

Accessory Spleen Presenting as Mass in the Left Upper Abdomen

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ABSTRACT

An enlarged accessory spleen, 10 x 8 x 6 cm in diameter, adjoining the spleen appearing as a mass on CT and ultrasonography is reported herein. Accessory spleen is an ectopic mass of healthy splenic tissue separate from the main body of the spleen. It should be considered the differential diagnosis of an enlarged mass in the left upper quadrant.

Key words: Accessory spleen. Mass. Abdomen. Left upper quadrant.

INTRODUCTION

Accessory spleen is an ectopic mass of healthy splenic tissue separate from the main body of the spleen. An accessory spleen arises embryologically from failure of fusion of the mesenchymal buds in the dorsal mesogastrium during the 5th week of fetal life.¹ Accessory spleens are seen in 33% of patients with hematologic diseases. It is usually an incidental finding on abdominal Computed Tomography (CT) or other imaging studies.² The CT appearance is a round or ovoid well-marginated mass with homogeneous enhancement ranging from a few millimeters to more than 3 cm.³ Shunzen *et al.* recently presented a large accessory spleen, 5 cm in diameter, presented a submucosal tumour of the stomach at endoscopy.⁴

In the present case, the accessory spleen was exceptionally large.

CASE REPORT

A 34-year-old man presented with 2 months duration of upper abdominal discomfort. His past and family histories were non-contributory. He did not smoke and drink alcohol, and received no previous gastrointestinal surgeries including splenectomy. On admission, physical examination and laboratory data, including peripheral blood counts and liver function tests, were all unremarkable.

An abdominal computed tomography scan showed a well-marginated and homogeneously enhanced ovoid mass, 10 x 8 x 6 cm in diameter (Figure 1a,b).



Figure 1a: Axial CT images of accessory spleen (lines).



Figure 1b: Coronal CT images of accessory spleen (lines).

Abdominal ultrasonography also showed this solid mass in the upper left abdominal space adjacent to left colon, spleen and pancreas. Patient underwent laparotomy. At operation, a mass in the upper left abdomen was found spaced on the left colon adjacent to pancreas and spleen. The mass was completely removed (Figure 2).

On histopathologic examination, a diagnosis of congestive accessory spleen was made. One of the concerns might be whether or not this could have been diagnosed by a functional uptake study, such as a liver-spleen radionuclide scan. On postoperative 4th day, patient was discharged without any complication.



Figure 2: The congestive accessory spleen.

DISCUSSION

An enlarged accessory spleen appearing as a mass on CT and ultrasonography is reported herein. Beahrs *et al.* observed no accessory spleen larger than 2.5 cm among more than 8000 abdominal CT examinations of patients with normal-sized intact spleen.⁵ It has been reported that accessory spleens undergo compensatory hypertrophy as a result of previous splenectomy, which sometime reaches 3-5 cm in size.¹ The accessory spleen seen in the present case seems to be exceptionally large despite no history of splenectomy.

Typically, accessory spleen appears on CT scans as well-marginated, round masses smaller than 2 cm and

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enhance homogeneously on contrast-enhanced image. Most frequent location (22%) is posteromedial to the spleen; anterolateral to the upper pole of the left kidney; and lateral, posterior, and superior to the tail of the pancreas.³ Familiarity with CT features of accessory spleens is helpful for the diagnosis of accessory spleens.³⁻⁵ In this patient, the mass mimicked a tumour arising in abdomen adjacent to the colon, pancreas, kidney and spleen on CT scan.

Ectopic splenic tissue may arise from auto-transplantation of splenic cells within the peritoneal cavity resulting from traumatic disruption of the splenic capsule.^{6,7} It is called splenosis. The nodules are more numerous and widespread, and often occur in locations inconsistent with accessory spleens.^{6,7} This patient had neither historic nor anatomic features of splenosis.

Accessory spleens are usually asymptomatic, but they might present clinically as an abdominal mass related to complications such as torsion, spontaneous rupture, hemorrhage, and cyst formation.^{2,8} Mendi *et al.*⁹ reported the case of a 12-year-old girl presenting with multiple episodes of left upper-quadrant pain caused by torsion of an accessory spleen. They concluded that torsion of an accessory spleen is rare but can be a cause of an acute abdomen, particularly with findings of an abdominal mass.

To conclude, accessory spleen, despite being

uncommon, should be considered the differential diagnosis of an enlarged mass in the left upper quadrant.

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