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Characteristics of craniofacial fractures associated with traumatic brain injury: A single centre study

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Introduction: Craniofacial trauma can involve both facial skeleton and cranium which carry a significant potential for mortality and morbidity. This study evaluates the characteristics of patients with Traumatic Brain Injuries (TBI) associated with Craniofacial Fractures (CFF).

Materials & Methods: This is a retrospective study performed at Hospital Queen Elizabeth, Sabah. A total of 129 patients' data were reviewed and analyzed from January 2016 until March 2018.

Results: Mean age was 33 years old with a male to female ratio of 7.6:1. Motor Vehicle Accident (MVA) was commonest cause with 78.65 cases followed by fall at 14.2% cases. Out of this number, 67 patients (51.9%) were motorcyclist and about 55.2% of them refused safety helmets. Mild TBI is the commonest diagnosis followed by nasal or ear bleeding secondary to CFF. Frontal bone is commonly involved in combines CFF. According to the location of fractures mid-facial is the commonest with 83.3% cases and followed by upper face at 9.52% cases. This is further divided into maxilla at 30%, orbit at 25% and zygomatic at 22.5% cases. There are 21 patients with associated Le-Fort (LF) injuries of which LF type 2 is the most frequent and strongly associated with MVA involving motorcyclists. There were four mortalities but is due to severe TBI with multiple CFF.

Conclusion: Male motorcyclists are the commonest victim in MVA and this contributes to the majority of CFF. The incidence can be markedly reduced with the utilization of full face helmets and stricter traffic laws.

Biography

Balamurugan Rajendran has garnered experience as a Junior Resident in the field of Neurosurgery in a renowned Neurosurgery and Neuro-spine Department in Kota Kinabalu, Sabah. He has been actively and directly involved in the management of neurosurgery patients and treating patients in a holistic manner. He also has been involved in the managements of patients' requiring intensive care with multidisciplinary approach.

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