

Analysis of the Effectiveness of TCM Treatment of Multiple Sclerosis

Abstract

Modern biomedicine currently does not have a satisfactory method to treat multiple sclerosis (MS). In this paper the author summarises her experience of treating MS using acupuncture and Chinese herbal medicine by analysing the treatment of 20 patients. The advantages and disadvantages of different treatment modalities are assessed, with emphasis on the importance of choosing the correct method and dosage of acupuncture in order to successfully manage the various symptoms and stages of MS. In the experience of the author the key to successful treatment of MS is an integrated approach that employs both TCM pattern differentiation and biomedical diagnostic findings.

Multiple sclerosis (MS) is a disease involving demyelination of the nerves of the central nervous system. No clear causal explanation has been found. It may be related to an immune response that disrupts the nervous system and produces degeneration and demyelination in the brain, spinal cord and optical nerves. It can involve a variety of symptoms including weakness and tingling, paralysis of the limbs, diplopia and ataxia.

There is a high incidence of MS amongst Caucasian people in Europe. Incidence in the UK is between 40 and 120 per 100,000¹ and has recently been increasing. MS has been rare in Asia in the past, although its incidence has recently been increasing in China.^{2, 3} Conventional treatment of MS involves the administration of intravenous steroid infusions, which can provide temporary relief for those in the acute or progressive stages of the disease. The disease usually quickly recurs after such treatment, however, and steroids have unpleasant side-effects. After patients have been diagnosed with MS in the UK they are usually given a certificate of disability to allow them to receive social benefits, nursing and treatment for their symptoms.

This paper reports on the successful treatment of 20 patients with MS using a comprehensive treatment method of acupuncture and herbal medicine, in which many of the patients experienced satisfactory control of their symptoms.⁴

Report of typical cases

Case one: A sudden recurrence of MS that was completely controlled during the acute stage

A 43 year old shopkeeper, Ms B, presented at the clinic complaining that her MS had suddenly returned one month ago. She had been diagnosed with MS six

years previously through CT scan after reporting weakness of her left arm, leg and eyelid, as well as other mild symptoms that all disappeared in a short time. Since then she had been living a peaceful life without disability. One month prior to presenting at the clinic her health had suddenly deteriorated, with paralysis of the limbs on the right side of her body, ataxia, weakness of her right eyelid (which would not open), diplopia (double vision) and numbness on the right side of her face. She was admitted to hospital for three days to receive methylprednisolone infusions. After she was discharged her symptoms became even worse. The weakness of the right eyelid spread to the left and the diplopia now affected both eyes. She reported feeling stressed and depressed, and suffered from insomnia and anxiety, hot flushes and constipation. She came for treatment at the author's clinic after previously receiving effective herbal treatment of her psoriasis there.

Diagnostic information: paralysis of the right eye lid, diplopia of both eyes, hemianopsia of the left eye, muscular tension of the right arm and leg, Babinski reflex on the right side positive, knee reflex negative; ataxia confirmed by difficulty performing finger to finger and finger to nose tests. Tongue: dark red with little coating. Pulse: wiry and fine.

Differentiation of syndromes: Liver and Kidney yin deficiency causing interior Liver wind.

Treatment:

- Scalp acupuncture: central line, top and middle regions of the left motor area, foot motor-sensory area and chorea-trembling control area.
- Body acupuncture: Quchi L.I.-11, Shousanli L.I.-10,

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Keywords: TCM, multiple sclerosis, MS, acupuncture, Chinese herbal medicine.

Hegu L.I.-4, Taichong LIV-3 with reducing method; Zusanli ST-36 with reinforcing method; Tongziliao GB-1 with even method. All points retained for 30 minutes.

- Herbal prescription: Sheng Di Huang (Rehmanniae Radix) 15g, Huang Qi (Astragali Radix) 30g,⁵ Dang Gui (Angelicae sinensis Radix) 10g, Du Zhong (Eucommiae Cortex) 15g, Chuan Niu Xi (Cyathulae Radix) 15g, Bai Shao (Paeoniae Radix alba) 30g, Gou Teng (Uncariae Ramulus cum Uncis) 10g, Shi Jue Ming (Haliotidis Concha) 10g, Ye Jiao Teng (Polygoni Multiflori Caulis) 10g, Mai Men Dong (Ophiopogonis Radix) 10g and Zhi Gan Cao (Glycyrrhizae Radix preparata) 5g. These herbs were given as a decoction, to be boiled and drunk twice daily for five days in a week.

After maintaining weekly treatment for another month, her vision was completely clear, she could walk unaided and her ataxia had disappeared.

At her second visit one week later her right arm and leg felt significantly better, with less numbness and weakness. She no longer experienced diplopia when looking to the right, although it was still present when looking to the left. Her hot flushes, anxiety and insomnia had also improved. For her second treatment the same acupuncture points were repeated. Her herbal prescription was also repeated with the addition of Chuan Lian Zi (Toosendan Fructus) 10g and Bai Ju Hua (Chrysanthemi Flos) 10g, prescribed for another five days.

By the time of her third and fourth visits her eyelids were gradually regaining the ability to open, the tension of her limbs had disappeared and she was now able to walk and hold objects in her hand. She still experienced mild ataxia.

After maintaining weekly treatment for another month, her vision was completely clear, she could walk unaided and her ataxia had disappeared. She was again able to go about her life as normal.

This case belongs to the first class of recovery (see below for recovery standards criteria).

Case two: A chronic case of gradually deteriorating MS which stabilised after TCM treatment.

Ms K, 62 years old, had been diagnosed with MS 20 years previously. Over the last three years, however, her symptoms had gradually worsened. Previously she had experienced only mild symptoms and had been able to maintain a relatively normal life. She was now experiencing weakness of her arms and legs on both sides of her body (worse on right side),

poor vision in her right eye and ataxia that made it difficult to stand and walk such that she needed to use a walking stick. She had recently developed an involuntary tremor of the affected limbs and head. She was also experiencing palpitations and a sensation of trembling in her chest. Additionally, her bowels were sometimes sluggish and at other times were loose. Her symptoms had become too uncomfortable to bear, which was why she came for TCM treatment.

Diagnostic information: neurological reflexes of the legs were over-active; Babinski reflex was positive; finger to finger test of ataxia was strongly positive. Tongue: deep-red. Pulse: wiry-fine.

Differentiation of syndromes: Liver, Spleen and Kidney qi and yin deficiency with empty heat causing interior wind.

Treatment:

- Scalp acupuncture: central line, top and middle regions of motor area, chorea-trembling control area.
- Body acupuncture: Yinlingquan SP-9, Sanyinjiao SP-6 and Zusanli ST-36 with reinforcing method; Taichong LIV-3 with reducing method.
- Herbal prescription: Sheng Di Huang (Rehmanniae Radix) 15g, Huang Qi (Astragali Radix) 30g, Dang Gui (Angelicae sinensis Radix) 10g, Xuan Shen (Scrophulariae Radix) 15g, Chuan Niu Xi (Cyathulae Radix) 15g, Gou Qi Zi (Lycii Fructus) 10g, Gou Ji (Cibotii Rhizoma) 10g, Yi Yi Ren (Coicis Semen) 30g, Huang Bai (Phellodendri Cortex) 10g and Zhi Gan Cao (Glycyrrhizae Radix preparata) 5g. These herbs were given as a concentrated powder, of which six grams were taken twice daily.

At her second visit the palpitations and sensation of trembling in the chest were better, although the tremor of her head still occurred daily. For her second treatment the same acupuncture points were used, but electro-stimulation was added in order to provide stronger treatment. The herbal prescription was modified as follows: Sheng Di Huang (Rehmanniae Radix) 15g, Gou Teng (Uncariae Ramulus cum Uncis) 10g, Shi Jue Ming (Haliotidis Concha) 30g, Qiang Huo (Notopterygii Rhizoma seu Radix) 10g, Rou Cong Rong (Herba Cistanches) 15g, Huang Qi (Astragali Radix) 30g, Tian Ma (Gastrodiae Rhizoma) 10g, Gui Ban (Plastrum Testudinis) 10g, Lu Jiao Shuang (Cornu Cervi Gelatinum) 10g, Ye Jiao Teng (Polygoni Multiflori Caulis) 15g and Zhi Gan Cao (Glycyrrhizae Radix preparata) 5g. This prescription was then varied according to her symptoms over the next three months, with acupuncture given once a week. The

result was that the tremors of her head and limbs were now controlled, her bowel movements were regular and although she still experienced weakness in her legs, she was able to manage everything in her daily life.

This case belongs to the second class of recovery (see below).

Case three: Chronic progressive MS with an acute deterioration of symptoms that stabilised with TCM treatment.

Ms H, 52 years old, had been diagnosed with MS six years previously, during which time her condition had become progressively worse. She experienced weakness in her legs, ataxia, constipation and dribbling of urine with frequent incontinence. She also suffered from depression, anxiety and insomnia.

Diagnostic information: weakness of lower part of legs with grade III myodynamia, decreased knee reflex, positive Babinski reflex, finger to finger test of ataxia positive. Tongue: pale and plump with little white coating. Pulse: deep and fine.

Differentiation of syndromes: Spleen and Kidney qi and yin deficiency causing accumulation of turbid dampness.

Treatment:

- Special acupuncture technique: needling the special Jiaji points⁶ in line with Pishu BL-21, Ganshu BL-18 and Shenshu BL-23.
- Scalp acupuncture: central line, top and middle regions of motor area on both sides.
- Body acupuncture: Qihai Ren-6, Zhongji Ren-3, Sanyinjiao SP-6, Zusanli ST-36 with reinforcing method; Taichong LIV-3 with reducing method.
- Herbal prescription: Cang Zhu (*Atractylodis Rhizoma*) 10g, Huang Bai (*Phellodendri Cortex*) 10g, Zhi Mu (*Anemarrhenae Radix*) 10g, Du Zhong (*Eucommiae Cortex*) 15g, Chuan Niu Xi (*Cyathulae Radix*) 15g, Yi Yi Ren (*Coicis Semen*) 30g, Gou Ji (*Cibotii Rhizoma*) 10g, Hua Shi (*Talcum*) 15g, Chuan Xiong (*Chuanxiong Rhizoma*) 10g, Du Huo (*Angelicae pubescentis Radix*) 10g and Zhi Gan Cao (*Glycyrrhizae Radix preparata*) 5g. These herbs were given as a decoction for one month until the ataxia and white tongue coating disappeared, bowel movements were regular and normal urination was resumed.

During subsequent visits, the above prescription was prescribed in concentrated powder form in order to continue to strengthen the Spleen and Kidney. If she experienced deterioration of her symptoms during treatment (i.e. more weakness and ataxia), decoctions were resumed for a short time and the frequency of acupuncture treatments was increased. In general, however, she

remained stable and able to manage everything in her life; she still, however, experienced weakness in her legs (which have never completely improved despite regular acupuncture and herbal medicine for over two years).

This case belongs to the second class of recovery (see below).

Case four: A severe case of MS with upper motor neuron damage, where the severe attacks of spasms and limb tension were improved after TCM treatment

Miss B, 32 years old, had been diagnosed with MS 15 years previously and had experienced gradual deterioration of her condition over the last year. Her condition was severe; she was unable to live independently and was permanently confined to her bed or wheelchair. When she first presented in the clinic she was in a wheelchair and suffering from severe attacks of muscle spasms with extreme tightness and hypersensitivity of the muscles of her limbs. She also experienced intense shaking of her head and limbs whenever she was touched (even gently) or if she became emotionally agitated. Her head was constantly shaking and she experienced urinary incontinence. During her recent stay in hospital she had received support from care workers, but did not receive medical treatment. Because she was unable to move from her wheelchair it was necessary to examine and treat her in a seated position. Her tongue was red with a white coating and her pulse was deep and wiry.

Differentiation of syndromes: Liver wind agitating within.

Treatment:

- It was initially impossible to use acupuncture, because even the slightest touch (during pulse diagnosis for example) would set her hand trembling. She was therefore initially given herbal medicine only.
- Herbal prescription: Gui Ban (*Plastrum Testudinis*) 10g, Huang Qi (*Astragali Radix*) 30g, Sheng Di Huang (*Rehmanniae Radix*) 30g, Wu Gong (*Scolopendra*) 10g, Bai Shao (*Paeoniae Radix alba*) 30g, Mai Men Dong (*Ophiopogonis Radix*) 10g, Bie Jia (*Tryonycis Carapax*) 10g, Jiang Can (*Bombyx batryticatus*) 10g, Dang Gui (*Angelicae sinensis Radix*) 10g and Shui Niu Jiao (*Bubali Cornu*) 10g. These herbs were given as a decoction.

After two weeks of treatment she became calmer, with less shaking of the head and less tremor and hypersensitivity of the muscles of her limbs. Scalp acupuncture was then included using the following points: central line, top and middle regions of the motor area and chorea-trembling control area.

After a couple of months of the above treatment some body acupuncture points were added as follows: Zusanli

Symptoms	Scalp acupuncture	Body acupuncture	Electro acupuncture
Spasm	++	+-	+-
Convulsion	++	--	+-
Tremor	++	+-	+-
Tension	++	+-	+-
Atrophy	+	++	++
Weakness	+	++	++
Dystaxia	++	+	+
Optical Disorder	+	++	--

Table 1: Acupuncture methods for the treatment of specific symptoms of MS.

- ++ Application essential
- + Application useful
- +- Application appropriate depending on the condition of the patient
- Application contraindicated⁸

ST-36 with reinforcing method and Taichong LIV-3 and Neiguan P-6 with reducing method. Acupuncture was given weekly and she took her herbal medicine (as a decoction) every day.

After four months of treatment she was much calmer, such that she was now able to sit and read for a while without attacks of spasm and trembling.

This case belongs to the third class of recovery (see below).

- **Third class recovery:** severe symptoms were reduced and although still significantly affected by the disease, the patient was able to maintain a stable condition. There were five cases in this group (25 per cent).
- **No change:** there was no change to either acute or chronic symptoms. There were two cases in this group (10 per cent).

After four months of treatment she was much calmer, such that she was now able to sit and read for a while without attacks of spasm and trembling.

Based on these criteria the rate of excellent (first class recovery) results using TCM treatment in this study was 25 per cent, with an overall effectiveness rate of 90 per cent.

Overall analysis

General information

All of the 20 cases here were Caucasian; eight were male and 12 were female. The youngest was 24 years old and the oldest 62. The shortest duration of disease was six months, and the longest 20 years. All of the patients had received their diagnosis in hospital from a neurologist, which was confirmed by the positive pathological reflexes shown during tests at the author’s clinic.

Clinical evaluation standards and results

In order to evaluate the effects of TCM treatment, the following criteria were used:

- **First class recovery:** MS was completely controlled and all symptoms disappeared. There were five cases in this group (25 per cent).
- **Second class recovery:** the main and recent symptoms were controlled plus there was improvement in the deteriorating state of the patient. There were eight cases in this group (40 per cent).

Patient sample

There are broadly two types of patients who seek TCM treatment for MS.

One group constitutes those who are suffering with acute symptoms; these patients tend to have a short course of treatment (one to four months) in order to improve their acute symptoms, and then stop. Sixteen out of the 20 cases reported here fit into this category (80 per cent). The other group of patients comes from ongoing (although sometimes intermittent) treatment to manage their symptoms and maintain a stable condition. Four of the 20 cases reported here fit into this category (20 per cent).

Discussion

Although the data gathered in this study are not sufficient to definitively prove the efficacy of TCM treatment of MS, it suggests that if the correct methods are employed then TCM treatment can be effective at controlling the acute, recurring symptoms of MS and can also halt any further deterioration of the condition.

Acupuncture methods

The key to the successful treatment of MS with acupuncture is choosing the appropriate method and strength of treatment for a particular case. Table one shows the best acupuncture methods to treat particular symptoms, based on the clinical experience of the author.

Acupuncture treatment is much more effective when the correct method and dosage is applied. In the experience of the author acupuncture is much more effective than physiotherapy or massage in the treatment of MS. In general the patient tends to feel much better for at least a couple of days after a session; it is therefore advisable to treat at least once or twice per week. In terms of dosage, the author has found that gentle treatment and gradual change is desirable. Because of the hyper-sensitive muscles of patients who are experiencing spasm, convulsions and tension, electro-stimulation should be applied cautiously (at the risk of aggravating the symptoms). In addition to this, due to the generally sensitive reactions of patients with neurological problems, the strength of treatment should also be carefully increased when treating atrophy and weakness.

Herbal medicine

The herbal formulas for the treatment of specific patterns are as follows:

- Liver and Kidney yin deficiency: *yi guan jian* (Linking Decoction)
- Spleen and Kidney qi and yin deficiency: *liu wei di huang wan* (Six-Ingredient Pill with Rehmannia) plus *bu zhong yi qi tang* (Tonify the Middle and Augment the Qi Decoction)
- Accumulation of dampness: *san miao wan* (Three-Marvel Pill)
- Liver wind agitating within: *zhen gan xi feng tang* (Sedate the Liver and Extinguish Wind Decoction)

The above formulae alone are not powerful enough to treat MS effectively. It is also necessary to strengthen the brain, fill the bone marrow and benefit the spinal cord. Thus the above formulae are often modified by adding Shu Di Huang (Rehmanniae Radix preparata) or Sheng Di Huang (Rehmanniae Radix), Chuan Niu Xi (Cyathulae Radix), Du Zhong (Eucommiae Cortex), Di Long (Pheretima), Lu Jiao Shuang (Cornu Cervi Gelatinum) [or Lu Jiao Jiao (Colla Cornu Cervi)] and Rou Cong Rong (Herba Cistanches). In order to regulate the immune system it is often necessary to tonify qi and blood with herbs such as Huang Qi (Astragali Radix) and Dang Gui (Angelicae sinensis Radix). To treat convulsions, internal wind can be extinguished using Jiang Can (Bombyx batryticatus),

Di Long (Pheretima) and Quan Xie (Scorpio). By integrating the correct TCM patterns with the diagnostic findings of Western medicine, TCM practitioners should be able to provide treatment that is focused and potent enough to effect a beneficial change in the condition of most patients with MS.

In terms of the administration of herbs, in general the herbs should be given as a decoction (five to seven doses per week) during an acute episode or if the symptoms are severe. During the chronic or stable phases the herbs can be given as concentrated powders. Some patent herbal formulas can also be effective such as *jian bu zhuang gu wan* (Vigorous Walk, Strengthen Bone Pill - previously called *jian bu hu qian wan*) or *da huo luo dan* (Great Invigorate the Connecting Channels Pill).

Combination of herbs with medical drugs

The acute symptoms of MS are usually treated with oral or intravenous steroids. This treatment is not always effective, as case one above illustrates; despite

It may be possible that in some cases patients actually respond to Western treatment better after TCM treatment.

steroid infusions the patient continued to deteriorate (but then improved quickly with TCM treatment). It may be possible that in some cases patients actually respond to Western treatment better after TCM treatment. In the experience of the author, if there is qi stagnation the ability of the body to respond to the drug becomes obstructed; in such cases acupuncture treatment to reestablish the free movement of qi will produce a better response to the drug. Therefore the most effective way to treat a severe acute episode of MS may be a combination of steroids and TCM treatment, administered as early as possible. For the chronic or stable stage of MS, it is also advisable to employ comprehensive TCM treatment.

Conclusion

Although MS is a severe, refractory disease, TCM treatment can be effective, whether used during the acute or the chronic progressive stages of the disease. TCM can play a positive role in stopping the development of the disease and the deterioration of the patient.

The advantages of TCM are that it can effectively ameliorate the symptoms of MS, regulate the immune system, improve motor function, promote nerve regeneration and correct local circulation, especially if used over a long period of time. In addition TCM,

if applied correctly, has no toxicity or side-effects - even when used over the long-term.

The limitations of TCM are that in the short term it tends only to be effective at stabilising the patient's condition at a particular stage of the disease (whether acute or chronic). That is, if the damaged nerve is engaged in an inflammatory procedure and there has not been complete demyelination, TCM treatment will control the inflammation and prevent further demyelination. TCM treatment is unfortunately not potent enough to treat disability where degeneration of the nerve has already occurred. It is of course difficult to heal such demyelination. Whilst it is not possible to cover the subject here, clinical experience from China suggests that TCM treatment over a sufficiently long period of time can potentially support the regeneration of the nervous system.⁹

Treatment of MS with TCM can take a long time. In Western countries, TCM is classed as a complementary or alternative treatment and is thus usually provided by private clinics. Patients usually have to pay for such

treatment themselves (unless they have private insurance). An important factor governing the success of TCM treatment is therefore whether a patient can afford to have treatment over a sufficiently long period of time. Because TCM treatment for MS patients is currently not available in hospital, it makes it difficult to conduct the necessary clinical research to investigate its efficacy. It is the author's hope that this small study will be followed with larger and more rigorous clinical trials. In the experience of the author TCM has much to offer patients across the world suffering from MS. ■

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Endnotes

- 1 Edwards, C.R.W. Ed. (1995). *Principles and Practice of Medicine*. 18th Ed. Edinburgh: Churchill Livingstone
- 2 Sun, Y. (1997). "Strengthening Research on Prevention and treatment of MS. China". *Journal of Integrated Traditional and Western Medicines* 17(2), 113
- 3 Sun, Y. (1992). "Clinical Observation of Identification and Treatment of 22 Cases of MS". *Chinese Medicine*: 33(10), 31
- 4 To say 'cure' in the case of MS would necessarily require follow-up monitoring for a longer period of time.
- 5 A large dose of Huang Qi (Astragali Radix) is employed in order to strengthen Spleen qi and balance the immune system; in the opinion of the author this constitutes a key aim in the treatment of MS. Weakness of the legs in patients suffering from MS is a useful indicator of Spleen qi deficiency.
- 6 The special Jiaji points are located one cun from the posterior midline, in line with the intervertebral spaces. These are different from the Huatuoji (M-BW-35) points, which are located 0.5 cun from the posterior midline. The reason for using these points is that the Huatuoji (M-BW-35) points are too close to the parts of the spine that have been damaged by MS and thus are often too sensitive and painful to needle.
- 7 One case involved a man with severe MS experiencing paralysis of the legs and fecal and urinary incontinence. After three months of treatment he was able to control his defecation and urination, and the mobility of his legs was improved. Because of his improved state he travelled abroad for a holiday, but unfortunately died of respiratory failure caused by pneumonia whilst he was away.
- 8 Some patients experiencing convulsions and hypersensitive muscles may be unable to bear the stimulation of body acupuncture. Electro-stimulation is contra-indicated for the points around the eyes.
- 9 The author conducted research into massage treatment of disabled children with cerebral palsy in China and found that some children were able to walk remarkably better after treatment. The researchers found that healing (nerve regeneration) occurred in the affected areas of the brain - as confirmed by CT scan and evoked response testing. See Jiang, D. et al (1990). "The Clinical and Testing Research for 100 Cases of Cerebral Paralysis in Children Cured by Massage". *Journal of Chinese Medicine and Pharmacology*, 1