



MRI of Kidneys—Current clinical applications & future prospects

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Abstract:

Renal function is characterized by different physiologic aspects, including perfusion, glomerular filtration, interstitial diffusion and tissue oxygenation. MRI shows great promise in assessing these renal tissue characteristics noninvasively. Over the past decade, application of functional MRI extended beyond detection of cerebral activity, and techniques for abdominal functional MRI evolved. Assessment of renal perfusion, glomerular filtration, interstitial diffusion, and parenchymal oxygenation turned this modality into an essential research and potentially diagnostic tool. Variations in many renal physiologic markers can be detected using functional MRI before morphologic changes

become evident in anatomic magnetic resonance images. Moreover, the framework of functional MRI opened a window of opportunity to develop novel pathophysiologic markers.

In our discussion we will focus on the clinical applications of Renal Functional MRI Tools like DCE MRI, DWI MRI, BOLD MRI, ASL MRI, DTI MRI, MR Urography and MR Renal Angiography.

The trajectory of functional renal imaging over the past decade and the growth in interest in this field promise a bright future ahead. Without question, research advances in this field will benefit substantial patient populations with high impact.

Biography:

Dr. Waseem Sajjad Graduated from King Edward Medical University, Lahore Pakistan and done MD Diagnostic Radiology training from KEMU affiliated Mayo Hospital, Lahore which is a 3000 bedded University Hospital. He has a special interest in Nephro-Radiology and novel clinical applications of MRI.

Recent Publications:

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