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CASE REPORT

Retroperitoneal Lymphangioma in an Adult

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ABSTRACT

Retroperitoneal lymphangioma is a rare benign congenital malformation of lymphatic channels. This report is of a 51-year-old man with an incidental finding of retroperitoneal lymphangioma.

Key Words: *Lymphangioma, Retroperitoneal space, Tomography, X-ray computed, Ultrasound*

CASE REPORT

A 51-year-old man presented with joint pain and was incidentally found to have impaired liver function. Ultrasound examination of the abdomen showed an irregular lobulated hypoechoic lesion casting strong posterior enhancement in the upper abdomen (Figure 1) posterior to the liver, anterior to the aorta, and superior to the pancreas, measuring approximately 9 cm x 4 cm x 3.5 cm. Computed tomography (CT) scan showed a homogeneously hypodense well defined mass without an appreciable wall (Figure 2). The mass measured 10.5 cm x 5 cm x 6 cm in size and was located superior to the head and body of the pancreas,

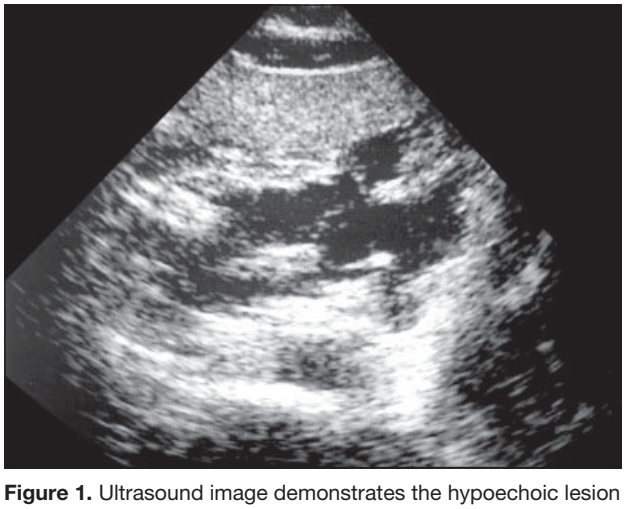

Figure 1. Ultrasound image demonstrates the hypoechoic lesion with posterior enhancement.

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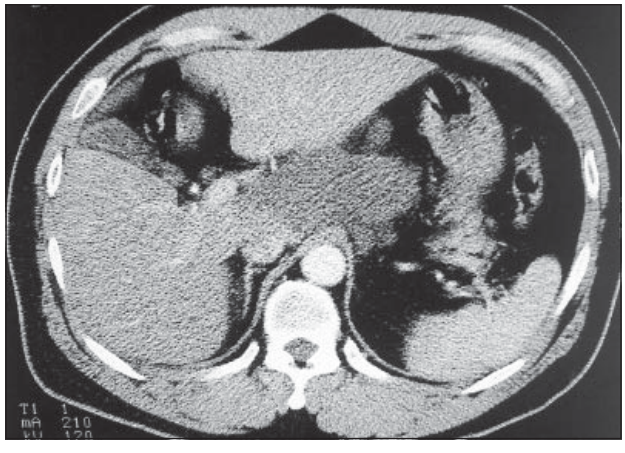

Figure 2. Post-contrast computed tomography image shows no enhancement of the lesion, which is located in the retroperitoneal space.

posterior to the left lobe of the liver, insinuating anteriorly to the portocaval space to separate the main portal vein from the inferior vena cava. The density of the lesion was 20 HU. There was no significant enhancement after contrast administration. The patient underwent laparoscopy and biopsy of the retroperitoneal mass, which showed retroperitoneal lymphangioma.

Subsequent follow up by magnetic resonance imaging (MRI) was performed and the lymphangioma was characterised by homogeneously hypointense signal in T1-weighted images (Figure 3) and hyperintense signal in T2-weighted images (Figure 4), relative to the muscles. The size showed no significant interval change.

DISCUSSION

Lymphangioma is a benign congenital malformation of lymphatic channels, which has been classified into 3 groups: capillary, cavernous, and cystic depending

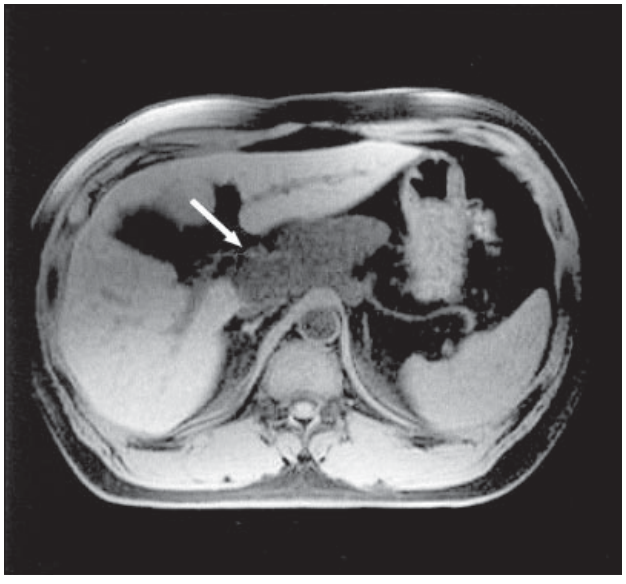

Figure 3. T1-weighted magnetic resonance image shows hypointense signal of the lesion.

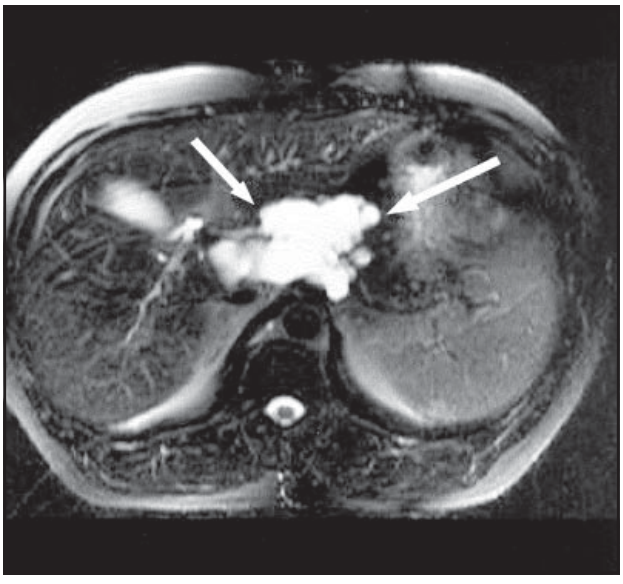

Figure 4. T2-weighted magnetic resonance image shows hyperintense signal of the lesion.

on the size of lymphatic space.[1] Histologically, it is characterised by a flat epithelial endothelium and a wall alternatively containing lymphoid tissue, small lymphatic spaces, smooth muscle, and foam cells.[2] Lymphangioma is most commonly found in paediatric patients.[3] The most frequently involved regions are the neck (75%) and axilla (20%).[4,5] Less than 5% of lymphangiomas are diagnosed intra-abdominally[3,6] and they have been reported in mesentery,[7] gastrointestinal tract,[8] spleen,[9] liver,[10] and pancreas.[3] They are infrequently encountered in the retroperitoneum. Patients with retroperitoneal lymphangioma are usually asymptomatic and the masses are often found incidentally by imaging technique or surgery for other purposes.[1] Occasionally a patient will present with symptoms when the tumour is large, or when infection, haemorrhage, torsion, or rupture occur.[1]

On ultrasound imaging, retroperitoneal lymphangioma may appear as a multiloculated hypoechoic or anechoic fluid-filled mass with internal septations. CT shows a well-circumscribed, multiloculated, homogeneous cystic mass. Internal septations and the thin wall may enhance after intravenous contrast injection. CT has the advantage of providing more information on the size, extent, composition, and relationship with important adjacent structures. Any compression onto these organs can also be well demonstrated.

On MR imaging, lymphangioma displays homogenous hyperintense signals in T2-weighted images and low intensity signals in T1-weighted images.

Differential diagnoses include benign lesion such as simple cyst and pseudocyst,[3] and necrotic neoplastic growth such as liposarcoma, leiomyosarcoma, fibrosarcoma, teratoma,[1] or metastatic lymphadenopathy. The final diagnosis requires histopathological examination, usually achieved by excision or biopsy. Complete surgical excision is the treatment of choice[4] but may be difficult in some patients due to local invasiveness as demonstrated in this reported patient. Some surgeons may advocate internal peritoneal cavity marsupialisation.[4] Aspiration, drainage, and irradiation of the lymphangioma give a poor result.[4] Treatment by argon beam ablation and sclerotherapy have also been reported in a patient with a life-threatening total abdominal lymphangiomatosis.[11]

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Erratum

In the ESAOTE advertisement that appeared on page 50 of the January-March 2003 issue of the *Journal of the Hong Kong College of Radiologists* (*J HK Coll Radiol* 2003;6(1):50), the e-mail address address should read as:

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