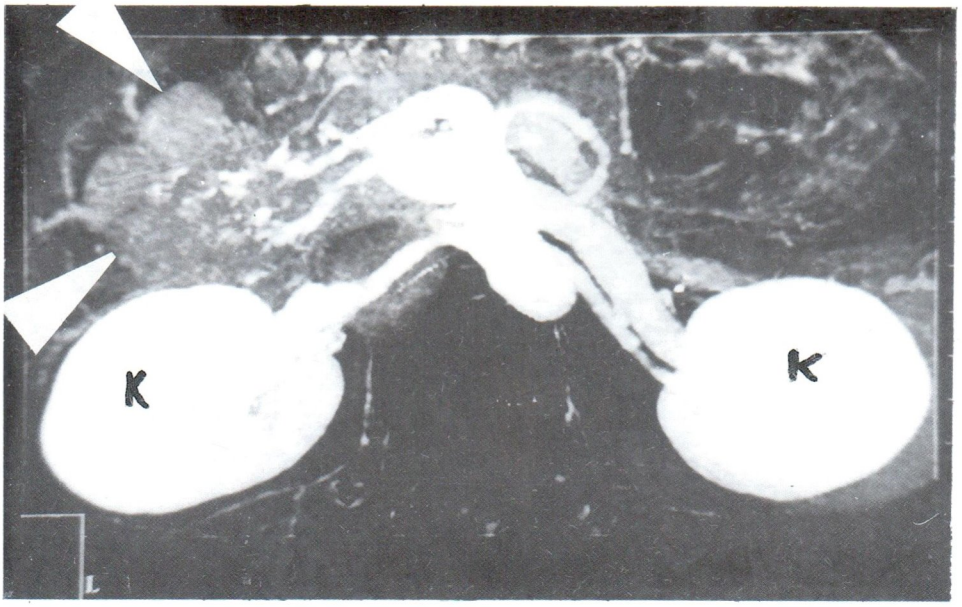

Fig. 4 Spiral CT angiography showed that the mass was hypovascular. Branches of the renal veins and arteries were seen in the periphery of the mass.

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