CHARACTERISTICS OF HELMETS, DISSATISFACTION WITH THE HELMET AND ACCIDENT RISK: A CASE-CONTROL STUDY

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In road accidents which involve two-wheeled vehicles the helmet plays a fundamental life-saving role. The driver’s perception can be influenced by some features of the helmet, such as noisiness, temperature, ventilation, field of vision and size. Using data collected in the European study COST 357 – PROHELM (Accident Prevention Options with Motorcycle Helmets), we evaluated the relationships between having been involved in an accident and dissatisfaction with the helmet and between the cognitive capacity of the motorcycle riders and the objective features of the helmet. It is a case-control study: riders of motorised two-wheelers who have been involved in accidents (cases) were compared with a sample of riders interviewed as control cases. The variables, collected using standardised procedures in the various countries, concern information about the driver, the vehicle and the helmet, perceptions and use of the helmet and accident circumstances (only for cases). To evaluate the relationships, logistic regressions were carried out. Dissatisfaction with the helmet is complained of by the majority of drivers (about 70%), but evidence of an association with being involved in an accident has not been found. The most common complaints are about noisiness, followed by visor. Complaints do not seem to be associated with the objective features of the helmet. These results provide useful information about helmet comfort and the main causes of dissatisfaction reported by riders. This information should be of value to helmet manufacturers and designers to increase the pleasure of the helmet.