

Extended abstract

Magnetic resonance imaging in ischemic heart disease

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The cardiovascular applications of magnetic resonance imaging (MRI) techniques in ischaemic heart disease (IHD) have increased considerably in recent years. MRI represents a non-invasive technique providing the assessment of function, perfusion and tissue characterization of the heart muscle. Cine MRI for assessing of cardiac volumes is considered as a gold standard compared with other cardiac imaging modalities. Regional myocardial function including wall thickening, evaluation and measures of myocardial strain may be performed. Myocardial perfusion reserve measured by MRI high diagnostic accuracy for detection of flow - limiting lesions. Myocardial oedema in acute myocardial infarction can be visualized as a bright signal on T2-weighted images, defining "myocardium at risk". Late gadolinium enhancement (LGE) images are T1-weighted inversion recovery sequences acquired about 10 min after iv. administration of gadolinium can clearly delineate subendocardial infarction and highlights the region of scar or fibrosis. The only clinical indication that is considered appropriate for coronary MRA is the evaluation of patients with suspected coronary anomalies. With further improvements in standardization of appropriate study protocols, development of newer techniques, cardiac MRI has become a routine tool for the evaluation and detection of IHD.

KEYWORDS: magnetic resonance imaging, myocardial perfusion, late gadolinium enhancement.

Literature

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