O 10.1 Pattern of traumatic spinal cord injuries in the Piedmont Region (Italy): a 13-year retrospective cohort-based study

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Alberto Borraccino[1], Roberta Onorati[2], Carlo Mamo[2], Maria Michela Gianino[1], Beatrice Albanesi[1], Sara Campagna[1], Valerio Dimonte[1]

[1]University of Torino, Torino, Italy, [2]Local Health Unit TO3, Grugliasco, Italy

BIOGRAPHY

Alberto Borraccino is an Associate Professor at the Department of Public Health and Pediatrics of the University of Torino. His research topics relate to Epidemiology and Allied Health Science. He has recently focused his research topic on the epidemiological and educational aspects related to spinal cord injury. His research background encompasses both quantitative and qualitative methods.

INTRODUCTION

Spinal cord injury (SCI) is one of the most complex and disabling health conditions a human being can suffer. More than 500,000 people worldwide suffer from SCI every year, with severe consequences for them and their families and with considerable direct and indirect costs. In recent decades, the aetiology of SCI has changed, road and workplace safety policies have led to a slow reduction in the number of traumatic injuries. However, they still remain the leading cause of SCI in many countries. By contrast, industrialised countries saw an increase in the proportion of household trauma, which is likely due to population ageing. Despite its social, economic and health impact, no study has yet investigated the pattern of traumatic SCI in Italy.

OBJECTIVE

To describe the pattern of traumatic SCI in the Piedmont Region in Italy, from the year 2008 to 2020.

METHODS

Several administrative information sources (medical records, emergency department admissions, and census sources) were used to identify individuals on their first admission to a rehabilitation centre for SCI from 1 January 2008 to 31 December 2020. Cases were stratified by age, sex, and cause of traumatic SCI.

RESULTS

During the study period, a total of 503 cases of traumatic SCI were identified. Of these, 79% were male, and 55% with paraplegia. For two-sixths of the identified cases, information on the cause of injury was missing. Of the 300 cases with information, the SCI was due to road traffic accidents (19%), domestic accidents (9%), and in 24% of the cases, they were coded as other accidents (sports injuries or otherwise classifiable causes). During the period under review, the number of road traffic accidents causing traumatic SCIs remained stable (on average 7/year) and involved more (74%) younger people (< 60 years). In contrast, domestic accidents showed a slight upward trend and involved 60% of people of older age (> 60 years).

CONCLUSION

Despite ongoing efforts to increase road and workplace safety, the number of traumatic SCIs due to these causes remained stable over the study period. Domestic accidents most commonly affect the elderly, requiring higher investment in preventive measures aimed at this population. Given the considerable number of causes of traumatic SCI that remained unreported or unspecified, it is essential that health systems adopt up-to-date accident classification systems to enable reliable monitoring and investigation of such events over time.