

ABSTRACT

HELMET USE ON HEAD INJURY IN MOTORCYCLE ACCIDENTS AT RSUP DR. SARDJITO YOGYAKARTA 2022: A CROSS-SECTIONAL STUDY

Background: Head injuries are one of the leading causes of mortality in Indonesia, most of which result from traffic accidents, particularly motorcycles. The use of helmets is an obligation for motorcyclists to protect their heads while riding, written in UU no. 22 of 2009 concerning Road Traffic and Transportation, Chapter 57 verse (1) and (2). However, many motorcyclists who neglect this regulation due to lack of education and a lack of public trust regarding the influence of helmet use in preventing head injuries while riding motorcycles. Therefore, the effect of helmet use on head injury patterns in motorcycle accidents needs to be investigated and studied further.

Objective: To study the correlation between helmet use and the severity of head injury in motorcycle accidents.

Method: The research design uses observational analytics with a cross-sectional approach. The study took secondary data from January 2022 to December 2022.

Result: From 100 cases of head injury due to motorcycle traffic accident, based on the analysis between helmet use with severity based on GCS, brain morphology, skull fracture morphology, and fatality, results $P > 0$, which means there is no significant association. Meanwhile, analysis between helmet use with type of fracture and sequel, results $P < 0$, which means there is a significant association.

Conclusion: There is not any correlation between helmet use and the severity of head injury in motorcycle accidents. Head injury due to motorcycle accident is dominated by male aged from 18—40 years old, with the position as a rider, in the evening. Among all head injury aspects, in this study, the use of helmet only has significant association and correlation with types of fracture and sequel.

Keywords: head injury pattern, motorcycle accident, helmet use, fatal head injury, non-fatal head injury