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**강연제목:** 뇌졸중 MRI 의 현재와 미래 (The Present and Future of MRI application for Stroke Patients)

### **Abstract:**

Along with the remarkable advancements in brain magnetic resonance imaging (MRI) techniques, MRI has been actively applied in the clinical field. In Korea, MRI scans were most frequently used for stroke patients among neurological disorders, with approximately 13.6 trillion won spent annually on these patients in 2019. Specific MRI sequences for stroke patients include diffusion-weighted imaging (DWI) for diagnosing acute ischemic stroke, gradient-echo (GRE) or susceptibility-weighted imaging (SWI) for hemorrhagic stroke, and MR perfusion imaging for evaluating brain tissue perfusion. Novel MRI techniques have been studied to enhance patient selection for treatment, diagnose the etiology of cerebrovascular diseases, and predict the prognosis of stroke patients. Despite the significant advancements in technology, longer scanning times, greater sensitivity to artifacts, and higher examination costs limit its widespread use, sharing its role with CT techniques. Future investigations should focus on multiple directions, including hardware improvements to speed up acquisition and reduce costs, as well as software enhancements to improve outcome predictability for personalized medicine.

### **Brief Biosketch**

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