機車安全帽型式及非標準使用對頭部傷害之影響

Impact of Helmet Type and Non-Standard Use on Head Injury in Motorcycle Riders

中文摘要

本研究為了解機車使用者不正確的安全帽使用以及各類型安全帽對預防頭部傷害的效果。1996 年 1 月 1 日至 8 月 31 日針對台中市因機車事故至中國醫藥大學附設醫院急診室就醫的騎士，進行個案對照研究。共收集 240 位因機車就醫診斷有頭部傷害的個案組和 280 位無頭部傷害的對照組。條件式邏輯斯迴歸分析分成，模式一，與佩戴全頂連下顎型騎士相比，半頂型與全頂不連下顎型發生頭部傷害的勝算比分別是 2.6、2.9 倍，達統計顯著。將機車維修費作為撞擊嚴重度 納入分析為模式二，佩戴半頂型與全頂不連下顎型的騎士發生頭部傷害的勝算比是全頂連下顎型騎士的 2.3 (95%信賴區間 0.8-6.3)、2.6 倍 (95%信賴區間 1.0-6.6)。安全帽對於機車騎士頭部傷害有保護作用，但是依不同型式而異。與全頂連下顎型安全帽相比，全頂不連下顎型以及半頂型會增加騎士發生頭部傷害的危險。控制撞擊嚴重度後，全頂不連下顎型發生頭部傷害的勝算比則未達統計顯著。騎士對機車的熟晰度、冒險性行為、及碰撞機轉會干擾非標準使用對於頭部傷害的影響，本研究目前無法對非標準使用為頭部傷害的危險因子下結論。

英文摘要

The introduction of the Taiwan Mandatory Helmet Use Law in 1997 led to a dramatic decrease in motorcycle-related fatalities and head injuries among fatally and nonfatally injured riders. A case-control study was conducted to understand the effect of non-standard helmet use and helmet types on head injury. A total of motorcycle-related injured patients occurred over 8-month period from 1st, January to 31st, August 2006 in emergency room of China medical university hospital, 240 subjects with head injury were defined as cases and 283 without head injury as controls. The results of conditional logistic regression was divided into two models. As the results of model 1, compared with full-face helmet, full helmet (OR=2.6, 95% Confidence Interval (CI): 1.1-6.3) and partial-coverage helmet (OR=2.9, 95% CI: 1.2-6.6) increased the odds for a greater level of head injury. When crash severity was controlled in model 2, ORs for full helmet and partial –coverage helmet became 2.3 (95% CI: 0.8-6.3) and 2.6 (95% CI: 1.0-6.6), respectively. Non-standard use of helmet didn’t show significantly increased risk of head injury. The risk of head injury among motorcycle riders was significantly increased by wearing a partial coverage helmet when compared with full-face helmet, but not by full helmet. Unexpectedly, we can’t conclude non-standard helmet use contribute the risk of head injury among

motorcyclists.