

## TIME OF INTERVENTION IN CONTRIBUTING TO OUTCOME OF BRACHIAL PLEXUS INJURY: AN EIGHT YEARS EPIDEMIOLOGY OUTCOME STUDY

Tan Yin Ying<sup>1</sup>

<sup>1</sup>University Malaya

**Introduction:** To identify and analyse the correlation between time of intervention and outcome of neurotisation procedure for elbow flexion. This study also encompasses the epidemiology of brachial plexus injuries.

**Methodology:** A single centre, retrospective study with a minimum 12-months follow-up after surgery. All patients who presented and underwent neurotisation surgery for traumatic brachial plexus injury from 1st January 2010 to 31st December 2017 were identified. The timing of surgery and motor outcome were evaluated. Patients were categorised into 3 delayed groups (0-6, 6-12 and >12 months). The motor outcome was assessed using the Medical Research Council (MRC) muscle grade and the quality of the outcome was categorised as poor, fair and good.

**Discussion:** A total of 68 patients were included in this study. The mean age was 33.5 years, the mean delayed in surgery was 6.6 months and the average post-surgery follow up was 37.5 months. At 2-years follow up, elbow neurotisation procedures performed within 6-months showed 76.2% of fair to good outcome (M>3) while surgery done between 6 to 12-months showed only 33.3% fair to good outcome. None of the patients had good outcome when there was a delay in surgery of more than 1-year. Intraplexal neurotisation showed a significantly good outcome.

**Conclusion:** Delay in surgery after traumatic brachial plexus injury may adversely affect the functional outcome.