Case

A 65-year-old woman with a history of chronic hepatitis was referred for the further evaluation of left adrenal mass detected on outside CT scan. She was asymptomatic. On contrast-enhanced CT, which was performed at an outside institution, about 4.0x3.5cm sized lobulated homogeneous mass was noted in the left adrenal region (Fig 1).

Gray-scale sonography showed an anechoic round mass in the left suprarenal region and multiple collateral vessels near the splenic hilum (Fig 2A & B). Color Doppler US revealed swirling, multicolored flow patterns within the left suprarenal lesion (Fig 2C). Power Doppler sonography also revealed complete color filling of the mass (Fig 2D). The turbulence was confirmed with pulsed Doppler sonography of the mass. These findings were compatible with left adrenal pseudotumor due to varices.

Dynamic CT and MRI were performed to confirm the diagnosis. Non-enhanced CT showed a lobulated soft tissue density mass in the left adrenal area. The mass was well enhanced as the same degree with that of splenic vein and collateral vessels in the splenic hilum on both early arterial and late venous phases (Fig 3). On MRI, a well-marginated, lobulated mass of low signal intensity was noted in the left suprarenal area on T1 and T2 weighted images. Following gadolinium enhancement, the mass was homogeneously enhanced, which was connected with collateral vessels of splenic hilum (Fig 4). Left adrenal gland was normal on coronal image.

Comments

Adrenal pseudotumors due to variety of causes have been reported, including fluid-filled gastric fundus, prominent splenic lobulations and accessory spleens, tortuous splenic vessels, pancreatic masses, and prominent diaphragmatic crura. Periadrenal and adrenal porto-systemic collaterals also may simulate adrenal mass. The anatomic basis for variceal adrenal pseudotumors is the left inferior phrenic vein, which passes immediately anterior to the left adrenal gland and which serves as a collateral pathway from splenic to left renal vein in portal hypertension. In previous studies, most variceal lesions mimicking adrenal mass were diagnosed with enhanced CT scan or MRI. However, Color and power Doppler US are useful diagnostic methods for the varices mimicking adrenal mass.

References