

Research Progress on Acupuncture and Moxibustion Treatment of Lumbar Spondylopathy in China

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Abstract

Lumbar spondylopathy falls into category of low back pain and arthromyodynia in Traditional Chinese Medicine. Many of epidemiological data show that 60-80% of the adults have been suffered from it at any one time, which is currently a primary clinical symptoms of lumbar spondylopathy are low back pain, pain and numbness of lower limb, limited activities of lower back, or even loss of self-care ability.

These studies preliminarily demonstrate that acupuncture can significantly improve signs and symptoms of lumbar spondylopathy such as low back pain, pain and numbness of lower limb, walking disability, loss of sensibility, positive straight-leg raising test, and enhance muscle strength and self-care ability. These clinically therapeutic effects showed that acupuncture treatment is obviously superior to any other single method or drug. Meanwhile, no considerable side effects were found in these studies. However, methodology clinical research further improvement, such as control group selection, random hiddenness, blind methods, outcome assessment system and management of clinical data.

To formulate an uniformed standard diagnostic, evaluation efficacy and method of efficacy evaluation should be paid attention to research. Clinical research on acupuncture treatment for low back pain of big sample and multicenter and pragmatic randomized controlled trial should be designed by scholars of transregional and transnational, evaluate curative effect clinical and analysis health economic for therapy of common and effective. : To develop guidelines for clinical practice on low back pain cured by acupuncture and moxibustion which improve effect of diagnosis and therapeutic and management low back pain patient in future.

Key words: Acupuncture and Moxibustion, Lumbar spondylopathy, Research Progress, treatment

Lumbar spondylopathy falls into category of low back pain and arthromyodynia in Traditional Chinese Medicine¹⁾, which is currently a common disease in Department of Acupuncture, including many diseases caused by pathological changes in lumbar intervertebral disc herniation, ligament, vertebral canal, physiological curvature, and vertebral body structure. Primary clinical symptoms of lumbar spondylopathy are low back pain, pain and numbness of lower limb, limited activities of lower

back, or even loss of self-care ability^{2,3)}.

Many of epidemiological data show that 60-80% of the adults have been suffered from it at any one time, which is second common clinical symptoms and being inferior to upper respiratory disease currently⁴⁾. To survey from Tsing dao medical college of China regarding five types of occupation such as the spinning and machine and so on show that prevalence rate of low back pain is 11.5% among 10087 workers⁵⁾. Lou Yuling and others

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found that prevalence rate of low back pain is 13.6% among 3012 villagers from southwest Henan province after epidemiological survey⁶⁾. Gao Mingxuan and others found that prevalence rate of low back pain is 31.5% after investigation into armored forces from northwest high cold area regarding epidemiological, including 41.3 % among tank soldiers and 19.2% among non-tank soldiers respectively⁷⁾. Lumbar spondylopathy have been a commonly symptoms which affected people health and it is one of main reasons to make people loss of self-care ability and delay work (table 1).

Etiology of lumbar spondylopathy result from intervertebral physiological degeneration, trauma, inflammatory reaction and congenital. Lumbar spondylopathy is related to age, gender, occupation and physique for patient. Vertebrae and intervertebral dis and surrounding tissue have been caused more than its load capability and result from strain damage by incorrect posture, obesity, pregnancy and so on. Moisture and cold can lead to lower back and back muscle spasm, capillary vessel contract, shortage blood supply of part tissue, obstruction of lymphatic return which all make metabolic product build up resulting in pain^{8,9)}. Currently, according to some researches show that some respects will lead to lumbar spondylopathy, such as tiredness, overstrain, energy deficiency and mental factor

Lumbar spondylopathy lack of unified standard of clinical diagnosis and clinical efficacy evaluation, although methods treatment are various¹⁰⁻¹³⁾. Primary clinical manifestations of lumbar spondylopathy are

low back pain, in either one or both sides of wandering pain waist, unable stretching and cough or sneeze, with numbness and weakness muscle of lower limbs, and severe may caused coliosis and spondylolisthesis and dysfunction of urination and defecation, examined by CT or MRI can help diagnose lumbar spondylopathy¹⁴⁻¹⁵⁾.

Category and quality of research

Most of the small sample and non-randomized clinical observation, research of randomized controll seldom provided, improving quality of research and sample size acupuncture clinical research in future¹⁶⁻²⁷⁾.

2489 Chinese papers published between 1994-2008 on acupuncture and moxibustion treatment of lumbar spondylopathy were obtained from literature search, which including 351 (14.10%) papers of simple randomized mentioned, 54 (2.17%) papers of detailed introduction of randomized study method of randomized controlled trials, 1518 (60.99%) papers no control group designed and 566 (22.74%) papers although which were designed control groups, but rarely papers of mentioned comparability between trial group and control group, provided statistic method of relevant data processing and evaluated conclusion of between group comparability.

Sham acupuncture and double-blind evaluation of acupuncture treatment has been considered difficulty because sham acupuncture aimed at masking practitioners have been considered unfeasible.

Table 1: Epidemiological survey in China

	researchers	Surveyed occupation	sample size	Prevalence rate(%)
1	ZhengY G and others	worker	10087	11.5%
2	Lou Y L and others	villager	3012	13.6%
3	Gao M X and others	tank soldiers and non-tank soldiers	2456	tank soldiers 41.3%; non-tank soldiers 19.2%

Table 2: Jadad scale evaluation literatures

Classification (score)	0	1	2	3	4	5
quantity	2082	351	41	13	0	0
percentage	83.6%	14.1%	1.6%	0.05%	0	0

Double-blind method was not mentioned in all clinical researches. Only 8 clinical researches was mentioned unknow the packet of valuateator for clinical curative effect and people of responsibility statistics. Only 13 clinical researches mentioned follow-up survey which include mainly 3 months, 6 months, 1 year.

According to Jadad scale used to assess the quality of clinical trial, analysis and evaluation for these clinical research literature, which found some problem in category and quality of research literature, majority of literature are low quality such as expert experience, without 4 score of literature, 13 papers is 3 score, 41 papers is 2 score, 351 papers is 1 score (table 2).

Therapy for acupuncture and moxibustion

There are many therapy of acupuncture moxibustion involved in, the differences between therapy strict controled study seldom provided. Therapy of clinical research were mentioned by acupuncture and moxibustion treatment lumbar spondylopathy which include mainly acupuncture, electroacupuncture, acupuncture with warmed needle, fire needle, hydro-acupuncture, moxibustion, acupuncture combined with other methods, including massage, acupotomology, ventouse, Traditional Chinese Drug.

Acupoints

Acupoints of treating acute and subacute lumbar spondylopathy are single acupoint, acupuncture specific acupoints, distant acupoints along meridians and collaterals, such as Yaotongdian (EX-UE7), Shuigou (DU26), Houxi (SI3), Zanzhu (BL-2), Yintang (EX-HN3), choose heavy stimulation manipulation, during retention of the needles combined with patients exercise for lumbar. Acupoints of treating chronic lumbar spondylopathy are local acupoints, Ashi acupoints, differentiate syndromes and signs for acupoints, such as Jiaji (EX-B2), Ashi, Yaoyangguan (DU3), Shenshu (BL23), Dachangshu (BL25), Xiaochangshu (BL27), Guanyuanshu (BL26), Zhibian (BL54), Huantiao (GB30), Chengfu (BL36), Yinmen (BL37), Weizhong (BL40), Yanglingquan (GB34), Fengshi (GB31), Zusanli (ST36), Chengshan (BL57), Kunlun (BL60). Moxibustion and punctured to cause bleeding should be selected according differentiation, combined with patients exercise for

lumbar, correct posture, adjustment mental and eliminate moisture and cold.

Clinical efficacy evaluation

Primary clinical symptoms of lumbar spondylopathy are low back pain and functional disturbance lumbar, the two aspects of lumbar are focused on clinical efficacy evaluation. Clinical efficacy evaluation of lumbar spondylopathy include mainly reforming Oswestry Disability Index (ODI) were adopted as overall functions outcome measures, Visual Analogy Score (VAS) and international recognized McGill Pain Questionnaire (MPQ) were adopted as ache outcome measures, SF-36 Health Survey were adopted as quality of life outcome measures²⁸⁻²⁹.

The Problem

1 Lack of uniformed standard diagnostic

Though there are many diseases caused by lumbar spondylopathy, most of primary clinical symptoms of low back pain and functional disturbance lumbar, different etiology of low back pain, the same methods cured by acupuncture and moxibustion, namely is "the same methods of curing the different disease". Therefore, to formulate uniformed standard of diagnostic, staging, determination of treatment according to differentiation of symptoms and signs are based to high quality of big sample and multicenter of clinical research.

2 Lack of uniformed standard clinical efficacy evaluation

Though some methods of internationally recognized evaluation are adopted in low back pain and functional disturbance lumbar, but no specialized methods of evaluation clinical efficacy, lack of uniformed standard clinical efficacy evaluation. There are less clinical research in the quality of life, loss of self-care ability and health economic analysis of lumbar spondylopathy.

3 Selection control group of clinical research need to be improved

No single acupoint randomized control clinical research strictly of treating acute low back pain, more different therapy and different acupoints between group comparability of clinical research often appear, but it is difficult to eliminate placebo effect.

4 Seldom high quality of big sample and multicenter of clinical research

Random hiddenness, follow-up survey, sample size and management of clinical research data need further improvement.

The proposal

To formulate an uniformed standard diagnostic, evaluation efficacy and method of efficacy evaluation should be paid attention to research. Clinical research on acupuncture treatment for low back pain of big sample and multicenter and pragmatic randomized controlled trial should be designed by scholars of transregional and transnational, evaluate curative effect clinical and analysis health economic for therapy of common and effective. : To develop guidelines for clinical practice on low back pain cured by acupuncture and moxibustion which improve effect of diagnosis and therapeutic and management low back pain patient in future.

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