Background and Aims To describe the clinical features and outcomes of patients with moyamoya disease (MMD) who received surgical or medical treatment at a single institute in Taiwan.

Methods From August 2004 to September 2010, medical charts of patients with MMD (ICD-9 code: 437.5) from a medical institute in Taiwan were reviewed. Demographic and clinical characteristics, cerebral imaging files and follow-up information, and outcome were analyzed.

Results There were total 46 patients with MMD enrolled in this study. Male versus female ratio was 21 versus 25 (1:1.2). Ages ranged from 1 to 84 year-old with the peak incidence in the 31-40 year age group (12 cases). The incidence of cerebral ischemic infarction was 75.0% (6/8) in the pediatric group, and 60.5% (23/38) in adult group. Symptoms, included paralysis (76.1%; 35/46), consciousness change (34.8%; 16/46), headache and 26.3% (10/38) in adult group. The incidence of cerebral ischemic infarction was 75.0% (6/8) in the pediatric group, and 60.5% (23/38) in adult group; haemorrhagic stroke was 1.3% (1/8) in pediatric group and 26.3% (10/38) in adult group. The incidence of cerebral ischemic infarction was 75.0% (6/8) in the pediatric group, and 60.5% (23/38) in adult group; haemorrhagic stroke was 1.3% (1/8) in pediatric group and 26.3% (10/38) in adult group.

Conclusions MMD is commonly found in the Asian area, including Japan, Korea and Taiwan. However, the outcomes of patients with MMD are unpredictable. In this study, we found that the severity of MMD might be correlated with the scores of modified Suzuki’s grading system. Therefore, the more the scores patients with MMD acquire, the higher risks of infarction will possibly occur in them.