

## MALAYSIA EPIDEMIOLOGICAL STUDY OF TRAUMATIC BRACHIAL PLEXUS INJURY

Wan Muhammad 'Ali Wan Jalaludin<sup>1</sup>, Rashdeen Fazwi Muhammad Nawawi<sup>2</sup>, Syahril Rizal Arsad<sup>1</sup>

<sup>1</sup>Hospital Selayang, <sup>2</sup>Hospital Kuala Lumpur

**Introduction:** Epidemiological Studies are the corner stone of healthcare management as it elucidates the health care providers with the necessary data to plan, anticipate and allocate health care resources for the treatment of patients. However, there is minimal data worldwide that looks at the epidemiological aspect of this devastating injury more so Malaysian data.

**Methodology:** Data regarding age, sex, affected side, mode of injury, distribution of paralysis, associated injuries, pain at the time of presentation and the index procedure they underwent were collected from 67 patients over a period of three years (1st January 2017 till the 31st of December 2019). Additional data like the type of vehicle associated during the accident, speed of the vehicle during the accident, employment status and integration into the family were also collected.

**Results:** The main bulk of the patients involved were young male (less than 30 years old, 74.6% and male, 94%). Road traffic accidents accounted for 98.5% of patients and of the road traffic accidents involved motorcyclist. Brachial plexus injury formed a part of polytrauma in 85% of this study group and only 15% had isolated brachial plexus injury. The pattern of Upper brachial plexus injury (55.4%) is more than pan brachial plexus injury (38.4%) and the least number was lower brachial plexus injury (6.2%).

**Conclusion:** The pattern of Brachial Plexus Injury in Malaysia is surprisingly different and unique. A more serious and alarming concern is the number of injuries involving the paediatric age group. The pattern of injury is also dissimilar to other developing and developed countries. Associated injuries like fractures, vascular injuries and head injuries are much more probably due to higher number and velocity of the motorcyclist as compared to the developed countries. This study demonstrates the need for further multi-centre study to look for a Malaysian epidemiology in relations to BPI.