Injury Factors and Medical Conditions of Motorcycle Riders were Analyzed by Trauma Database in Taiwan

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Purpose
According to the Taiwan Ministry of Health and Welfare announced in 2015, the accident death for the death of the Taiwanese ranked the fifth, and the average number of years lost in traffic accidents was 25.1 years. However, according to the Taiwan National Police Agency, from 2010 to 2015, the motorcycle of traffic accident in Kaohsiung City, the incidence was 18.7%, higher than the average.

Methods
To analyze the trauma registration database of one level I trauma center in Kaohsiung City, southern Taiwan. The cases were the motorcycle riders taking emergency medical treatment and hospitalization from 2010 to 2015.

Results
There were 5,819 cases. Males were 55.7% and females were 44.3%. The youngest was 11 years old, and the oldest was 98 years old. The mean was 42.7 years old. The way into the hospital by ambulance is 62.5%, by transferred from others is 24.4%. The 1st triage degree is 5.2%, the 2nd is 46.5%, and the 3rd is 46.4%. Occurrence time has two peaks, AM7-10 and PM5-6. Occurrence time is different from weekday and weekend. The top three of the incidence of blunting object are cars (38.7%), motorcycle (27.3%), and loss of control (24.8%). The deadly blunting objects were trucks (4.3%) and pedestrians (2.0%). The injury severity score (ISS) 1-8 score was 54.5%, 9-15 score was 30.2%, more than 16 score was 15.3%. ISS>16 score mortality rate was 27.9%. The 97.5% was discharged and 1.6% was dead. The region of injured body were extremities > head/neck > chest. However, the major death factor was head/neck AIS 4 or 5 score (57.8%). Among the deaths, patients with no helmets were 69.9%, and some with positive alcoholic reactions were 59.1%.

Conclusion
The result shows that wearing helmets and no drunk driving should promote for road safety. For the patients with head injury caused by traffic accidents should be further observed to promote the medical quality.