## Intraabdominal and Retroperitoneal Lymphangiomas in Adults: Report of Six Cases

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This study retrospectively reviewed the clinical features of intraabdominal and retroperitoneal lymphangiomas. We also evaluated the preoperative diagnosis, radiological features, surgical treatment and outcome of these rare tumors.

Between 2001 and 2006, six patients underwent surgical resection of abdominal lymphangioma. The clinicopathological data were collected and the patients' medical records, operative notes and pathology reports were reviewed.

The age at diagnosis ranged from 22 to 57 years. The main clinical symptoms were abdominal distension (n=2), flank pain (n=2) and tenesmus (n=1). One patient was asymptomatic and incidentally detected during the laparotomy. The male-to-female ratio was 1:1. The abdominal lymphangiomas occurred in the mesentery (n=2), retroperitoneum (n=2), jejunum (n=1) and spleen (n=1). All six patients underwent complete surgical resection with or without organ resection, and there was no recurrence at a mean follow-up of two years (ranged from two months to 4.5 years). Adult type abdominal lymphangiomas are benign and indolent. They develop during fetal life and have a chronic history, and thus may present later in adulthood. A

fetal life and have a chronic history, and thus may present later in adulthood. A complete resection is suggested after the diagnosis is established, and gives a favorable prognosis.

Key words: intraabdominal and retroperitoneal lymphangiomas, surgical resection

Abdominal lymphangiomas are rare, congenital malformations of the lymphatics which are found mainly in children. Lymphangiomas are reported most commonly in the neck or axillary region, which account for at least 95 per cent of cases. Abdominal lymphangiomas are rare but have been reported in the mesentery, gastrointestinal tract, retroperitoneum, spleen, liver and pancreas. Reports of abdominal lymphangiomas in the literature have been limited to small series and isolated case reports, with majority of patients in the pediatric age group. We report six adult patients with abdominal lymphangioma and evaluate the radiological feature, surgical treatment and outcome of this rare tumor.

Between 2001 and 2006, six patients underwent surgical resection of abdominal lymphangioma at Chia-Yi Christian Hospital. The clinicopathological data were collected and the patients' medical records, operative notes and pathology reports were reviewed retrospectively. The diagnosis of abdominal lymphangioma was made according to four histologic criteria: (1) cyst lined by a flat endothelial epithelium (the lining cells express CD34 or factor-VIII); (2) small lymphatic spaces; (3) abundant lymphoid tissue; (4) smooth muscle present in the cyst wall (Fig 1).

## **P**atients and Methods

Results

The demographics and clinical characteristics of the

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