

A splenic pseudotumor: An accessory spleen

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We encountered a case of splenic pseudotumor. It contained a cystic portion, and the solid portion of the mass showed much higher vascularity than the proper spleen on dynamic CT. An accessory spleen was considered most likely, but the differential diagnosis still included malignant lymphoma and metastatic tumor. The diagnosis was obtained by technetium-99m Sn colloid scintigraphy.

Key words: accessory spleen, splenic pseudotumor

INTRODUCTION

TYPICAL ACCESSORY SPLEENS show quite similar imaging characteristics to the proper spleen. In the present case, however, the vascularity of the mass was quite different. Therefore we needed further examinations to diagnose the accessory spleen.

CASE REPORT

A 65-year-old man visited our hospital complaining of upper abdominal discomfort. His past history included atrial septal defect, which had been successfully surgically repaired two years earlier. The laboratory data were unremarkable. He underwent gastric fiberoscopy and was diagnosed as having reflux esophagitis. He was treated with cimetidine, and the symptom disappeared. On screening ultrasonography (US), however, a cystic lesion of about 25 mm in diameter was found in the spleen (not shown). For further evaluation, a dynamic computed tomography (CT) was performed, which depicted not only the cystic lesion but also a hypervascular mass of about 50 mm in diameter in the spleen (Fig. 1). The cystic lesion turned out to be a part of the mass. On MRI, the solid portion of the mass showed the same signal intensities and

structure as the apparently normal splenic tissue, and the cystic portion showed homogenous watery signal intensities both on T1 weighted and T2 weighted images (not shown). An accessory spleen was suspected, but the differential diagnosis still included metastatic tumor and malignant lymphoma. To confirm the diagnosis, we performed ^{99m}Tc Sn colloid scintigraphy. There was marked uptake of the nuclide (Fig. 2), and the mass was diagnosed as an accessory spleen. The cystic portion was not histologically diagnosed, and the patient is being followed up as an outpatient by US. There have been no remarkable changes for 24 months.

DISCUSSION

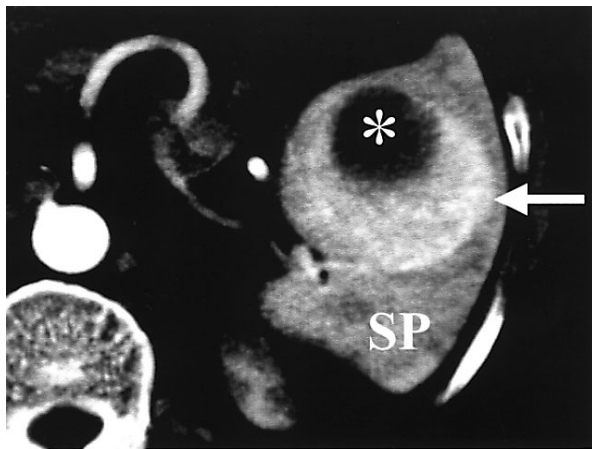
Accessory spleen is a frequently encountered normal variant, which is usually easily diagnosed. Typically, it is a round homogenous mass of 1–2 cm in diameter, located at the splenic hilum.¹ Some tumor-mimicking accessory spleens have been reported, but these were located at uncommon sites such as in the pancreas² or pelvis.³ As long as an accessory spleen is located at its most common site, the splenic hilum, the correct diagnosis is usually readily obtained by US and/or CT.

In the present case, however, a splenic tumor was on the list of diagnosis although the mass was located at the splenic hilum for the following reasons. First, the mass apparently was located within the spleen: the mass was mostly surrounded by the proper spleen. Second, the mass was about 5 cm in diameter, larger than typical accessory spleens.⁴ Third, the mass showed quite different, that is, much higher vascularity compared to the proper spleen.

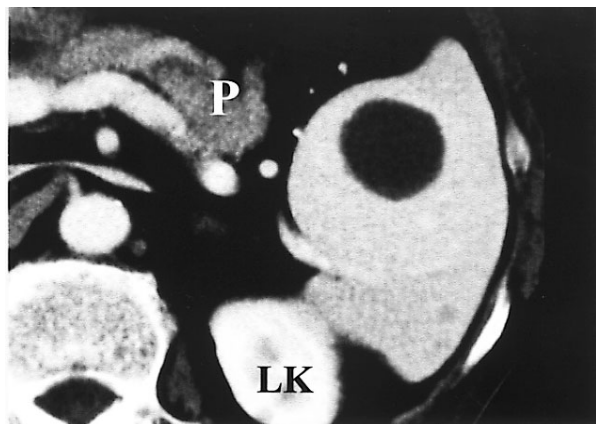
Received November 1, 2002, revision accepted January 8, 2003.

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a



b

Fig. 1 a: Arterial phase dynamic CT obtained 30 seconds after the bolus injection of contrast medium. A hypervascular mass (white arrow) was depicted within the proper spleen (SP). There was a cystic portion (white asterisk) in the mass. b: Delayed phase contrast enhanced CT, 120 seconds after injection. The solid portion of the mass showed quite similar density and structure to the proper spleen. P: Pancreas, LK: Left kidney.

The cause of this was unknown, but probably because the mass compressed the splenic vessels and the arterial blood flow toward the proper spleen was somewhat reduced. Fourth, the mass included a cystic lesion. These features were quite uncharacteristic accessory spleen.

The diagnosis of accessory spleen was obtained by ^{99m}Tc Sn colloid scintigraphy, which is highly sensitive and specific for splenic and hepatic tissue. Though the scintigraphic study was not able to differentiate an accessory spleen from a protrusion of the proper spleen, we believe the mass should be diagnosed as an accessory spleen because there was a clear border between the mass and proper spleen, and the vascularity of the mass was quite different from that of the proper spleen (Fig. 1). Angiography would provide definite evidence on this point, but was not performed because it would not benefit the patient.

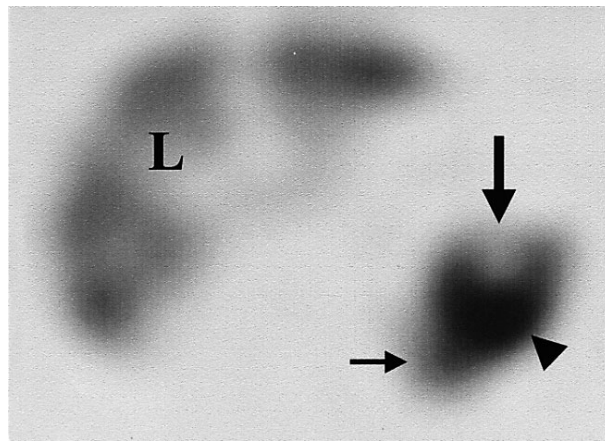


Fig. 2 An axial single photon emission computed tomography (SPECT) using ^{99m}Tc Sn colloid. There was a remarkable uptake at the mass in question (arrowhead). The uptake was stronger than that of the proper spleen (arrow), probably reflecting the difference of vascularity between them. The accumulation defect (thick arrow) reflected the cystic portion. Liver uptake (L) was also seen.

Though the cystic portion in the mass was not histologically diagnosed, we presently have no intention to perform further examination on this. Generally, differential diagnosis of a cystic lesion in the spleen includes epidermoid cyst, hematoma, posttraumatic cyst, cystic degeneration of infarct, peliosis, abscess, parasitic cysts, pancreatic pseudocyst, hemangioma, and lymphangioma.⁵ Among these, only epidermoid cyst was likely taking into account the imaging findings, patient's medical history and present illness. Neither accessory spleen nor epidermoid cyst requires urgent treatment, and therefore we are just following up the patient by US.

In summary, accessory spleen can mimic splenic tumor. Accessory spleen should be on the list of differential diagnosis of a splenic mass, and ^{99m}Tc Sn colloid scintigraphy should be considered.

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