

Observation of a Cervical Spine Movement Therapy: A Case of College Students

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ABSTRACT: To evaluate the efficacy of conservative treatment of cervical exercises to cervical spondylosis. **Methods:** 60 subjects were divided into two groups randomly. The control group use drugs, traction, heat, physical therapy and other conventional methods of treatment and care; and the experimental group on the basis of conventional therapy accompany with cervical exercises exercise. **Results:** According to the Clinical Practice and follow-up after discharge, observation group and control group were cured efficiency about 86.5% and 61.5%, respectively, comparing the two groups, the difference was significant. **Conclusion:** Sticking to cervical exercises can significantly improve clinical outcomes of conservative treatment of cervical disease.

KEYWORD: cervical; exercise therapy; observation

Cervical spondylosis is a disease that is a cervical intervertebral joints (disc, facet joint hook, facet joints) degeneration, involving the nerve (nerve root, spinal cord, sympathetic), vascular (before spinal artery, vertebral artery) and a corresponding clinical manifestations (symptoms and signs) [1], more common in middle-aged crowd. With the increase of learning and work tasks, age of onset of cervical disease gradually tend to be younger. Young patients accounted for 12% of patients with cervical about, which than in previous years was significantly increased. With the main part of the cervical neck and shoulder exercises by surrounding the cervical muscles, ligaments vasomotor workout, which can improve muscle strength and joint mobility cervical spine. This study was to explore the impact of cervical exercises for the rehabilitation of patients with cervical college students, to explore a more simple and comprehensive, secure and reliable method for the prevention and treatment of cervical disease.

1 SUBJECT AND METHOD

1.1 Subject

After medical screening, selecting college students of patients with cervical lordosis changed 187 cases, according to their clinical symptoms, signs and radiographic examination confirmed. Which is not associated with other serious physical illness, and

the exclusion of indications for surgery and postoperative recurrence. In accordance with odd and even hospital numbers divided into observation group and control group. Observation group 96 cases, male 57 cases, female 39 cases, 91 cases in the control group, including 59 males and 32 females. Comparison of the two groups in gender, age, type, etc., the difference was not statistically significant ($P > 0.05$) is comparable.

1.2 Method

- (1) The control group received conventional treatment (drug therapy, massage, heat therapy, etc.) and routine care.
- (2) Observer Group in accordance with the movement of the spine flexion, rotation rule, the lower section of the upper cervical spine and two exercise target site created a complete set of self cervical exercises, organized in the observation group were neck Exercises, no less than five days a week, two times a day, each time not less than 20 minutes.
- (3) Determination of cervical lordosis and efficacy standards.

Changes in cervical lordosis are the main imaging features of cervical spondylosis adolescents. Before or after the experiment, measuring the physiological curvature of the cervical by spinning X-ray photography, along from the second to the fourth cervical vertebra, after the midpoint of the lower

edge even line angle connection with the lower edge of the seventh cervical vertebra cervical midpoint of the lower edge which can get "cervical angle".

Refer to "Chinese disease diagnosis and efficacy standards" to develop: (a) cure: the original symptoms and signs disappeared, cervical spine freely. X-ray normal physiological curvature; (2) improved: The main symptoms and signs were relief, with occasional neck discomfort, mild limitation of neck. X-ray films showed improved physiological curvature; (3) invalid: The main clinical symptoms and signs do not have significant improvement, limited neck mobility. X-ray showed no significant improvement in the physiological bending.

2 RESULTS

2.1 Two groups of patients in the hospital six months later efficacy assessment, observation group than the control group.

Table 1 compares the efficacy of two groups of patients

Group	N	markedly	improved	cure	invalid	total effective rate (%)
Observation group	96	37	46	10	3	86.5
Control group	91	22	34	27	8	61.5

Note: Compared with the control group, $X^2 = 15.57$, $P < 0.05$

2.2 Comparison of the two groups of patients relapse rate after six months

Table 2 compares the two groups of patients relapse rate

Group	n	recurrence	rate of recurrence (%)
Observer Group	96	5	5.2
Control group	91	16	17.6

Note: Compared with the control group compared with the control group, $X^2 = 7.02$, $P < 0.05$

3 DISCUSSION

3.1 The causes of cervical spondylosis of College students

3.1.1 Chronic fatigue

Currently, the cervical disease incidence of college students is rising. The main reason is that students accustomed to bow down before sitting on desks with incorrect posture when using the computer for a long time. Thus the flexion of the cervical spine tired state and the neck muscle was in tonic contraction. Meanwhile many students go to bed at night incorrect posture or back of the neck pillow which makes improper use of muscles, ligaments in the

cervical spine twisted state to result in chronic neck strain. Then make it the joint capsule and intervertebral ligament laxity and muscle tension reducing, function unbalancing. The support and protection of the cervical spine was weakened, followed by cervical physiological curvature also changes, resulting in cervical spondylosis.

3.1.2 Rauma leads

College students like sports activities, but in activities they pay less attention to protect their spine. When violence and sudden twist occurs outside world, it will lead to cervical disc herniation and other soft tissue injuries and produce different degrees of cervical disease symptoms (as do the front and rear roll that cervical suddenly forward, backward move, soccer ball with the head movement, swimming in diving, as the risk of cervical spine injury has inadvertently).

3.1.3 The lack of physical exercise

Currently college students sports exercise is inadequate, and lack of physical exercise is likely to cause cervical surrounding muscles, ligaments, joint capsule relaxation and strain, neck stiffness and soreness. And when it is severe that can cause dizziness, upper extremity numbness, shoulder pain and other symptoms.

3.1.4 Lack of blood and exogenous cold

Cervical spondylosis belong to the category of traditional Chinese medicine treatment of neck and shoulder pain. The doctor of traditional Chinese medicine thinks due to qi deficiency and exogenous cold physique along with, cold origin invade the blood brawn, and make the vein detained acute pain, pain failure waste time.

3.2 Cervical exercises exercise effect

The cervical practice emphasizes the combination of activity, breathing deep breathing, psychological adjustment, to guide the human body to achieve a good condition and make person's heart loosened, seasoned liver organs, Qi and blood flow. And it also can exercise all the joints and ligaments, comfortable channels, promoting circulation, (correct body posture, comprehensively improve the function of the body it is forward bends. For the neck, stretch and turn around after stretching, while fully exercise the neck muscles at the same time and move the humeral back each muscle group in the direction of the depth of the static tensile. It has the effect of force of cervical vertebra (namely eight brocade exercise on is the main purpose of this disease by neck muscles exercise, strengthen the neck muscles strength to maintain the stability of the cervical spine. Cervical muscle exercise can relieve

muscle spasm, improve bony structure, relieve pain, prevent muscle atrophy, restore and enhance the activities of the cervical spine function. It also can prevent cervical stiff joints, improve the blood circulation in the neck, promote inflammation subside. At the same time it from the perspective of traditional Chinese medicine focus on harmonic of the liver organs, both inside and outside and governance; and pay attention to the body's overall activities and parts are interrelated. Meanwhile of treatment for neck disease does not forget other relevant parts of the exercise, comprehensive and targeted (no doubt the neck than simple manipulation treatment and medication more comprehensive and more subtle, so eight brocade exercise the curative effect is better than the methods of treatment, significantly better than drugs.

ACKNOWLEDGEMENTS

This work was supported by the natural science foundation of Shandong Province. Item Number is ZR2010HL001.

REFERENCES

- [1] Zhou Bingwen. Some views for the concept, category and type of cervical spondylosis. Chinese journal of spine and spinal cord, 2003, 13(4):200-202.
- [2] Chu Shaozeng, Chu Desheng; Chen Xinge. Comprehensive therapy for adolescents, 80 cases of cervical spondylosis. Journal of External Therapy of Traditional Chinese. Medicine2009, 18(3):14-15.
- [3] Katsushi Tskeshita, Motoaki Murakami Relationship between cervical curvature cervi-cal spine angel (C2-7) Journence 2001(6)223-226.