Evidence-based assessment, prevention and treatment of common complications after spinal cord injury: A review

Radin Maheronnaghsh b Ali Yousefian 1

1Sina Trauma and Surgery Research Center, Tehran University of Medical Sciences, Tehran, Iran

Background: According to the point prevalence of Spinal Cord Injury (SCI) (7.7 in 1,000), the incidence (7.7 in 1,000 between 7.7 to 7.7×10) and the total DALY (2,441 years in 7.7×10) in Tehran, heavy costs on health care systems are imposed. Patients who are disabled due to SCI, in the absence of proper care and education would suffer from serious complications with great impact on different aspects of their lives.

Objectives: The aim of this study is to review latest works on evidence-based approach for prevention, treatment and other rehabilitation programs of secondary complications in patients with SCI.

Methods: The MedLine/PubMed was used as the data source to identify studies since 1988 to June 2012. Cross referencing of discovered articles was also performed. All of the chronic complications and evidence-based rehabilitation interventions were extracted from those articles. Selected ones categorized into three main groups: Assessment, prevention and treatment.

Results: A total of 81 articles were selected on common complications, including pressure ulcer, spasticity, pain, cardiovascular and respiratory problems, erectile dysfunction, infertility and assisted conception, pregnancy and postpartum associated complications, renal and urinary problems, gastrointestinal complications, osteoporosis, nutrition, depression and anxiety disorders. For each complication latest evidence-based interventions investigated.

Conclusions: Despite advances in medical research, more is needed for assessment, prevention and treatment. Some of these problems are due to lack of sufficient evidence in SCI population. Several studies have not been designed especially for SCI so their evidences should be suggested carefully. Moreover, level of evidence of some interventions is not strong enough to be considered in clinical practice. Although more research should be considered, current studies show that advances in medical management and sophisticated equipment alongside with adequate education would have great impact on decreasing secondary complications of individuals with SCI. This review shows that evidence-based approach for all patients with SCI is essential.