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Cell therapy in myocardial infarction: emphasis on the role of MRI

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The layout of Table 2 was incorrect. The correct version is given here.

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Table 2 Comprehensive use of cardiac MRI-MRS*Cine MRI using SSFP technique*

A/ global function	B/ regional function	C/ regional morphology
- end-diastolic volume	- wall thickening	- wall thickness
- end-systolic volume	- wall motion	- wall curvatures
- ejection fraction	- regional ejection fraction	
- stroke volume/cardiac output		
- myocardial mass		

MRI myocardial tagging technique

- wall deformation in terms of 2D/3D strains and shear strains (e.g., torsion)
- fiber/cross-fiber shortening
- regional ejection fraction

Velocity-encoded MRI – Phase-contrast MRI

- diastolic function
- myocardial wall velocities
- associated valvular pathology (e.g., mitral valve regurgitation)

T2-weighted short-tau-inversion-recovery spin-echo MRI

- myocardial edema (area at risk)
- intramyocardial bleeding

First-pass perfusion MRI (stress-rest)

- myocardial perfusion reserve (MPR)
- quantitative myocardial blood flow calculation (dual-bolus approach)

Contrast-enhanced inversion-recovery (CE-IR) MRI

- microvascular obstruction (MVO)
- infarct location
- infarct volume
- infarct transmural extent
- infarct surface/circumferential – longitudinal infarct length
- (endocavitary thrombus formation)
- (associated inflammatory pericarditis)

³¹P MRS

- phosphocreatine/ATP ratio