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| **Title:**  Treatments in middle cerebral artery stenosis: a retrospective study  **Authors:**  YUEN Pak To1,LEUNG Hiu Ming2, FOK Kam Fuk3  **Institution(s):**  Department of Neurosurgery, Queen Elizabeth Hospital, Hong Kong.  Department of Neurosurgery, Tuen Mun Hospital, Hong Kong.  **Abstract:**  ***Objective*:**  Middle cerebral artery (MCA) stenosis is an important cause of stroke, which often leads to poor neurological outcome and mortality. Treatment options for medically refractory cases include surgical bypass and endovascular stenting. This study aims at reviewing the treatment outcome of these two modalities.  ***Method:***  This is a retrospective review of 15 patients with MCA stenosis in Queen Elizabeth Hospital and Tuen Mun Hospital receiving surgical bypass or stenting from 2011 to 2021. Information regarding patients’ demographics, radiological features like location of stenosis and perfusion study, clinical outcomes are collected. Clinical outcomes in terms of modified Rankin Scale (mRS), cognitive function, stroke rate, hemorrhage rate & death are collected. Stent and bypass graft patency rate are also analyzed.  ***Result:***  There were 4 cases of MCA stenting and 11 cases of bypass. Preliminary results revealed low perioperative complication rate. There were 0 case of stroke or hemorrhage within 30 days of intervention in the both groups. Perioperative mortality was 0 in both groups. No recurrent stroke was noted in both stenting and bypass patients. Both stent and bypass graft patency rates reached 100%. Perfusion study showed significant improvement of cerebral vascular reserve in bypass group.  ***Conclusion:***  Both bypass and stenting can achieve good clinical outcome and prevent recurrent stroke in carefully selected patients. |