PARALLELOGRAM PRINCIPLE OF CERVICOLUMBAR SYNDROME AND APPLICATION OF CHINESE POINT MASSAGE FOR TREATMENT AND PREVENTION

(Preliminary communication)

Zhanna Gotova
National Sports Academy “Vassil Levski”
Department of ”Sports Medicine” Sofia, Bulgaria,

Abstract
The aim of the study was regulating the circulation of Qi energy in the energy channels and collaterals by Chinese point massage in lumbar spine and full functional recovery of patients with cervicolumbar syndrome. Object of study were 27 young athletes aged 18 to 26 years, 13 women and 14 men with lumbar spondylosis and cervical syndrome with a headache. Chinese point massage applies on stomach position. The treatment course consisted of 10 sessions, for a month, every second day. The results obtained from the experiment showed reduced pain intensity, normalization of lumbar and cervical lordosis, improved posture.

Keywords: young athletes, women, men, Chinese point massage, Qi energy, analogue scale (VAS), t-test

INTRODUCTION
Complex biomechanical relationship between the driving segments in the kinematic chain of the spine (intervertebral discs, facet joints), muscle and nerve tissue are forming the lumbar and the cervical part of the vertebral column spine in patients with cervicolumbar syndrome - a challenge to the therapist to perform the appropriate functional diagnostics and development of an adequate program for overcoming and preventing the disease.

This work is an attempt to summarize the possibilities for correction of the pathology and its prevention. Insufficient study of motor reactivity of the spine and the parallelogram principle of lumbar and cervical curve drew the author’s attention to this issue.

Because the Traditional Chinese Medicine is not widely spread in European kinesitherapeutic practice as a means of treatment and prevention of cervicolumbar syndrome, assumed that studying the process of application of Chinese point massage, would help create a comprehensive system in this direction.

The aim: To adjust the circulation of Qi energy in the channels and collaterals by Chinese point massage in low back and full functional recovery of patients with cervicolumbar syndrome.

Object of the study: Chosen 27 young adult athletes with age 18 to 26, of which 13 female and 14 male, who had low back pain and followed neck pain with a headache.

METHODS
X-ray films
Standard lateral lumbar and cervical X-ray films were taken in a standing position. In order to precisely observe and measure the change,. All patients were examined with X-ray at the beginning and end of treatment (Figure 1. and Figure 2.).
Visual analog method of subjective feeling pain intensity

Identified subjective sensation of pain intensity in the lumbar spine by visual analogue scale (VAS) from 0 to 10. Grade 0 means no pain, and 10 degree - maximum unbearable pain. For practical convenience in analyzing the results grouped estimates of the VAS and evaluated them as follows:

- 0 - no pain (assessment 0).
- 1 to 3 - mild pain (assessment 1).
- 4 to 6 - moderate pain (assessment 2).
- From 7 to 10 - severe (assessment 3).

The test we applied before and after the scientific experiment: the patients themselves have pointed to subjective feelings of a horizontal line of 10 degrees and with identifying words at both ends of the state „no pain“ and „pain“.

Chinese point massage

The Chinese point massage within the lumbar spine region has been applied toward the patients examining the influence of active points by deep pressure in a circular motion for 1 min. Pressure was carried out with the pad of the thumb or the middle finger. The pressure was short, with force, but painless procedure, followed by a sharp separation from the point of a finger. Also a vibrating movement has been applied.

Processing of the active points of the Bladder energy channels and Du Mai energy channels has been realized. Symmetrical points on both sides massaged simultaneously. The massage applied on stomach position. Treatment course consisted of 10 sessions, for a month, every second day.

In the treatment of pain, the author aimed to regulate the circulation of Qi energy in the channels and collaterals through massage on active points on these active points:

- Shen Shu BL23 (Fig. 3)
- Ci Liao BL32 (Fig. 4)
- Yao Shu DU2 (Fig. 5)
- Yang Koan DU3 (Fig. 6)
- Ming Men DU4 (Fig. 7)
- Zhi Shi BL52 (Fig. 8)

Figure 2. Lumbar and cervical segment area – normal curvature (after Chinese point massage)
The collected primary data were analyzed using parametric analysis to test the hypotheses. We used t-Student test for dependent samples. Differences considered significant when was p <0.05.

RESULT AND DISCUSSION
Comparative analysis of the results obtained by the VAS at the beginning and end of the experiment
In analyzing the results of the SAC at the beginning of the experiment, we found the following:
Registrants pain in the lumbar spine as strong by visual analogue scale and whether the assessment of three subjective sensations were 92.6%. 7.4% of the respondents gave an assessment 2 on pain sensations. A fundamental difference found when comparing the results at the end of the experiment.

Painful symptoms are benefited after the experiment. Residual pain that emerged after the end of treatment was very low. Only one patient assessed first by visual analogue scale. Recovered lumbar lordosis in turn contributes to a reduction of the pain symptoms in cervical syndrome (Table 1.)

Comparative analysis of the results obtained by the X-ray at the beginning and at the end of the experiment
There is a close relationship between the range of reduced lumbar and cervical curvatures and whether the curvatures of the patients are normal or not. All patients with reduced lumbar segment areas also have reduced cervical segment areas.

The mechanics of altered lumbar curvature change influencing cervical curvatures Chinese point massage in the low back area interrupts pathological signal in the affected area by normalizing the function, relax the muscles, thereby restoring the lumbar curve.

Fully restored lumbar lordosis at the end of the scientific experiment contributes to full recovery of cervical lordosis and eliminates subjective complaints. The difference between the segment area of lumbar and cervical curvatures before and after X-ray are significant statistically p<0,05 (Table 2).

CONCLUSIONS
1. Our suggested methodology of Chinese point massage helps to normalize the lumbar, and hence the cervical lordosis, relieve symptoms caused by cervical syndrome, normalize of the stand.
2. Improving posture reflects favorably on pain. This allows us to recommend our methods of Chinese massage point massage as an effective method to treat cervicolumbar syndrome.

3. In the lumbar spondylolysis where among reversed lumbar lordosis are formed further distortions in the kinematic chain of the spine such as reversed cervical lordosis, headache, cervical syndrome, it is essential the Chinese point massage to regulate the circulation of Qi energy channels and collaterals.

While studying the parallelogram equilibrium of spinal contour forces, this scientific research pointed out that in the sagittal plane, the upper lumbar spine and the upper cervical spine form the opposite sides of a parallelogram. Therefore, the influence of lumbar curvatures on cervical curvatures indicates that the spine moves and balances around its central axis under ligaments and muscle forces according to the parallelogram principle.

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Correspondence:
Zhanna Gotova,
National Sports Academy “V. Levski “, Sofia
Department of” Sports Medicine
“Studentski grad, 1700 Sofia, Bulgaria
E-mail: janna.gotova@yahoo

Medicina и физкултура.