Resuming driving after a brain injury is a delicate question. Indeed, there are currently no reliable and unanimous criteria for the assessment of driving competence. There is a need to have a better understanding of the driving aspects of brain-injured people. Several methods are currently available to assess the impact of brain injuries on daily activities (e.g., the GO-Box, the Brief Assessment of Driving Readiness, the Brief Assessment of Driving Competence, the Clinical Driving Assessment Program, the Ericsson Driving Simulator, the Driving Assessment System). However, these methods only focus on a limited number of driving processes, and they do not provide an overall assessment of driving competence. To overcome this problem, we have developed driving scenarios involving cognitive processes that are often impaired in brain-injured people (e.g., attentional processes, anticipation, planning). Three driving scenarios were created to simulate an urban road, a rural road, and a rural road at night. These scenarios were validated on a sample of ten brain-injured people (severe traumatic brain injury, cerebral vascular accident, or aneurysm rupture); six were tested one year after the injury, and four were tested more than ten years after the injury. They were in a coma for at least 48 hours and had a score of 8 or lower on the Glasgow coma scale (GCS). All participants were experienced drivers before the injury and had driven regularly on all road types. This sample was compared to a control sample of nine participants that was equivalent in terms of age and driving experience. Of the 17 events, five resulted in an accident for many of the brain-injured participants. Brain injured people caused 18 accidents, whereas only one accident was caused by a control participant. The other scenarios helped to identify accident-proned participants whose cognitive deficits induced a mismanagement of critical events (e.g., slow decision-making despite good attentional processes).

Objective.-- The objectives of this study were:
– to establish the prevalence of self reported TBI in a prison population;
– to compare the prevalence of TBI among incarcerated population and the general population;
– to study the links between TBI, epilepsy and incarceration taking into account the age of onset of the TBI.

Methodology.-- A questionnaire was completed by a nurse or a doctor with all the subjects entering the custodial system (on voluntary basis) at Fleury-Mérogis state prison between November 2, 2012 and January 31, 2013.

Keywords: Traumatic brain injury; Prison; Inmates; Brain injury

Results.-- One thousand one hundred and ninety-six questionnaires were collected. Forty-eight of them had to be removed due to a refusal to participate or incomplete information more often because of the language of the detainee. One thousand one hundred and forty-eight questionnaires were analyzed with a population of 934 men, 88 women and 69 juveniles (boys and girls). The overall prevalence of reported history of TBI in this population was 30.6%. The two most common causes of TBI were road accident and fights. Seventeen percent of those who reported a history of TBI are followed by a medical doctor.

Conclusion.-- The preliminary results of this survey should have consequences such as improvement of screening in this population and better follow up.