Correlations between sf-36 and Oswestry-Disability index or rolland-morris disability questionnaire for patients undergoing lumbar decompression according to the type of pain from the spine

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Study Design: Cross-Sectional Study

Objective: To determine the correlation between SF-36 (a measure for overall health status in patients) and Oswestry-Disability Index (ODI) or Rolland-Morris Disability Questionnaire (RMDQ) confined to spine according to the type of pain from the spine.

Summary of Background Data: Data showed moderate correlation between ODI and SF-36 Physical Component Score (PCS) Physical Functioning (PF) (r = -0.46), Physical Role Functioning (RP) (r = -0.284), Bodily Pain (BP) (r = -0.327), and Mental Component Score (MCS) Emotional Role Functioning (RE) (r = -0.250), Social Role functioning (SF) (r = 0.254), Vitality (VT) (r = 0.296).

Methods: Between 1 January 2008 to 31 December 2013, a total of 69 patients were enrolled in this study. They were diagnosed with lumbar spinal stenosis and underwent decompression surgery such as laminotomy in this hospital. The three standardized questionnaires (ODI, RMDQ, and SF-36) were given to these patients, at least one year after the surgery.

Results: ODI and SF-36 had a statistically significant (p = 0.001) and moderate correlation. Small correlations were also seen between PF (r = -0.46), RP (r = -0.284), and BP (r = -0.327) of SF-36 PCS and ODI, and between RE (r = -0.250), SF (r = -0.254), and VT (r = -0.296) of SF-36 MCS and ODI. Items in ODI for the level of pain while standing and traveling were mostly related to axial back pain, while item of lifting was related to referred buttock pain. Sleeping disturbance section in the ODI was mainly caused by radiated leg pain. In addition, RMDQ was also associated to the three types of pain.

Conclusions: Moderate correlation was found between ODI or RMDQ as a condition specific outcome and the SF-36, indicating overall health status. ODI was found to be a more adequate measure to evaluate axial back pain rather than referred pain or radiating pain. RMDQ was adequate to measure the health status and to evaluate the three types of spine pain. These three instruments could therefore provide the clinician with complementary information about the patient’s status.

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