

상염색체 우성 다낭신 환자에서 이중 조영 자기공명영상으로 진단한 간세포암

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Detection of Hepatocellular Carcinoma by Dual Contrast Magnetic Resonance Imaging in a Patient with Autosomal Dominant Polycystic Kidney Disease

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Hepatitis B virus (HBV) is a common cause of hepatocellular carcinoma (HCC) in Korea. Regular screening for HCC with imaging modality in addition to tumor marker study is recommended for high risk patients. However, it is difficult to detect HCC in patients with autosomal dominant polycystic kidney disease (ADPKD) because of multiple liver cysts. Here, we present a case of HBV-associated HCC in a patient with ADPKD and polycystic liver, diagnosed by dual contrast magnetic resonance imaging (MRI).

A 54 year-old man with ADPKD and chronic hepatitis B was referred to Nephrology department because of multiple metastatic nodules in both lungs. Nine months before his presentation, he was suspected of having HCC because the α -fetoprotein (α FP) was increased to 158 ng/ml. At that time, abdominal dynamic CT and whole body FDG-PET scan were performed to detect HCC. However, both imaging modalities failed to localize cancer due to numerous liver cysts. Since then, abdominal CT scan was repeated but revealed no definite lesion in his liver.

On examination, abdominal distention and hepatomegaly was prominent. His α FP was more than 30,000 ng/mL. We decided to perform both abdominal CT scan and dual contrast liver MRI to localize HCC. The focal enhanced nodule in the arterial phase was found on the CT scan image. We also found focal enhancement on S4 and S8 on dual contrast liver MRI respiratory-triggered T2-weighted turbo spin echo image. In addition, whole body FDG PET revealed multiple metastases in lung and bone. Unfortunately, HCC progressed despite of systemic chemotherapy and he expired due to hepatic failure after 3 months of therapy.

Recently, the combination of gadolinium and superparamagnetic iron oxide (SPIO) - enhanced imaging in 'dual contrast' MRI has been used for the detection of liver mass. Our case suggests that the dual contrast liver MRI can be used for the localization of liver mass in high risk patients with polycystic liver disease when the conventional CT scan failed to detect HCC.

Key Words : 다낭성신증, 간세포암, MRI
Dual contrast MRI, ADPKD, HCC