A case of large liver focal nodular hyperplasia in children: Imaging characterization

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Primary hepatic tumors in children represent a heterogeneous group of neoplasms of which malignant tumors are the most common, accounting for 60% of primary liver tumors. The benign hepatic lesions can be classified as cystic or solid lesions and the latter can be divided further according to their epithelial or mesenchymal origin. Vascular tumors (e.g., hemangioendothelioma) are the most common benign tumors followed by mesenchymal hamartoma and the rare hepatic adenoma (HA) and focal nodular hyperplasia (FNH), which are tumors of epithelial origin. The majority of FNH lesions are asymptomatic. Symptoms in children related to size of FNH include abdominal pain, abdominal mass, hepatomegaly and liver function test abnormalities. It is essential to differentiate FNH from liver adenoma because the latter has a different natural evolution; namely, an increased risk of hemorrhage and rupture and a well-documented malignant potential. The appearance of HA, however, can be highly variable and unfortunately, in many situations, HA and FNH have similar imaging appearances. Gadoxetic acid on delayed hepatobiliary phase appears to improve the specificity for characterization and differentiation of these two lesions. FNHs are usually iso- or hyperintense relative to the liver parenchyma but rarely hypointense like hepatic adenoma. This is presumably because of the presence of functioning hepatocytes and focal abnormal biliary excretion. Herein, we report the case of a 9-year-old child (female) with a huge FNH (9.8 cm in size).

Biography
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