Cystic Lymphangioma of the Greater Omentum in an Adult: A Case Report

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Summary
Cystic lymphangiomas are usually congenital benign tumours, derived from lymphatic vessels, and occur more frequently in childhood. We report a case of an acquired cystic lymphangioma of the greater omentum in a patient with a history of nephrectomy and splenectomy after a traffic trauma. A laparoscopic excision was performed, and we report an interesting iconography.

Case report
A 47 year-old woman presented with abdominal pain, and a large palpable mass in the right iliac fossa. An abdominal CT-scan revealed a simple cyst in the middle abdomen, without signs of complication or invasiveness. Endoscopic ultrasonography confirmed the CT-scan findings. CT-guided fine needle aspiration (FNA) of the fluid was performed and led to complete collapse of the mass. The cytology examination of the fluid demonstrated the presence of lymphocytes, without neoplastic cells. After two months, the palpable abdominal mass reappeared.

Explorative laparotomy was decided. During exploration of the peritoneal cavity, a cyst of the greater omentum was observed, without involvement of abdominal organs. Multiple accessory spleens, due to the dissemination of spleen parenchyma after the trauma, were also found. Complete resection of the cyst and surrounding omentum was performed without leakage of cystic fluid. Anatomopathologic examination demonstrated a dilatation of the lymphatic vessels without evidence of neoplastic cells, compatible with a cystic lymphangioma. The patient was discharged on post-operative day 7 after an uneventful course.

Discussion
Cystic lymphangiomas are rare benign childhood tumours, most frequently located in the head and neck. Approximately 800 cases of lymphangiomas located in the greater omentum have been reported1. The aetiology of omental lymphangiomas is unclear. In children, they may result of a congenital abnormality caused by the obstruction of a lymphatic duct during the embryologic development. In adults, there are different possible etiologies: abdominal trauma, lymphatic obstruction secondary to inflammation or surgery, malignant tumours and radiation2. Usually, small lymphangiomas are asymptomatic. As they grow in size, these larger lesions may cause abdominal pain, intestinal symptoms, or rupture with haemorrhage, or volvulus.

The diagnosis can be suggested by ultrasonography (US) and computerized tomography (CT). US- or CT-guided FNA of the fluid is essential to establish the diagnosis. Cystic lymphangiomas usually present, as a large multilocular cyst containing lymphocyte-rich fluid; cases with acute intracystic haemorrhage are more difficult to diagnose. It is important to distinguish this benign tumor from malignant cystic neoplasm, and other lesions included in the differential diagnosis (dermoid cyst or teratomas, pseudocyst, cystic degeneration of solid tumours)3-4. Complete resection with negative microscopic margins is the treatment of choice, even when asymptomatic, and any involved organ must also be resected5.

Radical resection is sometimes technically impossible, because of local invasiveness with infiltration of adjacent organs or the main arterial branches. Incomplete resection has a 10% postoperative recurrence rate. Simple aspiration with or without injection of a sclerosing agent should be avoided because of extremely high risk of infection or recurrence rates6. Laparoscopic resection is an excellent alternative to conventional open abdominal resection, and gives the patients the advantages of minimally invasive surgery1.

Conclusion
To conclude, we would like to emphasize three points. The first one is the importance of establishing a diagnosis. The second is the necessity to perform a complete negative margin surgical resection. Finally, follow-up monitoring is important, because of the risk of recurrence.

References
1 Yoichi Sakurai, Keizo Taniguchi, Ichiro Uyama, Kazuki Inaba et al. Laparoscopic excision of the cystic Lymphangioma occurred in the lesser omentum. Surg Laparosc Endosc Percutan Tech 19; 1: 11-14
2 Chen CW, Hsu SD, Lin CH, et al. Cystic lymphangioma of the jejunal mesentery in an adult