ASSESSING DRIVING COMPETENCE IN SPINAL CORD INJURY PATIENTS: A RETROSPECTIVE STUDY

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Background and Aims

Spinal cord injury (SCI) is a damage to the spinal cord that has significant repercussions on functionality and participation in basic activities of daily living (ADLs) and instrumental activities (IADLs), and can even compromise the ability to drive a car. This study characterises a sample of patients who underwent a driving fitness assessment after a SCI, identifying the most common adaptations to vehicles and the restrictions imposed.

Methods

This is an observational, analytical and retrospective study carried out in a rehabilitation centre that has a specific consultation for assessing driving ability. The medical records of patients diagnosed with SCI who were assessed in this context over the past two years were reviewed. The variables age, gender, referral, etiology, level of SCI, classification according to the American Spinal Injury Association (AIS) and motor scores were included. The Statistical Package for the Social Sciences (SPSS) software, version 29.0.0.0 (IBM Corp., Armonk, NY), was used for statistical analysis.

Results

A total of 66 patients were included, mostly male (77.3%), with a median age of 59 years, and referred from outpatient clinics (68.2%). The most representative SCI was of non-traumatic etiology (50%) and with an AIS D classification (71.2%). The majority of patients were deemed fit to drive (98.48%), with the most frequent adaptations being automatic gear selection (56.1%) and the handbrake (34.8%). A lower motor score in the lower limbs and total motor score were associated with a greater number of adaptations ($p<0.001$), as were complete injuries (AIS A) ($p=0.003$).

Conclusion

The level of SCI directly affects autonomy and therefore driving ability. A careful assessment by a doctor, following a pathology or trauma that could compromise this ability, is essential to restore the patients autonomy and enable them to resume driving in a safe and adapted manner.

Keywords: Spinal cord injury; rehabilitation; driving