

Role of Magnetic Resonance Imaging and Magnetic Resonance Angiography in Patients with Hemifacial Spasm

E K Tan,**MBBS, MRCP (UK)*, L L Chan,***MBBS, FRCR (UK)*, S H Lim,****FAMS, M Med (Int Med), MRCP (UK)*,
W E H Lim,*****FAMS, MBBS, FRCR (UK)*, J B K Khoo,*****FAMS, MBBS, FRCR (UK)*, K P Tan,†*FAMS, FRCR (UK), FRCPE*

Abstract

Vascular compression of the facial nerve is a well recognized cause of hemifacial spasm (HFS). In this study, we described the magnetic resonance imaging (MRI) and three-dimensional magnetic resonance angiography (MRA) techniques used and findings in 34 patients with hemifacial spasm. A vascular abnormality, defined as a vessel seen in close proximity, touching or compressing the facial nerve, was identified in 22 of the 25 patients (88%) who had both MRI and MRA studies. Vessels identified were anterior inferior cerebellar artery (59.2%), posterior inferior cerebellar artery (13.6%), vertebral artery (18.2%) and basilar artery (4.5%). All vascular abnormalities were ipsilateral to the side of the HFS. Only 3 of the 12 controls (25%) had a vascular abnormality in both MRI and MRA studies. One of the 9 HFS patients (11.1%) who had MRI only had an ipsilateral vascular abnormality. There is a role for combined MRI and MRA studies in the non-invasive evaluation of patients with HFS.

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* Senior Registrar

*** Senior Consultant

Department of Neurology

** Registrar

**** Consultant

† Head and Senior Consultant

Department of Diagnostic Radiology

Singapore General Hospital

Address for Reprints: Dr Lim Shih Hui, Department of Neurology, Singapore General Hospital, 1 Hospital Drive, Singapore 169608.