

Table S1. List of parameters commonly acquired by Gd-EOB-DTPA MRI to evaluate liver functionality.

VARIABLE	HOW TO CALCULATE	AIM
<i>SIGNAL INTENSITY (SI)</i>	$SI = \sqrt{S^2 + C_n^2}$ <p>S is the true signal intensity (in the absence of noise) from tissue, and C_n is a noise-related constant.</p>	SI is the measured signal intensity when averaged over time or a region of interest (ROI).
<i>APPARENT DIFFUSION COEFFICIENT (ADC)</i>	$ADC = -\ln(S/S_0)/b$ <p>S₀ is the signal intensity of no diffusion gradients and b is the b value of 0, 100, 300, 700, and 1000 s/mm² along the three orthogonal main directions of the motion probing gradients.</p>	Diffusion of water molecules in a particular ROI
<i>CONTRAST ENHANCEMENT RATIO (CER_{HBP/TP})</i>	$CER_{HBP/TP} = [(SI_{HBP} - SI_{Pre}) / (SI_{TP} - SI_{Pre})]$	The enhancement ratio between: SI in HBP contrast phase (30' post-contrast), the transitional phase (TP, 3' post-contrast), and precontrast T1 weighted images
<i>RELATIVE ENHANCEMENT (RE_{HBP})</i>	$Re_{hbp} = (SI_{HBP} - SI_{Pre}) / SI_{Pre}$	The contrast enhancement in terms of Signal Intensity (SI) between the HBP-contrast phase and the PRE-contrast.
<i>REDUCTION RATE OF RELAXATION TIME</i>	$\text{Reduction rate (\%)} = [(T1_{pre} - T1_{post}) / T1_{pre}] \times 100$	Relaxation time of the liver on T1 images before and after contrast administration
<i>LIVER TO SPLEEN RATIO (LSR)</i>	$LSR = SI_{20min}(\text{liver}) / SI_{20min}(\text{spleen})$	The ratio between SI of the liver and the spleen at 20' after contrast injection
<i>LIVER TO MUSCLE RATIO (LMR)</i>	$LMR = SI_{20min}(\text{liver}) / SI_{20min}(\text{muscle})$	The ratio between SI of the liver and the muscle at 20' after contrast injection
<i>HEPATOCELLULAR UPTAKE INDEX (HUI)</i>	$HUI = \text{Liver volume} \times (SI_{20min}(\text{liver}) / SI_{20min}(\text{spleen}) - 1)$	Amount of contrast uptake into hepatocytes measured on enhanced sequences.
<i>HEPATIC UPTAKE RATE (K_{HEP})</i>	$K_{hep} = 0.39/20 \times [(1/T1_{20min}(\text{liver}) - 1/T1_{pre}(\text{liver})) / (1/T1_{20min}(\text{spleen}) - 1/T1_{pre}(\text{spleen})) - 0.77]$	Calculated from pharmacokinetic models of the liver and spleen.