A Case of Castleman’s Disease Arising from the Greater Omentum

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Castleman’s disease is a rare benign lymphoproliferative disorder of unknown etiology with about 70% of cases occurring in the thorax. However, the disorder can also occur in an extrathoracic site where lymphoid tissue is present. We report here a rare case of omental Castleman’s disease in a 69-year-old female patient, imaged by three cross-sectional modalities: US, CT, and MRI with gadolinium.

Index terms
Castleman’s Disease
Omentum
MRI
CT
Ultrasonography

INTRODUCTION

Castleman’s disease is a rare benign lymphoproliferative disorder of unknown etiology. It is characterized by giant lymph node hyperplasia and a nonmalignant course. Castleman’s disease usually involves the mediastinum, with about 70% of cases occurring in the thorax. However, the disease can also occur in an extrathoracic site where lymphoid tissue is present such as the neck, axilla, shoulder area, mesentery, pelvis, pancreas, and retroperitoneum (1).

The presence of Castleman’s disease in the abdomen or pelvis is rare, and extremely rare at the omentum. To the best of our knowledge, only one case was reported in 1990 (2). We report one case of omental Castleman’s disease in a 69-year-old female patient, imaged by three cross-sectional modalities: US, CT, and MRI with gadolinium.

CASE REPORT

A 69-year-old woman with no previous history of medical illness visited the emergency room with right upper quadrant pain and mild sweating. She had no fever or weight loss. Initial laboratory testing showed an elevated white blood cell number of 12,000/μL and C-reactive protein level of 17.80 mg/dL. Other laboratory tests, such as electrolytes and urine analysis, were normal. A subsequent contrast-enhanced abdominal CT revealed several small stones within the mild dilated intrahepatic biliary trees. The findings were consistent with acute cholangitis. In addition, a 3.3 × 2.7 cm well enhancing mass was incidentally shown in the greater omentum (Fig. 1A). The mass showed a well-defined margin without adjacent abdominal solid organ invasion and heterogeneous hypoechogenicity to muscle with internal vascularity on ultrasonography (Fig. 1B). To gather more information, the patient underwent MRI with gadolinium enhancement. The results indicated a homogenous mass that was hypointense with T1 weighting (Fig. 1C) and hyperintense with T2 weighting (Fig. 1D) compared to the signal intensity of muscles. Homogeneous enhancement was present on a dynamic study with gadolinium. With these findings, this mass was suspected to be a lymphoma, desmoid tumor, or Castleman’s disease.

The omental mass was surgically resected (laparoscopic...
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Fig. 1. A. CT scan of the patient shows a well-circumscribed, well enhancing 3.3 x 2.7 cm mass in the greater omentum (arrow).

B. On ultrasonography, the mass shows heterogeneous hypoechogenicity compared to muscle with internal vascularity.

C, D. On the MRI, the mass is homogenous hypointense with T1 weighting (C) and hyperintense with T2 weighting (D), compared to the signal intensity of the muscles.

E, F. On histopathologic examination, diffusely scattered large follicles with markedly expanded mantle zone (E) (H&E stain, × 20) are present. The enlarged lymphoid follicle shows a small germinal, markedly vascular proliferation, and a broad mantle zone composed of a concentric layer of lymphocytes resulting in an onion skin appearance (F) (H&E stain, × 200).
lymphadenitis demonstrated by mild to moderate enhancement (9). MRI shows a low intensity mass on T1-weighted images and higher signal intensity on T2-weighted images. The differential diagnosis to distinguish it from lymphoma, leiomyoma, and leiomyosarcoma must be performed (10). However, the radiologic findings of Castleman’s disease are non-specific, and in most cases, the diagnosis of Castleman’s disease is confirmed after the resection and histopathological examination of the specimen.

**REFERENCES**

대망에서 발생한 Castleman 병의 증례 보고

강은주

Castleman 병은 림프조직증식을 보이는 원인이 잘 알려지지 않은 양성질환으로서 대부분이 흉부에서 발생하지만 림프조직이 있는 흉부 외 조직에서도 발생할 수 있다. 저자는 아주 드물게 보고된 대망을 침범한 Castleman 병을 경험하였기에 US, CT, MRI 소견을 보고하고자 한다.

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