

4<sup>th</sup> International Conference on

# Neurodegenerative Disorders and Stroke

July 05-06, 2017 Frankfurt, Germany



## Mohammad Nazrul Hossain

*Jalalabad Ragib-Rabeya Medical College, Bangladesh*

### Minimally invasive stroke surgery with Urokinase instil can be a useful procedure in managing spontaneous intracerebral haematoma: A cross-sectional evidence from Bangladesh

**Introduction:** Spontaneous intracerebral haematoma (SICH) is one of the most annihilating kinds of cerebrovascular disease. Studies found that minimally invasive stroke surgery (MISS) using Urokinase i.e. blood clot removal after liquefaction can be a beneficial procedure for managing ICH. This study attempted to investigate the outcome of SICS on a large number of participants who were undergone through the MISS with Urokinase instil.

**Methods:** A hospital based cross-sectional study was conducted in a tertiary level hospital of Bangladesh between 1 July 2014 and 30 January 2017. Eligibility criteria: age  $\geq 30$  years, spontaneous ICH, Glasgow coma score (GCS)  $> 5$ , ICH volume  $> 10-80$  cm<sup>3</sup>, diameter  $> 3$  cm and presented in hospital within 72 hours of SICH attack. Data were collected from face to face interview and by extracting the case recording form. Patients were followed up over the 30 days to notice complication. During the MISS, a manually placed catheter was used to instil Urokinase to liquefy the clot and drain in 6-hour interval for all patients. GCS and ICH volume were assessed before the operation and at 3rd postoperative period. The outcome of this study was determined according to the 'Glasgow Outcome Score'.

**Results:** According to CT scan, the average volume of intracerebral haematoma was 41.43 ml and mostly on left sided (51%). Concerning the location of hematoma, 583 (76%) were in basal ganglia and 61% featured with ventricular extension. Catheter was placed in the centre of haematoma in 93.3% patients. Patients received 5.7 doses of Urokinase and most (96%) of the operative procedures were uneventful. On 3rd postoperative period, the average haematoma volume was decreased with each dose of Urokinase varied from 2 to 15 ml for 98% of patients ( $P < 0.05$ ). Moreover, GCS and motor strength of the patients gradually increased which was statistically significant. Patients with ventricular extension, more than 40ml of haematoma volume, basal ganglia ICH, delay to introduce intervention ( $> 48$  hours), low initial GCS level and presence of other co-morbidities (diabetes and hypertension) were associated with mortality ( $P < 0.05$ ).

### Biography

Mohammad Nazrul Hossain, passed MBBS from Sir Salimullah Medical College, Dhaka, Bangladesh in 2000. He got his fellowship in Neurosurgery from Bangladesh College of Physician and Surgeons (BCPS) in 2012. He was the first fellow in his subject from BCPS. His study was acknowledged by the BCPS and published in their journal. After successful completion of his fellowship he joined and worked in a world renowned chain hospital "APOLLO", Dhaka, Bangladesh as neurosurgeon. During his neurosurgical career he worked with famous neurosurgeons of both national and international level. He joined "Jalalabad Ragib-Rabeya Medical College and Hospital" from Apollo in 2013 and established a fully new Neurosurgery department and serving the people of this area with their satisfaction.

[drnmh2003@gmail.com](mailto:drnmh2003@gmail.com)