A basic research on development of program for continued driving support and mobility environment adaptation based on the decision to return drivers' licenses due to mild cognitive impairment

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The number of traffic accidents caused by elderly drivers is increasing as a percentage of all accidents resulting in injury or death. In particular, measures have been taken to prevent accidents caused by age-related cognitive decline, such as updating aptitude test methods through amendments to the Road Traffic Act and establishing systems for license surrender. However, for drivers with mild cognitive impairment (MCI), which does not progress to dementia, the relationship between the individual characteristics and driving characteristics of the driver and effective measures based on this relationship have not been established. In this study, we analyzed the stopping behavior of general elderly drivers and MCI drivers when approaching intersections, with the aim of obtaining basic knowledge for building driver rehabilitation programs for elderly drivers to continue driving or surrender their licenses. The results suggested that differences in road traffic conditions and driving speeds due to the presence or absence of traffic lights may have a strong influence on braking distances and stopping behavior at stop lines.