

# Exercise Training for Non-operative and Post-operative Patient with Cervical Spondylotic Myelopathy: Systematic Review

Chih-Hsiu Cheng<sup>1,\*</sup> Hao-Tsung Su<sup>1</sup> Wen-Yu Liu<sup>1</sup> Shwu-Fen Wang<sup>2</sup>  
Wei-Li Hsu<sup>2</sup> Yu-Fen Chuan<sup>1</sup>

**Background and Purpose:** Patients with cervical spondylotic myelopathy suffer from physical disorders and functional deterioration, and are commonly suggested with the exercise training. The aim of this study was to investigate the effect of exercise on the non-operative or post-operative patients with cervical spondylotic myelopathy. **Methods:** The database from the Airiti Library, PubMed, MEDLINE, and ScienceDirect were used, and the articles published from January 2000 to May 2013 and explicitly presented with the exercise program were identified. **Results:** Only five articles were included in this review (three were non-operative studies, and two were post-operative studies). Among these five studies, two were scored by 2 points with PEDro scale, and three were scored by 3 points. Level of evidence was grade IV for all five studies according to the Oxford Centre for Evidence-based Medicine-Level of Evidence. Low quality and level of evidence were due to poor study design without randomized control trial and double-blind procedure. Results of the non-operative studies showed that the craniocervical flexion and walking exercise can improve the motor & sensory function, functional independence and walking ability of the patients. Such exercises also reduced neck dysfunction and severity of disease. Results of post-operative studies showed that the lower limb strengthening, functional training, walking exercise and early cervical range of motion exercise can improve strength, function and walking ability, as well as maintained cervical lordotic curve in neutral position. **Conclusion:** According to these low-quality studies, our review suggests that exercise training can benefit both non-operative and post-operative patients with cervical spondylotic myelopathy by the body function & structure, activity and participation. (FJPT 2013;38(4):279-285)

**Key Words:** Cervical spondylotic myelopathy, Exercise training, Post-operation, Non-operation

<sup>1</sup> Department of Physical Therapy and Graduate Institute of Rehabilitation Science, College of Medicine, Chang Gung University

<sup>2</sup> School and Graduate Institute of Physical Therapy, College of Medicine, National Taiwan University, Taipei, Taiwan

Correspondence to: Chih-Hsiu Cheng, Department of Physical Therapy and Graduate Institute of Rehabilitation Science, College of Medicine, Chang Gung University, No. 259, Wen-Hua 1st Rd., Kwei-Shan Township, Taoyuan County 302, Taiwan

Tel: 886-3-211-8800 E-mail: chcheng@mail.cgu.edu.tw

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