Case 16735

Castleman’s disease: Mesenteric mass
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Section: Abdominal imaging
Area of Interest: Abdomen Gastrointestinal tract
Mesentery
Imaging Technique: CT
Imaging Technique: Ultrasound
Case Type: Clinical Cases
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Patient: 43 years, female

Clinical History:
A 43-year-old Caucasian lady who presented with vague abdominal discomfort and bloating for a few weeks was found to have a palpable mass in the right lumbar region in an otherwise soft and non-tender abdomen. After ultrasound and CT abdomen, she had surgical excision and recovered uneventfully. Histopathology showed low-grade lympho-proliferative disorder.

Imaging Findings:
Ultrasound abdomen depicted a solid mass inferomedial to the right kidney (measuring 6.5 x 4.5 x 4.4 cm) that was separate from the adjacent viscera but anchored to the mesentery. Colour Doppler showed feeding vessels. CT chest and abdomen confirmed lobulated intraperitoneal mass with internal calcification and a few enlarged mesenteric lymph nodes in the vicinity; this raised suspicion of Castleman’s disease.

Discussion:
Castleman’s disease (angiofollicular hyperplasia) is a rare low-grade giant lymph node hyperplasia with the potential risk of developing malignant lymphoma [1]. So far, it is of unknown aetiology and is more prevalent in the adult population mainly amongst 20-40 years of age with equal gender distribution [2]. It could be unicentric or multicentric depending upon the involvement of lymph node groups. Histopathologically, it is classified into hyaline vascular, plasmacytic and mixed cellularity variety [3]. Presence of calcification in lymph-node mass could sometimes be seen on plain films. Ultrasound can be helpful in diagnosing abdominal cases, whereas MRI is superior in the delineation of anatomical plains. Clinical features, management, and prognosis of Castleman’s disease differ according to its classification and the HIV status of the patients. In the unicentric cases, a single lymph node group is involved either in the mesentery or the mediastinum [4] as in this case. The disease progression is relatively slow without many constitutional symptoms and the acute phase reactants (ESR, CRP and IL6) are often in normal ranges. In contrast, clinical findings are very dominant in the multicentric type, presenting general and specific signs and symptoms due to widespread lymphadenopathy. Presence of constitutional symptoms is common like headache, nausea and vomiting, anorexia, severe fatigue, fever, night sweat, and weight loss. Hepatomegaly, peripheral oedema, and anaemia can also occur. Acute phase reactants are elevated because of the overproduction of IL6. Management of CD consists of surgery, chemotherapy and radiotherapy. Immunomodulators including steroids, antiviral, monoclonal antibody, and supportive therapy are also offered in selected cases. The prognosis of CD is relatively varied. Patients’ survival time after diagnosis ranges between 2 weeks to 20 years (average being from 14 to 30 months). The treatment outcome of the unicentric form after resection is satisfactory while recurrence is noticed in 33-50% of cases of the multicentric form [5].
Conclusion: A radiologist should consider the provisional diagnosis of Castleman’s disease upon finding a lobulated mesenteric or mediastinal mass with central calcification and vascular pedicle on CT scan. The current case provides an account of successful surgical management in a young adult with unicentric Castleman’s disease.

Written informed patient consent for publication has been obtained.

**Differential Diagnosis List:** Unicentric mesenteric castleman’s disease, Carcinoid tumour, Desmoid tumour, Gastrintestinal stromal tumor (GIST), Lymphoid hyperplasia of other causes

**Final Diagnosis:** Unicentric mesenteric castleman’s disease

**References:**


Description: Ultrasound abdomen – Right-sided abdominal mass Origin: Dr. Sohail Iqbal and Dr Mohammed Al-Dabbagh from Colchester General Hospital, Colchester
Figure 2

Description: Colour Doppler - Flow in the mesenteric mass

Origin: Dr. Sohail Iqbal and Dr Mohammed Al-Dabbagh from Colchester General Hospital, Colchester.
Description: CT abdomen axial - Mass with calcification and contrast enhancement, simple renal cyst.
Origin: Dr. Sohail Iqbal and Dr Mohammed Al-Dabbagh from Colchester General Hospital, Colchester.
Figure 4

Description: Coronal reconstruction of CT abdomen depicts large mesenteric mass with calcification.
Origin: Dr. Sohail Iqbal and Dr Mohammed Al-Dabbagh from Colchester General Hospital, Colchester.