

**Focal nodular hyperplasia: Triple-contrast enhanced MR imaging using gadolinium chelates, mangafodipir trisodium, and ferumoxides****Joo-Hee Kim<sup>1</sup> · Myeong-Jin Kim<sup>1</sup> · Young Nyun Park<sup>2</sup> · Kyung Sik Kim<sup>3</sup> ·  
Jong Tae Lee<sup>1</sup> · Hyung Sik Yoo<sup>1</sup>**<sup>1</sup>Diagnostic Radiology, <sup>2</sup>Pathology, <sup>3</sup>Surgery,  
Yonsei University College of Medicine

We present two cases of surgically proven focal nodular hyperplasia who underwent triple contrast-enhanced MR imaging using gadolinium chelates, mangafodipir trisodium, and ferumoxides. After the unenhanced MR images were obtained, dynamic gadolinium-enhanced T1-weighted images were performed, then mangafodipir enhanced and ferumoxides-enhanced images were obtained. In one case, the mass was isointense on both T1- and T2-weighted images on the unenhanced MR images, iso and slightly hyperintense on ferumoxides-enhanced FSE and GRE images, strongly hyperintense on the mangafodipir enhanced and gadolinium enhanced arterial phase images. In the other case, the mass was isointense on T2-weighted and hypointense on T1-weighted images, isointense on ferumoxides-enhanced images, and hyperintense on mangafodipir enhanced and gadolinium enhanced arterial phase images. Triple contrast enhanced MR images were useful to correctly diagnose these two cases preoperatively.