Title	Moyamoya disease: 14-year experience in a single institution in Hong Kong
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Title:

Moyamoya disease – 14-year experience in a single institution in Hong Kong

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Abstract:

Objective

To review the presentation and treatment outcome after intervention for patients with Moyamoya disease in the past 14 years.

Methods

All 43 hospitalized patients with Moyamoya disease admitted from 2001 to 2014 in our centre were included in this retrospective study. Disease presentation, initial radiological findings, operative details, clinical and imaging follow-up data were reviewed.

Results

Of all 43 patients (16 male, 27 female), 12 (28%) presented with intracerebral haemorrhages, 26 (60%) presented with ischemic symptoms, and 5 with chronic headache or seizure. Disease involvement of middle cerebral artery (MCA) and internal carotid artery (ICA) was present in 28 (65%) and 16 (37%) patients, respectively; less common involvement of anterior and posterior cerebral arteries was present in 8 and 3 patients, respectively. We performed superficial temporal artery (STA) to MCA bypass for 10 patients and synangiosis for 14 patients. In the pediatric age group (n=10), 8 were treated with synangiosis and all remained symptom-free or having no neurological deterioration for a mean of 47.3 months upon last follow up. In the adult group (n=33), all patients receiving synangiosis (n=6) remained symptom-free or having no neurological deterioration for 80.3 months and 90% of patients receiving STA-MCA bypass (n=10) achieved this for 17.2 months. Objective measurements on CT perfusion scans and angiograms also demonstrated improvements in patients undergoing both interventions. Complications were uncommon, with STA-MCA bypass complicated by post-operative intracerebral hemorrhage in 1 patient.

Conclusion

Good long-term outcome may be achieved by revascularization surgery in patients with Moyamoya disease, which predominantly affects MCA and ICA and usually presents with cerebral ischemia.