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LETTER TO EDITOR

Unicentric Castleman disease in the lesser omentum: A case report

To the editor,

Castleman disease (CD) is a rare abnormal lymphoproliferative disease. The etiology and pathogenesis of CD are still unclear, making diagnosis difficult.[1] Benjamin Castleman first reported a rare benign lymphadenoproliferative disease in 1954.[2] There are two types of CD in clinic: unicentric CD (UCD) and multicentric CD (MCD), depended on the location of one or more lymph nodes involved. According to the pathological results, it is divided into three types: hyaline vascular type, plasma cell type and mixed type.[3] This disease would develops in all lymph nodes, which mostly occurs in the mediastinum, but CD in the lesser omentum is relatively rare. We report a case of UCD in the lesser omentum who presented no clinical symptoms with imaging examination revealed hepatogastric space masses.

A 26-year-old male was admitted to our hospital due to abdominal masses were found by examination for 1 month without clinical symptoms. Blood routine, biochemical, tumor markers and other laboratory examinations showed no abnormalities. Abdominal computed tomography scan showed several masses in the hepatogastric space, the larger of which was about 2.2 cm × 2.2 cm in size. In addition, enhanced CT showed masses were markedly enhanced. Magnetic resonance imaging scan of the abdomen showed that several nodular abnormal signal shadows in the hepatogastric space, the larger one was about 2.2 cm × 2.2 cm in size with clear boundary, that hypointense signal on the T1 weighted image, hyperintensity on the fat-suppression T2 weighted image, marked enhancement on the arterial phase was homogeneous and the venous phase and delayed phase continued to intensify. Systemic ^{18}F-FDG PET/CT showed several tuberous soft tissue density shadows in the hepatogastric space, the larger of which had a diameter of about 2.2 cm. Abnormal radioactive concentration was observed in PET imaging with SUVmax 2.2, and also in delayed PET imaging with SUVmax 1.5, w1hich showed slightly higher metabolism. It considered the possibility of Castleman disease (Fig. 1). Then this patient performed fine needle aspiration biopsy of lesser omentum masses under the guidance of endoscopic ultrasonography, the biopsy pathology showed lymphoid tissue and combined with immunohistochemistry, it showed reactive hyperplasia of lymphoid tissue. According to the above results, lesser omentum masses were diagnosed preoperatively.

The patient underwent laparoscopic hepatogastric space mass resection. During the operation, there were several nodules in the hepatogastric space with the diameter of the larger one being about 2.0 cm and no abnormalities were observed in other organs. Then the surrounding tissues of the masses were separated and the tumor was completely removed. Postoperative histological examination showed lymphoproliferative lesions in lymph nodes and showed multiple lymphatic follicular which the germinal centers atrophied and the proliferation of peripheral lymphocytes arranged in an "onion skin" pattern (Fig. 1). The hyaline vascular type UCD in the lesser omentum was diagnosed. Following up for 1 year, the patient recovered well without relapses.

CD is a rare disease, which is difficult to diagnose early due to its lack of specific manifestations. It is helpful to refer to imaging results for the diagnosis of CD and make treatment plans based on pathological results. We report a relatively rare case of lesser omentum UCD, which will contribute to improving the understanding of CD and provide reference for future diagnosis.

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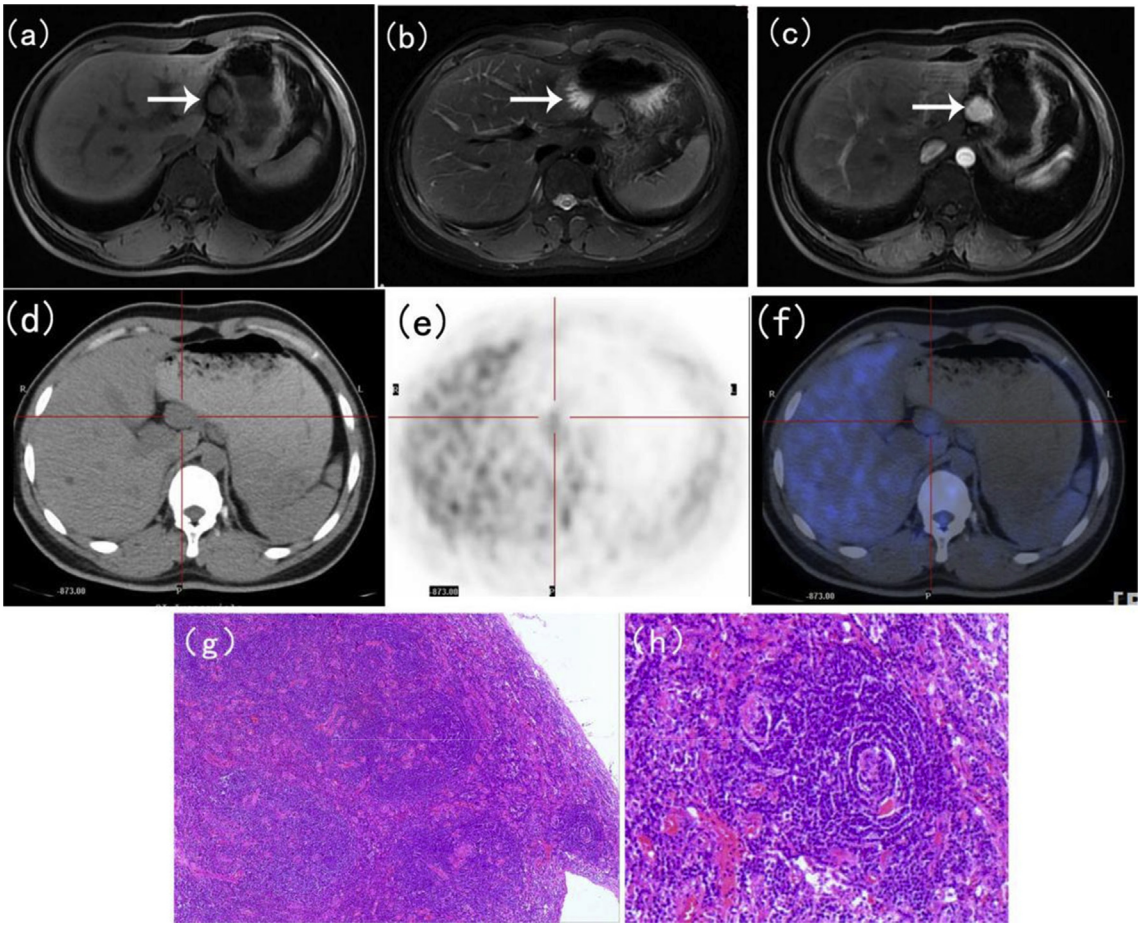

Figure 1 (a—c) Abdomen MRI: (a) hypointense signal on T1WI of hepatogastric space mass; (b) T2WI showed hyperintense signal; (c) Abdominal enhanced MRI(d-f)ystemic ^{18}F-FDG PET/CT: (d) Abdominal CT image; (e) Abdominal PET images: abnormal radioactive concentration in the hepatogastric space, suggesting an abnormal increase in ^{18}F-FDG uptake, (f) Abdominal PET/CT fusion image: an abnormal increase in ^{18}F-FDG uptake (g—h) Pathological diagnosis of hyaline vasculartype CD was made by pathology of the resected specimen. (g) Hematoxylin-eosin (HE) (40× magnification) multiple lymphatic follicular which the germinal centers atrophied and the proliferation of peripheral lymphocytes arranged in an "onion skin" pattern with hyalinization (h) HE (100× magnification) staining showed typical HV type CD.

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Conflicts of interest

All the authors have no potential conflicts of interest to disclose.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.asjsur.2019.07.003.

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