

SS4.3

Recent Advances in Acute Ischaemic Stroke Management

09:00 Theatre 2

Mechanical Thrombectomy in Acute Ischaemic Stroke – Hong Kong and Shenzhen Experience*Ho W**Department of Neurosurgery, Queen Mary Hospital, Hong Kong*

Ischaemic stroke is a major cause of morbidity in Hong Kong, often affecting the young adult population. While intravenous tissue plasminogen activator (IV tPA) is proven effective in the treatment of acute stroke, only 8% of patients with major cerebral vessel occlusions will benefit from it.

Mechanical thrombectomy involves locating the site of major cerebral artery occlusion by computed tomography angiography or digital subtraction angiography, followed by direct delivery of aspiration device or clot retrieval device to the site of occlusion. Because of the mechanical nature of this treatment, the occluded vessel can be recannulised in a matter of minutes. This is in contrast to tPA given locally or systemically which take hours to gradually dissolve the blood clot.

In 2015, there were five randomised control trials demonstrating the benefit of mechanical thrombectomy in patients with large vessel occlusion strokes compared to medical therapy alone. Nowadays endovascular treatment has become the standard of care in ischaemic stroke involving large vessels.

At Queen Mary Hospital, we started mechanical thrombectomy from 2009 and provided regular 24-hour mechanical thrombectomy service since October 2014. We adopted a team approach consisting of neurologist, neuro-interventional radiologist and neurosurgeon. So far we have treated 35 patients with reperfusion rate of 82% and good clinical outcomes of modified rankin score of 0-2 in 35% of patients.

At The University of Hong Kong, Shenzhen Hospital we also started regular 24-hour mechanical thrombectomy in October 2014. 16 patients with major vessel occlusion were treated by mechanical thrombectomy so far. A reperfusion rate of 75% and good clinical outcomes in 38% of patients were achieved.

The medical system, doctor's attitude, culture and patient's expectations between Hong Kong and Shenzhen are vastly different. There are advantages and shortcomings in each system. By getting involved in both systems, we hope to work out an efficient and cost effective way to further benefit our patients.