

Analysis and Evaluation on Acupuncture Treatment of Cervical Pains in the UK ---A Study of 74 Cases

Dan JIANG¹, Ming Zhao CHENG²

Abstract Cervicodynia, or cervical pain or neck pain, is a common condition in modern societies. There are particularly higher occurrences in white collar workers who use the computer for their work. Modern societies' internal and external injuries, such as car accidents and stress, increase the morbidity of cervical pain. As it is effective and safe, acupuncture has become one of the most used treatment method in the western world. 11% of the total number of patients seen recently in the clinic is neck pain patients. Within the acceptable treatment frequency, a combination of a variety of acupuncture techniques was used: selection of acupoints according to syndrome differentiation; local selection of acupoints and one needle technique were used. When necessary, Chinese herbal medicines were used as assistance to reach an appropriate treatment level and the best results. From the feedback of 74 questionnaires of the patients who received the treatment, this report aims to evaluate objectively the results and the safety of acupuncture treatment to cervical pain. Of the 74 cases, 68 (91%) had routine orthodox medicine treatments and the results were negative. 18 cases (24%) had other complementary treatments and the results were negative. In contrast, acupuncture treatments had better results. 16 cases (22%) had the pain under total control, 29 cases (39%) much better, 20 cases (27%) better, 9 cases (12%) no change and no case was worse. The total effective rate was 88%. These results confirm that acupuncture is a safe and effective treatment for cervical pain. Using a combination of traditional Chinese acupuncture techniques to reach an appropriate treatment level is a key element in obtaining these results.

1, **Dan Jiang**: MMedSci, FATCM, MBAcC. TCM Consultant issued by WFTMS; President of Hallam Institute of TCM Sheffield UK 2, **Mingzhao Cheng**: MSc., PhD., FRSM., Traditional Chinese Medicine Programme Leader, Middlesex University, UK

Introduction:

Cervicodynia, or cervical pain or neck pain, is a common condition in modern societies. There are particularly higher occurrences in white collar workers who use the computer for their work. Modern societies' internal and external injuries, such as car accidents and stress, increase the morbidity of cervical pain. In the last 10 years of practice in the UK, neck pain was the most prevalent condition treated and it accounted for 11% of the total number of our patients.

The cervical vertebrae are close to the cranial cavity, particular the basilar artery and the vital centre. Therefore, some manipulation therapies, such as chiropractic, osteopathy, physiotherapy and massage, can be very difficult in giving appropriate level of treatments. If the manipulation is too strong, it may make the condition worse, or even causing serious complications. If the manipulation is too light, the level of treatment may not be reached and the results will not be satisfactory. In contrast, acupuncture treatments may be more appropriate. It is safe and effective. Chinese acupuncture, which uses a combination of a variety of techniques, can achieve the best treatment level and the best possible results.

From January 2002 to December 2004, questionnaires were sent to patients with cervical pain and 74 were returned and analysed.

Cases

Total: 74

Sex: Male 33, Female 41

Age: <30 years 4, 30-50 33, >50 37, Middles to old age 70 (95%).

Occupation: Office worker (company clerk, accountant, lawyer, journalist, doctor and student) 45 (61%), housewife 12 (16%), manual worker (builder, warehouse keeper, security guard) 17 (23%).

Main causes of cervical pain: Whiplash (Muscular and ligament spasm) 14 (18.9%); Other injuries 12 (16.2%), Spondylitis and spondylosis 48 (64.9%).

Since the onset, only 5 case used Chinese acupuncture as their first choice of treatment (6.7%). 69 cases had received routine orthodox treatments or other complementary treatment before using Chinese acupuncture. The following table show the results of routine orthodox treatments and other complementary treatments.

Table 1. 68 cases who had received routine orthodox treatments

	Effective for a short time	No effect
Anti-rheumatics	12	56
Anti-inflammatory tablets	20	48
Blocking injection	5	
Tranquilisers	6	
Anti-depressants		5

Table 2. 28 cases who had received complementary treatments other than Chinese acupuncture

	Effective for a short time	No effect
Chiropractic	4	5
Physiotherapy	12	
Osteopathy		5
Wes Acupuncture		2

Note: using anti-rheumatics and Anti-inflammatory tablets are not completely without effects. It is in reality can not control the condition and the patients turn to acupuncture.

Table 3. The relationship between the causes and the length of cervical pain

	<3 weeks	< 1 year	> 1 year
Whiplash	5 (35.7%)	5 (35.7%)	4 28.6%)
Other Neck Injuries	4 (33.0%)	4 (33.3%)	4 33.3%)
Spondylitiy /Spondylosis	2 (4.2%)	20 (47%)	26 54.1%)

Note: some patients had 2 or more of the above conditions

Treatments

Acupuncture

1. Main acupoints

Neck Jiayi Pang Points: cervical vertebrae 1-7, 1 cun from the middle of the inter-vertebral gap. Use 2-3 pairs each time according to the location of the cervical pain. Use 1 cun needles and direct them 45° obliquely towards the vertebrae. Do not manipulate by lifting, thrusting or twisting.

Bai Hui (DU20), Feng Chi (GB20), Wai Guan (SJ5) and Zu Lin Qi (GB41)

2. Assisting Acupoints

Cervical vertebrae 2-3: Yu Zhen (BL9), Tian Zhu (BL10)

Cervical vertebrae 4-5: Tian Ding (LI 17), Fu Tu (LI 18)

Cervical vertebrae 6-7: Bi Nao (LI 14), Jian Yu (LI 15)

The following assisting points can be chosen according to individual accompanying symptoms:

Dizziness: calming the liver to expel wind. Xuan Li (GB6), Shuai Gu (GB8) Yi Feng (SJ17)

Depression: activate qi to clear depression. Shen Ting (DU 24), Shang Xing (DU 23)

Migraine: sooth the liver and relieve depression. Tai Yang (EX-HN5), Yang Bai (GB14)

Nervousness: calm the liver and nourish the heart. Tai Chong (LR 3), Jian Shi (PC 5)

Fatigue: strengthen the spleen and nourish the kidney. San Yin Jiao (SP 6) Zhao Hai (KI 6)

Insomnia: clear away and relieve stagnated heat. Da Zhui (DU 14), He Gu (LI 4)

3. Strengthening Acupoints

San Yang Luo (SJ 8), Hui Zong (SJ 7), Zhi Gou (SJ 6), Wai Guan (SJ 5). Select one of the above points according to sensitive tender points.

Assisting Treatments

1. Frequency spectrum lamp

2. Chinese patent medicine: Jiu Wei Qiang Huo Wan, Jia Wei Xiao Yao Wan, Jiu Ding Guan Jie Wan, Chuan Xiong Cha Tiao Wan, Wang Bi Chong Ji.

Choose the above formula according to the individual's conditions.

Results

1. Total control: all clinical symptoms and signs cleared 16 cases

2. Much better: all clinical symptoms and signs much improved. There is still slight discomfort, but still able to maintain normal life even without further treatments 29 cases

3. Better: all clinical symptoms and signs improved 20 cases

4. No changes: clinical symptoms and signs not changed. 9 cases

5. Worse: clinical symptoms and signs worse 0 cases

Table 4. The relationship between results and Chinese acupuncture treatment methods

	Acupuncture	Acupuncture and patent herbs	Acupuncture and loose herbs	Acupuncture and external herbs
Total control	4	12		2
Much Better	5	22	3	3
Better	2	17	1	1
No changes	1	8	0	0
Worse	0	0	0	0
Total	12	59	4	6

Notes: 1. Loose Chinese herbs are used in severe cases only when patent herbs and acupuncture combination can not control the condition. A patient can have used patent herbs earlier and later uses loose herbs. 2. External herbs usually are used in combination with patent herbs.

Discussion

1. Acupuncture treatment

Cervicodynia is one of the common conditions for patients to seek acupuncture treatment. In the West, the patient can accept a treatment frequency of less than one treatment per week. Using a combination of traditional Chinese acupuncture techniques to reach an appropriate treatment level is a key element in achieving good results.

1). Local acupoints.

Select Jiaji Pang points along the cervical spine according to the diseased vertebrae. Jiaji Pang points are the points 1 cun away from the middles of the back midline. They are 0.5 cun outside of the normal Jiaji points, which are 0.5 cun away from the back midline. From experiences, patients will feel very painful or severe reactions after treatments if Jiaji points are used normal, since the acupoints are close to the inflammation and the injured locations in cases of local inflammation and facet joint syndromes. This is unacceptable to many Western patients. The points that are 0.5 cun outside of the Jiaji points are exactly located in the tense neck muscles. From the anatomical point of view, this explains the reason that relaxing the local muscular strain will effectively relieve pain. Therefore, if the patient has pain between C2 and C3, with headache and dizziness, C2 and C3 Jiaji Pang points will be selected. If the patient has pain between C6 and C7, with pins and needles in the arms and formication in the hands, C6 and C7 Jiaji Pang points will be selected. These local points ensure that local diseased foci are treated properly to an appropriate level; muscles are relaxed, local circulation improved. All these are important factors for achieving good effect in a short time.

2). Points selected according to syndrome differentiation (Bian Zheng points): points are selected after considering the whole body's diseases, the patient's constitution and special characteristic of the individual case.

a. Main acupoints: all patients will have these points

Bai Hui (DU 20): the Du channel is the collection of the whole body's yang qi. Bai Hui is the point on the top, the yang of all yang and the commander of all qi regulations. No matter whether it is qi stagnation, qi deficiency, yin deficiency, blood deficiency or a mixture of deficiency and excess, Bai Hui must be selected. Needling the point which commands all the qi will make it easier to relieve all other channels stagnation.

Wai Guan (SJ 5) and Zu Lin Qi (GB41): these two are a pair of the eight extra-ordinary points. They regulate the body's qi disturbance. There is pain because of blockages. No matter whether this case is yin, yang, qi and blood deficiency, or phlegm, dampness, stagnation or wind in excess, if there is pain, there must be blockages. Therefore, the first treatment is to regulate the disturbed qi. This is a necessary means to achieve good and instantaneously effects.

b. Assisting acupoints: selected according to individual conditions

Differentiate the diseases and the syndromes of individual patients and then select these points. For example, if it is an external injury to the neck, and the

differentiation result is wind and dampness blocking the channels with qi and blood stasis, then Feng Chi (GB20), Qu Chi (LI 11), Fei Shu (BL13), Pi Shu (BL20) and San Yin Jiao (SP 6) will be selected;

If it is cervical Spondylitis in the menopausal period, and the differentiation is liver and kidney yin deficiency, empty heat mixed with dampness blocking the channels, the Gan Shu (BL18), Shen Shu (BL23), Zhao Hai (KI 6), Tai Xi (KI 3 and Tai Chong (Liv 3) are used.

The assistant points assist the main points to form a regulatory mechanism for the whole body and regulate the unstable situation. This is an important step in achieving long term effects. After treatment, the patients feel better in the whole body. Many other accompanying symptoms are also better. This is the key technical advantage of Chinese acupuncture.

3) Strengthening acupoints

After the above treatment finishes and all needles are removed, ask the patient to relax and take a sitting or standing position. When standing, the patient must hold on to the couch to steady the body when receiving a strong stimulation. Hold the patient's arm on the pain side. Use a 1.5 cun (40 mm) needle and insert it perpendicularly to one of the following acupoints: San Yan Luo (SJ 8), Hui Zong (SJ7), Zhi Gou (SJ 6) or Wai Guan (SJ 5). Before needling, thumb these points between the ulna and the radius and slide the thumb up and down to find and select the most sensitive point. The depth of the insertion is 1 cun. When the needle is inserted to the sensitive point, the patient will feel a marked achy feeling or even a pain (before needle, explain to the patient that he/she will feel a stronger needling sensation and the reason why this method is used). According to the patient's constitution and tolerance level, manipulate the needle by twisting and lifting and thrusting from slight manipulation to medium and strong manipulation.

Results:

a. If the local points and the Bian Zheng points are effective, and the affected area is relaxed, the patient's reaction to this needling should not be too strong, and the acupuncturist will also feel the needling sensation is quite loose. Therefore, it is only necessary to needle this point briefly. The patient can be told that the pain will be much better.

b. If the local points and the Bian Zheng points are effective, but the affected area is not relaxed, or the local soft tissues and nerves are relaxed but the facet joints syndrome, the disc protrusion, the compressed and incarcerated nerves are not released due to chronic inflammation, adhesion and stagnation, the effect of needling will not be very noticeable. Sometimes the pain relief is very short and pain comes back very soon. In these situations, the points between Wai Guan (SJ5) to San Yang Luo (SJ8) will be very sensitive. It will feel achy and possibly quite a strong pain. When needling, the acupuncturist will feel noticeable heaviness and tightness in the needle, or even feeling the needle being "sucked in". At this time, according to the patient's constitution and tolerance level, manipulate the needle by twisting

and lifting and thrusting from slight manipulation to medium and strong manipulation, and give the point an intermittent but strong stimulation. At the same time, ask the patient to turn the neck from side to side and move the shoulders and the upper arms. The patient will feel the tight neck muscles suddenly relaxing, the neck, the occiput, the shoulders and the upper back also suddenly relaxed. Some patients feel the neck pain transfers to the forearm. After removing the needle in the forearm, the pain at this strengthening point will disappear and no after pain will remain.

c. It is not suitable applying strengthening needling if the patient's constitution is weak, or be sensitive to needles or has a phobia for needles. For chronic cases, who had received many other treatments, only using strengthening needling can one achieves better results than other treatments.

2. Assisting Treatments

Chinese acupuncture is the main treatment for these 74 patients. All 74 cases received acupuncture treatment. However, acupuncture treatment alone, particularly for these western patients who can only have one treatment per week, can just be effective from the minor or short term cases. For the medium and long term cases with medium to severe symptoms, the treatment will not be effective as it is not potent enough. Therefore, assisting treatments will be necessary.

1) Chinese herbal medicine (CHM)

Of the 74 cases, Acupuncture only 12 cases (16%)

Assisted with CHM 62 cases (84%) Assisted with patent herbs 59 cases (79%) Assisted with loose CHM 4 cases (5%) Assisted with external herbs (pastes, oils and lotions)6 cases (8%)

Note: Loose Chinese herbs are mostly used in severe cases only when patent herbs and acupuncture combination can not control the condition. External herbs usually are used in combination with acupuncture and patent herbs.

Results

The significance of receiving CHM treatment are:

a. Maintain the effects of acupuncture in relieving spasm, local relaxation, stopping pain, calming and regulation of the whole body

b. Clear away heat and dampness or remove wind away and ease pain. They can make an anti-inflammatory effect and stasis dissipate. For inflammations in deeper tissues and joints, CHM is better in clearing inflammation than acupuncture alone

c. Treat the root and strengthen the vital qi, improve the unstable state of the body. This can be positive in helping enhance the responses to acupuncture

2) Frequency spectrum lamp treatment

Heat stimulation at the local acupuncture area can improve local blood circulation and enhance the absorption of inflammation. It can not only make the patient feel comfortable during retaining the needles, but

also enhance the effects of acupuncture. However, the time and distance must be kept properly, particularly those patients with sensitive skins, to prevent burns to the skin.

3. Relationship between treatments and results

1) Causes of neck pain and treatment results

Table 5. Relationship between causes of neck pain and treatment results

	Total Control	Much Better	Better	No Change
Whiplash	7 (50%)	2 (14%)	2 (14%)	3 (22%)
Other Injuries	6 (50%)	4 (33.4%)	1 (8.3%)	1 (8.3%)
Spondylitis /Sondylosis	8 (16.7%)	22 (45.8%)	12 (25%)	6 (12.5%)

2) History of neck pain and treatment results

Table 6. Relationship between length of neck pain and treatment results

	Total Control	Much Better	Better	No Change
Acute (<3weeks)	6 (75%)	1 (12.5%)		1 (12.5%)
Subacute (<3 years)	5 (14.7%)	15 (44.1%)	9 (26.5%)	5 (14.7%)
Chronic (>3years)	5 (15.6%)	14 (43.8%)	10 (31.3%)	3 (9.3%)
Total cases	16	29	20	9

3) Number of treatments and results

Table 7. Relationship between number of treatments and treatment results

	Total Control	Much Better	Better	No Change
1-3 times	5 (17.9%)	5 (17.9%)	10 (35.7%)	8(28.5%)
4-10 times	7 (25%)	14 (50%)	6 (21.4%)	1 (3.6%)
>10 times	4 (22.2%)	10 (55.6%)	4 (22.2%)	0
Total	16	29	20	9

4) Onset and results

Table 8. Relationship between onset and treatment results

	Total Control	Much Better	Better	No Change
First time	10 (31.2%)	11 (34.4%)	6 (18.8%)	5 (15.6%)
Recurrent	6 (14.3%)	18 (42.9%)	14 (33.3%)	4 (9.5%)
Total	16	29	20	9

When analysing the relationship between Chinese acupuncture and the treatment results mentioned above, it is possible that

1. In terms of the causes and the results, neck pain caused by whiplash and injuries can be controlled completely in 50% of the cases. Most neck pain caused by spondylitis and spondylosis are much better or better.

2. In terms of the length of the condition and the results, 75% short-term cases can be controlled, whereas the control rate of the longer-term cases is much lower, although the much better and better cases are relatively higher.

3. In terms of the numbers of treatments and results, in cases that had less than 3 treatments, control, much better and better are evenly spread and the no change rate is high. This indicates that if Chinese acupuncture does not give a quick result, the patients will not have confidence in continuing the treatments. Therefore, the no changes rate is high. In cases that had more than 4 treatments, particularly those had more than 10 times, the much better rate is evidently increased, and the no changes rate is reduced to 0. Therefore, the most important factor to get better is to continue to have treatments for a long time.

4. Onset and results: first time onset have an obviously high control rate, whereas the recurrent cases have a high rate in much better and better cases.

Conclusions

Chinese acupuncture treatment is an effective and safe treatment method for treating Cervicodynia. Acupuncture treatments are mostly used in private clinics outside the national medical systems in the West, patients' affordability must be considered. Therefore, no more than once per week would be appropriate. In treatment, a combination of a number of Chinese acupuncture techniques should be used to achieve the best results during the treatment periods. Meanwhile, according to the individual conditions, adding Chinese herbal medicine may be necessary to achieve these best results.

Chinese acupuncture treatments are suitable for acute, subacute and chronic neck pain, and it is particularly effective for inflammation cases.

Typical Cases

1. Acute attack of a chronic neck pain

Female, 59 years old, doctor

Neck pain on and off for 7 years. Acute attack for 1 week. Been to have massage for a few times, but it makes the pain worse. In recent days, she has been writing in front of a desk. A week ago, the pain suddenly become acute in the neck, which radiates to the left shoulder and the upper back. Movements of the neck, upper back and left shoulder are restricted. Because of the pain, it is very hard for her to lie flat on the back and she must lean on a chair. She is agitated and unable to sleep due to the pain. She has routinely taken anti-rheumatics for a week and

the pain seems to be slight better, but it is still very painful and movements are restricted. The joints are stiff.

On examination, the neck muscles on both sides are tense. There are evident tenderness and swelling in the area of the 3rd, 6th and 7 cervical vertebrae. Neck movements are restricted, particularly the left side. Left shoulder movements are restricted. Pink tongue with thin, white coating, wiry pulse.

Treatments:

Bai Hui (Du 20), Feng Chi (GB20), Neck Jiaji pang points 3, 6 and 7, Wai Guan (SJ 5), Zhu Lin Qi (GB41), Zhao Hai (KI 6), Jian Yu (LI 15), Bi Nao (LI 14).

Needles are retained for 20 minutes.

After removing all the needles, select a point in the left forearm. It was found that the pressure pain point is on Hui Zong (SJ 7) between the ulna and the radius. Twisting, lifting and thrusting the needle from slight manipulation to strong manipulation, and ask the patient to move her neck. Alternation the needling manipulation and the neck movements for 5 minutes.

After removing the needle, the patient felt the pain in the neck and the left shoulder was much better and she could move autonomously. She was then told to move her neck by extension, bending and turning. One week later, the patient came back to report that all pain has disappeared and the neck and the shoulder moved freely.

2. Chronic neck pain caused by wear and tear

Male, 53 years old, company manager

Neck pain on and off for more than 10 years, and constant neck pain for more than 2 years. X-ray diagnosed as C4-5 osteoarthritis. Work in front of a desk all year long. The neck pain and ache was getting worse gradually. 2 years ago, his car was hit from behind by another car when he was driving. There was not pain at the time, but since then there have been more neck pain attacks and they come more frequently. Upper back is also achy and tired. Left arm is numb and there is formication. In recent years, neck pain is constant and sometimes it can be very severe and radiating to the top of the head and the occiput. He is on anti-rheumatics all year round, but pain killers make the stomach very uncomfortable and he has to stop them. He has received chiropractic, osteopathy and physiotherapy treatments, but there has been no substantial improvement. Therefore, he decided to have acupuncture. In recent days, he has headache and bad sleep due to very busy work.

On examination, there are tenderness from C2 to C7, and swelling in C4 and C5. Pink tongue with thin, white coating, wiry pulse.

Treatments:

Bai Hui (Du 20), Feng Chi (GB20), Neck Jiaji pang points 4,5, and 6, Gan Shu (BL18), Wai Guan (SJ 5), Zhu Lin Qi (GB41), Tai Chong (LR3)

Qiu Wei Qiang Huo Wan 15 pills twice per day

Jia Wei Xiao Yao Wan 15 pills twice per day

After first acupuncture, used San Yang Luo (SJ 8) to strengthen the effects. After this treatment, the patient felt

the neck was much looser, but the movements were still restricted. After 5 treatments over 5 weeks, all pain disappeared, but there was still pain attacks when over extending or in an improper position. These pains can be cleared after acupuncture. Following up for 5 more treatments on once every fortnight interval, the neck's swelling and tenderness was completely cleared.

Reference:

- [1] Li Jia, A combined therapy for cervical spondylopathy <Journal of Chinese Medicine> No76 Oct 2004 P53
- [2] Li Hongchao et al Introduction to the points singly used for stiff neck <Journal of Chinese Medicine> No76 Oct 2004 P56
- [3] Huang Liemin, Comparison of the effects of electro-acupuncture plus cupping with that the electrical pulse therapy for different types of cervical spondylopathy <Journal of Chinese Medicine> No76 Oct 2004 P56
- [4] Zhao Tianping et al Observation on therapeutic effect of 40 cases of cervical spondylosis of vertebralarterial type treated with Yangzi Time point-open method <Chinese Acupuncture & Moxibustion > Vol21 No4 2001 P203
- [5] Lin Xinlie et al Superficial view on acupoint therapy for treatment of cervical spondylosis of nerve root type<Chinese Acupuncture & Moxibustion >Vol 21 No6 2001 P371

