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# Application and Development of Acupuncture Technique in Cervical Spondylosis

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#### **Abstract**

Based on the analysis of relevant clinical literature on acupuncture and moxibustion for the treatment of cervical spondylosis, the therapeutic effects and development degree of acupuncture and moxibustion in the treatment of cervical spondylosis in recent years were explored and studied from the perspectives of the simple use of filiform needle acupuncture, acupuncture combined with other therapies and the combination of multiple therapies. It provides theoretical basis for future clinical study on acupuncture treatment of cervical spondylosis.

#### **Keywords**

Cervical spondylosis; Acupuncture therapy; Application.

#### 1. Introduction

Cervical spondylosis, also known as cervical spine syndrome, not only refers to the disease of cervical spine problems, it is also the general term of cervical osteoarthritis, hyperplastic cervical spondylosis, cervical nerve root syndrome, cervical disc herniation. It is a disease mainly based on degenerative pathological changes, and this clinical syndrome is generally called neckpain in foreign countries, while in China, it mostly belongs to the range of cervical and radicular cervical spondylosis. In recent years, due to the gradual increase of living pressure in the city, the continuous improvement of consumption level, the working intensity of most people has risen significantly, the number of people suffering from cervical spondylosis is increasing, and the age span is also getting larger. Clinical data shows a significant increase in incidence of cervical spondylosis and younger trend, the vast majority of office workers and students suffering from neck ache faint weakness, limb soft, finger tremors and needles, such as pain, these symptoms not only seriously affect the learning of life, the more influence to the quality of life, even harm to our health of body and mind. Therefore, as long as the symptoms of cervical spondylosis occur, we must go to the hospital for a thorough examination immediately to prevent future problems. Based on this, the author searched literatures related to acupuncture technology and cervical spondylosis on THE website of THE National Knowledge Grid, and summarized literatures related to the treatment of cervical spondylosis and its mechanism by simple acupuncture, electroacupuncture and other comprehensive therapies, and reported as follows.

# 2. Five main Characteristics of Cervical Spondylosis

# 2.1. Cervical Spondylosis

This is the most common type of cervical spondylosis, it can also be said that it is the early patriarch of cervical spondylosis, this type of cervical spondylosis early onset is characterized by its symptoms, there are a lot of frequent stiff patients are actually cervical spondylosis patients, but few people admit this type, so it is rarely mentioned in the literature. This type of patients in the morning after getting up in the neck discomfort, pain, swelling, acid hemp, the head can not be successfully raised, patients often complain that they do not know where to

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place the head, neck activity is limited and accompanied by forced position, rest can be relieved, severe pain after activity.

# 2.2. Radiculocervical Spondylopathy

The symptoms of this type are mostly root lesions, with frequent neck and shoulder pain, numbness in the upper limbs, and a significant loss of muscle strength accompanied by obvious tightness of the neck muscles. The patient's cervical process is prone to pathological dislocation, and can also produce pain when pressing, and the joint at the joint process is obviously swollen and bloated. Once these symptoms occur, it can be diagnosed as cervical spondylotic radiculopathy basically.

# 2.3. Vertebral Artery Type Cervical Spondylosis

The most common symptoms are dizziness and headache, with dizziness, nausea, blurred vision and loss of vision occurring at the slightest turn of the neck. In the onset of this type of cervical spondylosis, patients may have slight loss of consciousness and movement disorders, mainly reflected in the unstable walking and the body of the two sides. A small number of patients can also produce eye diplopia, trembling hands and feet, tinnitus and deafness and other clinical manifestations.

# 2.4. Sympathetic Cervical Spondylosis

This type of patients suffer from headache, migraine, more tears, dilated pupils and a racing heartbeat, chest pain, vasospasm, body cold, sweating, the characteristics of the sympathetic nerve excitement obviously, instead, it also can inhibit the sympathetic nerve, make the patients appeared dizziness, gastric atrophy, reduced heart rate, lower blood pressure, clinical symptoms of nasal congestion or flow the stuff

# 2.5. Sympathetic Cervical Spondylosis

This This type of early onset patients feel the body paralysis, sleepiness, fatigue, or some feeling of motor nerve injury, usually show the activity obstacle, limbs swelling, pain, fatigue, weakness, dizziness, headache, nerve damage, micturition weakness, genital paresthesia, urinate frequently, defecate force is insufficient and so on.

## 3. Therapeutic Effect of Acupuncture on Cervical Spondylosis

## 3.1. Therapeutic Effect of Acupuncture Alone on Cervical Spondylosis

Wu Wei [1] divided 100 patients with radicular cervical spondylosis into experimental group and control group according to the order of treatment, with 50 patients in each group. All members of the experimental group were treated with "Bo Zhiyun abdominal acupuncture prescription for cervical spondylosis". The other group was treated with traditional traction therapy. Results showed that the effective rate of treatment in the experimental group was 98.0%, 20% higher than that in the other group. ,so the treatment of cervical spondylosis by "Bo shi" abdominal acupuncture is better than the traditional traction therapy, and the operation is easier; Guideline [2] 60 patients with vertebral artery cervical spondylosis were selected from the hospitalized patients as the test subjects. They were treated with single acupoint therapy every day for seven days as a course of treatment. After the end of treatment, the total effective rate reached 91.7%, fully proved that acupuncture at Renzhong point can relieve the tightened vertebra occipital muscle group, effectively inhibit the sympathetic nerve in excitement, relieve the contracture of vertebral artery, accelerate the blood flow of neck, and achieve the purpose of relieving vertigo; Li Biao and Jiang Hua [3] selected 35 patients as the control group, and the remaining 35 patients as the observation group. They first used paracupuncture to acupuncture fengchi points on both sides of the observation group and ordinary

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acupuncture to acupuncture Ashi points on both sides of the observation group, while the control group only used conventional acupuncture to acupuncture Fengchi and Ashi points. The total response rate in the final observation group was 91.43%, higher than that of the control group. Finally, it is concluded that fengchi acupuncture combined with Ashi point has great clinical advantages in the treatment of cervical spondylosis. Ding Yuting [4] divided 100 patients with vertebral artery cervical spondylosis into two groups, one half of which was selected as acupuncture treatment group, and the other half was selected as massage treatment group. Firstly, acupuncture was performed at Dazhui, Neiguan, Baihui, Taichong and Fengchi points of members of the acupuncture group, and then the members of the massage treatment group were only treated with conventional massage. After 14 days, the total effective rate of acupuncture group was 90%, while that of massage group was 22% lower, the results showed that acupuncture at some acupoints can relax the tightened neck muscles and accelerate the blood circulation, so as to significantly relieve the dizziness, headache and neck pain caused by cervical spondylosis.

#### 3.2. Effect of Electroacupuncture Therapy on Cervical Spondylosis

Yan Haiguo [5] treated 43 patients with cervical spondylotic radiculopathy with manipulation of massage, and then continued acupuncture treatment for 43 patients based on massage treatment. Fengchi Point, Cervical Jiaji Point, Cervical Ashi point and other points were selected and connected to the electroacupuncture instrument. The equipment was adjusted at frequency 1 and current intensity 1.5~2, and the needle was left for 30min. After one course, the total response rate was 95.5% in the treatment group and 76.74% in the other group. The results showed that electroacupuncture had a good effect on cervical spondylotic radiculopathy. Wang feng [6] et al., acupuncture patients with baihui, fengchi and head immediate weeping, electroacupuncture was connected to the same lateral fengchi and head immediate weeping, and the adjustment was performed at a frequency of 2Hz, with a total effective rate of 84.0%. The recurrence rate was 9.5% after 180 days of follow-up. Xie wei, zhang jie [7] and others degeneration in 60 patients diagnosed with spinal cord type of cervical spondylosis patients selected half as observation group, the other half is in the control group, the two groups of patients take basic western medicine treatment, on the basis of the observation group of neck clip ridge point with electric acupuncture, the control group using conventional insertion method, treatment after the end of the results of the analysis, The total effective rate of observation group was 93.33%, which was 3.33% higher than that of control group, indicating that electroacupuncture at Cervical jiaji point is more effective than conventional acupuncture in the treatment of cervical spondylotic myelopathy, which is worthy of further clinical use; Zheng Wenjie [8] studied 86 patients with cervical spondylosis, 41 of whom were in the conventional group and the rest were in the electroacupuncture group. All of these people were treated with western medicine first, and then the patients in the electroacupuncture group were further treated with electroacupuncture. After treatment, the neck pain in the electroacupuncture group was significantly relieved, and the effect time was faster than that in the conventional group.

# 3.3. Comprehensive Treatment Effect of Various Methods for Cervical Spondylosis

#### 3.3.1. Acupuncture Combined with Massage

Zhu Gengchuang [9] selected the same number of patients with cervical spondylosis and divided them into two groups: the observation group and the control group. Both groups were treated with basic treatment first, the control group was treated with acupuncture based on conventional therapy, and the observation group was treated with massage based on the control group. The results showed that blood circulation increased in both groups after treatment, and that the observation group was faster than the control group. Li Suilin [10]

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treated a control group consisting of 30 patients with cervical spondylotic radiculopathy with western medicine, and then treated the same number of members of the research group with Chinese acupuncture and massage. The final results showed that the clinical efficacy of the research group was better than the control group, and the pain relief rate was also higher than the control group; Niu Lin and Wang Shuangshuang [11] selected 113 patients with vertebral artery cervical spondylosis with qi stagnation and blood stasis, and 57 patients were treated with massage and acupuncture based on this. The other 56 patients were treated as the control group. The total effective rate in the treatment group was 92.98%, higher than that in the control group, and no serious side effects occurred in the two groups. It is concluded that acupuncture combined with massage has a good effect on alleviating symptoms and relieving pain in patients with cervical spine problems of qi stagnation and blood stasis type, and more importantly, it significantly improves the quality of life of these patients.

#### 3.3.2. Acupuncture Combined with Point Injection

Sun Lisi [12] divided 62 patients with cervical spondylosis into two groups in equal quantity. The two groups of patients were treated with acupuncture first, using Fengchi point and conventional acupuncture at Quchi, Waiguan and Tianzhu points. In the injection group, fengchi, Quchi and Handsanli were injected with salvia miltiorrhiza injection and adenosine cobalamine. Both groups of patients received two courses of treatment. Results The total effective rate of injection group was 96.78%, which was better than that of control group. Tian Mingyue, Zhang Xin et al. [13] selected 64 patients with cervical spondylosis, half of whom were assigned to the ozone water group and the rest to the acupuncture group. Patients in the ozone water group were selected from bilateral fengchi, Tianzong, Tianding, Quchi and corresponding Jiaji points daily, and were injected with ozone water at point. Acupoint selection in acupuncture group was the same as above, and only conventional acupuncture was used. After treatment, the symptoms of patients in the ozone water group were less than those in the other group. Therefore, it has been proved that acupuncture combined with injection at corresponding points has great effectiveness in the rehabilitation of cervical spondylosis, which can relieve patients' pain and relieve clinical symptoms more on the basis of acupuncture, and has the value of promotion.

#### 3.3.3. Acupuncture and Moxibustion with Massage or Electroacupuncture

Wang Yi [14] divided 50 patients into the treatment group and 50 patients as the reference group. All the 100 patients were treated with warm acupuncture first, and the observation group was treated with bone-setting on this basis. The results showed that the total response rate in the reference group was 70.00%, 18.00% lower than that in the treatment group, only 2 patients in the treatment group had a slight recurrence at 180 days follow-up, a full 16% fewer than in the reference group, and the average time of symptom disappearance and hospitalization in the observation group were lower than those in the control group; Fan Gan [15] set 51 patients with vertebral artery cervical spondylosis as the control group, and the same number of patients as the treatment group. The control group was treated with electroacupuncture first, and then the treatment group was not only treated with electroacupuncture, but also warm acupuncture based on the use of electroacupuncture. Finally, the quality of life, disease symptoms, dizziness and pain degree of patients in the two groups were improved, and the situation of the treatment group was better than the control group. Zhao Xiaodong and Bai Xuesong [16] set up observation group and control group, with 50 participants in each group. The control group was treated with warm acupuncture and moxibustion, and the observation group was not only treated with warm acupuncture and moxibustion plus bone-setting manipulation.

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#### 3.3.4. Acupuncture and Moxibustion with Traditional Chinese Medicine Decoction

Tang Zhong [17] selected 82 patients with cervical spondylotic radiculopathy as observation objects and divided them into a general group (41 cases) according to treatment methods. The decoction group (41 cases) was combined with Guizhi Gegen decoction (the prescription mainly consisted of Astragalus membranaceus, salvia miltiorrhiza, caulis spatholobus, Radix puerariae, Cassia twig, Angelica sinensis, Achyranthes bidentata, Sangjisheng, paeonia alba, Ligusticum chuanxiong, prepared glycyrrhiza glycyrrhiza and safflower) to analyze the prognostic effect of these patients. Results: The total effective rate (38/41) VS (30/41) was significantly compared between the two groups. Ku Zigang [18] treated 48 patients with cervical spondylosis with acupuncture combined with Gegen Decoction. After 3 courses of treatment, the total effective rate of all patients was 87.5%. Conclusion: TCM acupuncture therapy combined with Guizhi Gegen Decoction has significant clinical effect, which can improve the clinical treatment effect, relieve pain, improve the quality of life, promote the disappearance of clinical symptoms, and has good prognostic value in patients with cervical spondylotic radiculopathy.

#### 4. Conclusion

At present, there are a variety of Western medicine treatments for cervical spondylosis, including surgical therapy and non-surgical conventional treatment, but oral western medicine has large side effects, high risk of surgical treatment and high treatment cost. Acupuncture and moxibustion is favored by the majority of patients with cervical spondylosis because of its good curative effect, simple operation and moderate price. Jiaji acupoints are often used for acupuncture, or randomized control method is often used in root clinical trials, which lacks multi-center, large-sample studies, and the use of blind method is generally lacking. (2) There are various diagnostic criteria and efficacy criteria, and there is a lack of a unified standard; (3) At present, most literatures are about clinical efficacy, and there is a lack of literatures that can be referred to to explore the mechanism; (4) Most of the literature studies are focused on the short-term efficacy, and there are few literatures tracking the long-term efficacy; (5) Traditional acupuncture and moxibustion pays much attention to a "form" and "spirit", especially for patients, but this is rarely mentioned in the research literature. Although there are some such problems at present, most patients are still impressed by the significant efficacy of acupuncture and moxibustion in the treatment of cervical spondylosis and highly respected. Therefore, in the future research and treatment, we should constantly improve the deficiencies and vigorously promote the application and development of acupuncture and moxibustion technology in cervical spondylosis.

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