

Contrast Enhanced Magnetic Resonance Angiography in Rats with Gadobenate Dimeglumine at 3T

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Abstract : This study aimed to investigate the magnetic resonance (MR) signal enhancement ratio (ER) of contrast-enhanced MR angiography (CE-MRA) in normal rats with gadobenate dimeglumine (Gd-BOPTA) using a clinical 3T scanner and an extremity coil. The relaxivities of Gd-BOPTA with saline only and with 4.5 % human serum albumin (HSA) were also measured. Compared with Gadolinium diethylenetriamine pentaacetic acid (Gd-DTPA), Gd-BOPTA had higher relaxivities. The maximum ER of Aorta (ERa), kidney, liver and muscle with Gd-BOPTA were higher than those with Gd-DTPA. The maximum ERa appeared at 1.2 min and decayed to half at 10 min after Gd-BOPTA injection. This information is helpful for the design of CE-MRA study of rats.

Keywords : contrast-enhanced magnetic resonance angiography, Gd-BOPTA, Gd-DTPA, rat

Conference Title : ICBPE 2015 : International Conference on Biomedical and Pharmaceutical Engineering

Conference Location : San Francisco, United States

Conference Dates : June 07-08, 2015