

The Bicycle-Related Traumatic Situations That Consulted Our Hospital

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Abstract : Some countries such as Canada and Australia have mandatory bicycle helmet laws for all citizens and age groups. As of 2008 Japan has also adopted a helmet law but it is restricted to people 13 years old and under. People over 13 years of age are not required to wear helmets in Japan. Currently, the rate that people 0-13 years old actually wear helmets is low. In 2013 a number of patients came to Saitama University Hospital International Medical Center for treatment due to bicycle-related trauma. The total number of patients was 89 (55 male and 34 female). The average age of the patients was 40.9 years old (eldest; 83 y/o, median; 40 y/o, youngest; 1 y/o with a standard deviation ± 2.8). 54 of these patients (61%) experienced head trauma as well as some experiencing multiple injuries associated with their accident. 13 patients were wearing helmets, 50 patients were not wearing helmets and it is unknown if the remaining 26 patients were wearing helmets. This information was acquired from the patient's medical charts. Only one patient who was wearing a helmet had a severe head injury, and this patient also experienced other multiple injuries. 17 patients who were not wearing helmets had severe head injuries and out of the 17, two had multiple injuries. The mechanism for injury varied. 12 patients were injured in an accident with a vehicle, only one of which was wearing a helmet. This patient also had multiple injuries. Of the other 11 patients, two had multiple injuries. The remaining patient's injuries were caused by other accidents (3; fell over while riding, 2; crashed into an inanimate object, 1; collided with a motorcycle). The latter of which had a severe head injury. All of these patients had light energy accidents and were all over 13 years of age. In Japan it is not mandatory for people over the age of 13 years to wear a bicycle helmet. Research shows that light energy accidents were mostly present in people over the age of 13, to which the law does not require the wearing of helmets. It is important that all people in all age groups be required to wear helmets when operating a bicycle to reduce the rate of light energy severe head injuries.

Keywords : bicycle helmet, head trauma, hospital, traumatic situation

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