

Appendix A

Chapter 15 ~ Multiple Sclerosis 多发性硬化 Duō Fā Xìng Yìng Huà

MS is a disease of demyelination of the central nervous system. This disease's characteristics are divergent with periods of relapse and remission. It can manifest as paralysis of the body, obstruction of vision, ophthalmoplegia, imbalance, and sensory obstruction.

In 1868 {French neurologist Jean Marie} Charcot offered a detailed description of patients' clinical and pathological characteristics. From then until now it has been already 100 years. This disease should be classified under the Chinese medical categories such as Wasting & Thirsting Syndrome or *Wei Syndrome* 萎證, Internal Cataract 內障, Dizziness & Vertigo 眩暈, and voice failure 暗瘁.

2 ~ Disease Etiology & Pathomechanism

2.1 Chinese Medical Understanding

Commonly doctors believe the fundamental characteristics of this disease are root deficiency and branch repletion. This deficiency is due to: prenatal *endowment* not being sufficient; Kidney Jing is weak; 'Zheng qi' is not sufficient; *post~heaven* {Qi} losses nourishment. Branch repletion is indicated by internal generation of wind, damp, fire, phlegm, and stagnation. Spleen & Kidney are weak. Liver and Kidney Yin deficiency is the governing foundation of pathology.

The Su Wen's *Tōng Píng Xū Shí Lùn* 通評虛實論 *Elucidation of Deficiency & Excess Treatise* states "when the Jing Qi is deprived, then it is deficient." Disease originates from: prenatal insufficiency; post~heaven irregularity; internal damage {from} exhaustion; and emotional excitation. It may originate from; erroneous treatment or not taking care of oneself after becoming sick resulting in the Spleen Stomach damage, Liver and Kidney not being sufficient which then involves the five Zang and therefore Jing, Qi, and blood are weak. The tissues and vessels lose nourishment. The sea of marrow is hollow. If these deficiencies are present phlegm, stagnation, wind, damp, and fire become jointly bound internally, obstructing the channels and the clear orifices. {Consequently} this disease arises.

Kidney is the root of 'pre~heaven'. It is the origin of engendering. It is the root of the Yin Yang of the Zang Fu. Kidney stores the Jing. Jing gives birth to marrow. Marrow goes to the brain. Spleen and Stomach are the root of post~heaven; the origin of transformation and engendering of Qi & blood; the pivot of the ascending and descending dynamic of the Qi. When 'post~heaven' obtains 'pre~heaven', it then generates endlessly. 'Pre~heaven' obtains 'post~heaven', then the source of transformation is infinite. It's Jing Qi irrigates and nourishes the five Zang and six Fu and harmonizes the whole body, preserves regularity and maintains normal, healthy physiology.

In Spleen & Stomach deficiency damage, the source of generation and transformation of Qi and blood is lacking. 'Pre~heaven' Kidney Jing is insufficient. Jing does not engender blood. Qi and blood are weak and deficient. Nourishment of the five Zang and six Fu is not sufficient. Function is diminished.

In Lǐ Dōng Yuán's 'Pí Wèi Lùn - Pí Wèi Xū Shí Chuán Biàn Lùn 脾胃虛實 傳變論 *Transformation of Emptiness and Fullness of the Spleen & Stomach Theory* he states, "As soon as the Qi of the Spleen and Stomach is injured, the original Qi is also not able to fill which is the cause of all disease." Spleen and Stomach are feeble. The pivot of ascending and descending does not move smoothly. Consequently, speech is not clear and swallowing is difficult. In Spleen deficiency, the Spleen is unable to move and transform water and dampness. Accumulation of damp gives rise to phlegm. Phlegm damp transforms into fire. Damp heat covers the clear orifices. Clear yang does not rise. Turbid yin does not descend and it issues forth as dizziness.

Spleen governs the tissues and flesh. In Spleen and Stomach weakness, the four limbs are heavy without strength. Therefore they are atrophied and cannot be moved as the patient wishes. Kidney stores the Jing, governs the bones and engenders marrow. The brain is the sea of marrow. When the pre-heaven Kidney Jing is very deficient then the sea of marrow is insufficient. Subsequently the brain transfers this as tinnitus. In Kidney Jing insufficiency, the Jing does not engender blood. Consequently the Liver blood is not sufficient. The Liver opens in the eyes. If the blood does not nourish the eyes, the spirit is not full. When that happens it comes out in the blurred vision. Liver governs the sinews, when the sinews and vessels lose nourishment there is spasticity and pain in the four limbs.

Essentially branch repletion theory {is as follows}. In Kidney Yin deficiency, Water does not moisten Tree, therefore Liver Yang ascends hyperactively and transforms into wind. This manifests as wind flaccidity "风痹". When Liver Yang is hyperactive it can transform into fire. Liver fire harasses the Heart spirit thus the Heart spirit is not peaceful. {There will be} little sleep with profuse dreaming. If the Spleen is deficient and not able to move and transform water and damp, accumulated damp will give rise to phlegm. Phlegm damp transforms to heat. Damp heat covers the clear orifices. Clear Yang does not ascend. Turbid Yin does not descend. This emerges as vertigo & dizziness. In Qi deficiency the commander of blood lacks strength. Blood flow is rough and sluggish resulting in stagnation. Phlegm, stasis, wind, damp, fire these jointly bind, obstructing the vessels and clear orifices and this disease emerges.

2:2 WESTERN MEDICAL UNDERSTANDING (NOT TRANSLATED)

2.2.1 Viral Infection Factor

2.2.2 Autoimmune Factor

2.2.3 Genetic Factor

2.2.4 Blood vessel, Blood Brain Barrier Factor

3 DIAGNOSIS (NOT TRANSLATED)

3.1 Essential Aspect of Diagnosis

3.2 Adjunct Examinations

3.2.1 Analysis of Cerebrospinal Fluid

3.2.2 Electroencephalography/Evoked Potential (EEG)

3.2.3 Magnetic Resonance Imaging (MRI)

3.3 ADDITIONAL DIAGNOSES

3.3.1 EAE experimental acute encephalomyelitis

3.3.2 Optic Neuritis

3.3.3 Cervical Vertebrae Dysfunction

3.3.4 Subacute Associated Changes

4.1 DIFFERENTIAL DIAGNOSIS & TREATMENT

Outline of Symptom Differentiation

Formative causes combine into characteristics distinguished as *damp heat permeating, Qi deficiency blood stagnation, Kidney Yang depletion, Liver Kidney Yin deficiency and other patterns.*

4.1.1 Damp Heat Permeating

{In this pattern} the limbs and trunk gradually appear atrophied, weak and without strength, the body is heavy. Simultaneously one may also see mild edema and numbness. {There may also be} fever, distention & tightness in the chest cavity. Urination {may be} red, rough, burning & painful. The tongue is red, tongue coat is yellow or yellow and greasy, the pulse slippery & rapid.

4.1.2 Qi Deficiency Blood Stagnation

{In this pattern} the four limbs will be atrophied and weak, with numbness in the hands and feet, dizziness and blurred vision. The complexion will be withered yellow, lips purple, the tongue blue-green. Areas of the body may be tender/painful. The tongue will be pale and dusky and may have stasis dots or macules. The pulse is thin and rough.

4.1.3 Kidney Yang Deficiency

{In this pattern} there is dizziness and blurred vision, speech is stuttering and unsmooth. Both lower limbs lack strength, if severe it may be to the point of paralysis, or the limbs may be numb. Urination is frequent. The sinews are hypertonic and tight. There is aversion to cold. The tongue body is pale, coat thin white. Pulse is thin and weak or deep and thin.

4.1.4 Liver Kidney Yin Deficiency

{In this pattern} there is diminished vision, dizziness, and tinnitus. Hand movement is clumsy and awkward, limbs and trunk weak and paralyzed or numb. Mouth and tongue are dry and scorched. The tongue is red, with a scant, dry coat. The pulse is wiry, thin and rapid.

4.1.5 Spleen Stomach Deficiency and Weakness

{In this pattern} the limbs and trunk are atrophied and weak without strength, and {a feeling of} heaviness during the day. Appetite is sluggish and poor. There is abdominal distention and sloppy stool. The face is swollen without luster. There will be shortness of breath, fatigued spirit and lack of strength. The tongue body is swollen, large and pale. The tongue coat is thin white. The pulse deep and thin or deep and weak

4.2 DISCUSSION OF ETIOLOGY & TREATMENT

Disease etiology is due to both external influences and internal injury. Initially, it is common to have manifestations of an external pathogen flourishing. After every relapse the pathogen leaves injury of the *Zheng* {in its wake}. This evolves becoming Liver and Kidney Yin deficiency. Kidney Jing is deficient. The sea of marrow is hollow. In order to treat the above one must treat both external influences and internal injury. On the basis of different syndromes, be it eliminating pathogenic influences or supporting the *Zheng*, concurrent supplementation of the Kidney and treatment of deficiency are essential strategies.

4.2.1 Damp Heat Permeating

Clear heat and leech out dampness. Herbal formula: Jia Wei Er Miao San modified: Huang Bai 10g, Cang Zhu 12, Dang Gui 12g, Yi Yi Ren 15g, Niu Xi 12g, Fang Ji 12g, Bei Xie 10g, Gui Ban & Bie Jia 12g each.

Within this formula Cang Zhu parches damp, Huang Bai clears heat. Niu Xi, Bei Xie, Fang Ji guide damp heat to move down and be resolved through urination. Yi Yi Ren leeches out dampness and opens the *luo*. Dang Gui, Gui Ban, Bie Jia enrich Yin and nourish blood. All herbs combined together achieve the effect of freeing the damp and opening the *luo*絡.

4.2.2 Qi Deficiency, Blood Stagnation

Benefit the Qi and transform stagnation, invigorate the blood and open the *luo*. Herbal formula: Bu Yang Huan Wu Tang modified: Huang Qi 30g¹, Shu Di 20g, Dang Gui 15g, Bai Shao 12g, Dang Shen 20g, Chuan Xiong 8g, Tao Ren 9g, Hong Hua 6g, Niu Xi 6g.

Within this formula Huang Qi boosts the Qi, *Si Wu* regulates the Liver and nourishes the blood. Dang Shen & Huang Qi boost the Qi, additionally Tao Ren, Hong Hua, and Niu Xi invigorate the blood and move stasis, making the Qi and blood vigorous and healthy. Stagnation will be eliminated and regeneration occurs. Muscles and bones receive nourishment. Atrophy and weakness gradually recover.

¹ Huang Qi listed twice in original text, 1st citation at 30g, 2nd 18g.

4.2.3 Kidney Yang Depletion

Warm and nourish the Kidney Yang, fill the Jing, and supplement the marrow. You Gui Wan modified: Fu Zi 15g, Rou Gui 1.5g, Shu Di 30g, Du Zhong 12g, Shan Yao 12g, Dang Gui 12g, Gou Qi Zi 12g, Gui Jia 30g, Jiang Can 15g, Quan Xie 15g, Xian Ling Pi 15g, Xian Mao 10g.

Within this formula Zhi Fu Zi, Rou Gui, and Xian Ling Pi warm and supplement the Kidney Yang. Shu Di, Shan Yao, Gou Qi Zi, Gui Ban, Bie Jia nourish the blood and enrich Yin. This grasps the intention of seeking Yang within the Yin. Assist using Quan Xie, Jiang Can to open the collaterals and invigorate the blood. The entire formula achieves warming and supplementation of the Kidney Yang, fills the Jing, and nourishes the marrow. In cases of urinary incontinence add Sang Piao Xiao 10g in order to warm the Kidney and consolidate. With blood stagnation add Dan Shen 15g, Hong Hua 10g.

4.2.4 Liver & Kidney Yin Deficiency

Enrich and supplement Liver and Kidney, fill the Jing and nourish the marrow. Zuo Gui Wan modified. Gui Ban and Bie Jia 30g each, Sheng Di 30g, Niu Xi 15g, Gou Qi Zi 10g, Tu Si Zi 10g, Sha Yuan Zi 15g, Dang Gui 15g, Bai Shao 15g, Gou Teng 30g, Jiang Can 15g, Sheng Huang Qi 30g, Rou Gui 1.5g.

Within this formula Gui Ban & Bie Jia, Sheng Di, Gou Qi Zi, Huai Niu Xi, Tu Si Zi, Sha Yuan Zi nourish the Kidney and supplement the Liver. Dang Gui, Bai Shao, and Huang Qi boost the Qi and nourish blood. Assist with Gou Teng, Jiang Can so as to extinguish wind and open the *luo*. The whole formula combined achieves nourishment of the Kidney and supplementation of the Liver, boosts the Qi, and nourishes the blood. In cases of dry mouth and parched tongue add Mai Dong 15g, Sha Shen 15g. For urinary incontinence add Yi Zhi Ren 15g and Fu Pen Zi 15g.

4.2.5 Spleen Stomach Deficiency & Depletion

Fortify the Spleen and supplement the Qi. Shen Ling Bai Zhu San modified: Dang Shen 15g, Bai Zhu 15, Shan Yao 20g, Bai Bian Dou 15g, Fu Ling 15g, Yi Yi Ren 15g, Sha Ren 6g, Chen Pi 10g, Lian Zi Rou 10g.

Within this formula Dang Shen, Bai Zhu, Shan Yao, Bai Bian Dou, Lian Zi Rou all act to fortify the Spleen, boost the Qi and supplement the Stomach. Fu Ling, Chen Pi, and Sha Ren are able to regulate the Qi, awaken the Spleen and open the Stomach, Yi Yi Ren fortifies the Spleen, leaches out the damp and stops diarrhea. The whole formula combined acts to fortify the Spleen, boost the Qi and support the Stomach. If the four limbs are cold add Zhi Fu Zi, Gan Jiang. In cases of prolonged illness and body weakness, combined Qi and blood deficiency, add Huang Qi, Dang Gui, Ji Xue Teng, and Shu Di which supplement both Qi and blood. For poor appetite add Ji Nei Jin.

CURRENT USE OF CLASSICAL FORMULAS

5.1 Er Miao San {Dan Xi Xin Fa}

Ingredients: Huang Bai 15g, Cang Zhu 10g

Preparation: Powder the above two ingredients

Dosage: Boil ginger broth, add {to powder} mix and take.

Formula explanation: In this formula Huang Bai is the *sovereign* herb. Bitter is used to dry dampness. Furthermore it is good for removing damp heat in the lower jiao. Dampness naturally comes from the Spleen. Therefore using Cang Zhu as *minister* dries the damp, fortifies the Spleen and causes the damp pathogen to leave and not reoccur. Both herbs combine to clear out the source. Branch and root are dealt with concurrently allowing the damp heat to be eliminated, all symptoms will naturally resolve.

5.2 Xue Fu Zhu Yu Tang {Yi Lin Gai Cuo}

Ingredients: Tao Ren 10g, Hong Hua 10g, Dang Gui 15g, Sheng Di Huang 15g, Chi Shao 10g, Niu Xi 10g, Jie Geng, 15g, Chai Hu 15g, Zhi Ke 10g, Gan Cao 12g.

Preparation: Daily decoct one bag herb, boil twice to obtain 200ml of tea.

Dosage: Take 100ml twice daily.

Formula Explanation: In this formula Dang Gui, Chuan Xiong, Tao Ren, and Hong Hua invigorate the blood & transform stagnation. Niu Xi eliminates stagnant blood, opens the blood vessels and guides stagnant blood down. Chai Hu courses the Liver, resolves depression and lifts up the clear Yang. Jie Geng opens and circulates the Lung qi, and guides the herbs upward, furthermore it can harmonize with Zhi Ke; one ascends, one descends. Opening the chest to promote circulation of the Qi makes the Qi move thus the blood moves. Sheng Di cools the blood and clears heat, combined with Dang Gui it is further able to nourish the Yin and moisten dryness. Therefore stagnation is eliminated without injuring the Yin blood. Gan Cao regulates and harmonizes all herbs. Combined they are used to eliminate stagnation without injuring Yin blood. The formula, together as a whole, moves stagnation in the blood aspect, also resolves stagnation and binding in the Qi aspect. It invigorates the blood without consuming the blood. It eliminates stagnation and allows the new to be generated. Using these {herbs} together, stagnation is eliminated, Qi moves and all the symptoms can recover.

5.3 Ren Shen Yang Rong Tang { San Yin Ji Yi Bing Zheng Fang Lun}

Ingredients: Huang Qi 25g, Dang Gui 25g, Rou Gui 10g, Zhi Gan Cao 5g, Chen Pi 15g, Bai Zhu 15g, Ren Shen 10g, Bai Shao 15g, Shu Di 20g, Wu Wei Zi 15g, Fu Ling 25g, Yuan Zhi 15g.

Preparation: Powder the above

Dosage: Daily take 12g on an empty stomach

Formula Explanation: This formula is *Ba Zhen Tang* plus Huang Qi, Rou Gui. Ren Shen, Shu Di mutually boost the Qi and nourish the blood. These together are the sovereign herbs. Bai Zhu and Fu Ling fortify the Spleen and leach out dampness. and assist Ren Shen to strengthen the Qi and fortify the

Spleen. Dang Gui and Bai Shao nourish the blood and harmonize the Ying and are *minister herbs*. All of the above herbs combined have the effect of producing Qi, supplementing the blood, nourishing the heart, and calming the spirit.

5.4 Bu Yang Huan Wu Tang {Yi Lin Gai Cuo}

Ingredients: Huang Qi 120g, Dang Gui Wei 3g, Chi Shao 5g, Di Long 3g, Hong Hua 3g, Tao Ren 3g, Chuan Xiong 3g.

Preparation: Daily decoct one bag herb, boil twice to obtain 200ml of tea.

Dosage: Take 100ml twice daily.

Formula Explanation: In this formula there is a high dosage of raw Huang Qi to strongly supplement the Yuan Qi of the Spleen & Stomach. Make the Qi move, then the blood will move. Eliminate stagnation and open the *luo*. Dang Gui Wei is good at invigorating the blood. Furthermore it is excellent at transforming stagnation without injuring the *Zheng*. Chuan Xiong, Chi Shao, Tao Ren, Hong Hua invigorate blood and transform stagnation. Di Long opens the channels and invigorates the *luo*.

5.5 Gui Pi Wan { Ji Sheng Fang}

Ingredients: Bai Zhu 9g, Fu Ling 9g, Huang Qi 12g, Long Yan Rou 12g, Suan Zao Ren 12g, Ren Shen 6g, Mu Xiang 6g, Zhi Gan Cao 3g, Dang Gui 9g, Yuan Zhi 6g.

Preparation: Daily decoct one bag herb, boil twice to obtain 200ml of tea.

Dosage: Take 100ml twice daily

Formula explanation: In this formula Huang Qi and Dang Shen are *sovereign*. They boost the Qi and fortify the Spleen. Dang Gui and Long Yan Rou nourish the blood and harmonize the Ying. Bai Zhu and Mu Xiang strengthen the Spleen and regulate the Qi. Fu Ling, Yuan Zhi and Suan Zao Ren nourish the blood and calm the spirit. Sheng Jiang and Da Zao harmonize the Stomach and strengthen the Spleen as a means of engendering transformation. All herbs combined can boost and support the Heart and Spleen. When the Qi flourishes blood is produced.

6. PATENT MEDICINE (ONLY TRANSLATED TITLES OF FORMULAS USED)

6.1 Xue Fu Zhu Yu Wan

6.2 Zhi Bai Di Huang Wan

6.3 Shi Hu Ye Guang Wan

6.4 Ren Shen Yang Rong Wan

6.5 Shen Ling Bai Zhu San

7 ADDITIONAL THERAPIES

7.1 Acupuncture

According to the disease etiology and the affected organ, select and treat acupuncture points of the corresponding channels, and select appropriate needling techniques. “Mend it’s ‘ying’ 荣 and open it’s ‘shu’ 俞,” regulate deficiency and excess, harmonize the flow. Eliminate the disease pathogen. Moistens and nourish the sinews and bones.

Main Points: the upper limb Qu Chi L.I.11, He Gu L.I.4, Yang Xi Ht 6
the lower limb Bi Guan St 31, Liang Qiu St 34, Zu San Li St 36, Jie Xi St 41.

Supporting points: Phlegm Heat add Chi Ze Lu 5, Fei Shu UB 13 Phlegm Damp add Yin Ling Quan Sp 9, Pi Shu UB 20, Liver Kidney Yin weakness add Gan Shu UB 18, Xuan Zhong GB 39, Yang Ling Quan GB 34; Stagnant blood add Xue Hai Sp 10, Tai Chong Liv 3, Qi and Yin both deficient add Tai Xi Kid 3, Tai Yuan Lu 9.

Manipulation: Use balanced supplementation and reducing. Retain for 20-30 minutes. Daily for 10 days is equivalent to one course of treatment. Generally treat only the affected side. Also one can first treat the healthy side and then the affected side.

7.2 Acupuncture Point Injections

Selected points: Qu Chi LI 11, Wai Guan SJ 5, He Gu LI 4, Huan Tiao GB 30, Wei Zhong UB 40, Yang Ling Quan GB 34, San Yin Jiao Sp 6, Xue Hai Sp 10.

Manipulation: Daily choose 2-4 points, daily inject 1ml Hong Hua sterile liquid in each point, 10 days is equivalent to one course of treatment

7.3 Ear Acupuncture

Selected points: Choose Kidney, Liver, Shen men, Eye, and Adrenal areas.

Manipulation: Daily choose 3-5 points. Use strong stimulation, retain for 15 minutes, once every other day.

7.4 Physical Therapy

For paralysis, early on one should utilize passive exercise of the limbs in order to maintain limb function, prevent muscle contraction, and drop foot. Encourage the patient to exercise using their upper body {most functional parts of the body} to exercise and move the other parts of the body.

7.5 Western Medicine (NOT TRANSLATED)

8 MODERN TREATMENT EXPERIENCE

8.1 He Kuan Qi's treatment experience

He Kuan Qi used Chinese medicine to treat one case following ineffective treatment by western medicine. Initially herbs were used to supplement the Spleen, boost the Qi and ascend the clear, transform and eliminate phlegm open the *luo* without effect. After that, there was a shift to the method to supplement the Kidney, fill the Jing, clear phlegm and open the orifices, invigorate blood and transform stagnation. Herbs used: Shu Di, Huai Shan Yao, Fu Ling, Zhi He Shou Wu, Bai Jie Zi 15g each, Shan Zhu Yu, Dan Pi, Ze Xie, popped Lu Jiao Jiao, Shi Chang Pu, Yu Jin, Chuan Xiong, Hong Hua, Qiang Huo 10g each. One bag a day. After treatment for one week symptoms were alleviated. After 2 months of treatment there was clear mitigation {of symptoms}. For long term maintenance Liu Wei Di Huang Wan was prescribed. Follow up after one year, no relapse had occurred.

8.2 Wang Hui's treatment for Liver Kidney Yin Deficiency, Liver Qi not smooth type MS

Wang Hui used Yi Guan Jian modified (Sheng Di 30-45g, Sha Shen 10g, Gou Qi Zi 10g, Dang Gui 12g, Mai Dong 10g, Chuan Lian Zi 6-10g, Bai Shao 12g, Suo Yang 10-15g). He treated 15 cases of MS of the type Liver and Kidney Yin deficiency, Liver Qi not smooth. In this formula Sheng Di was used in large dosage to nourish the Liver & Kidney. It was assisted by Sha Shen, Mai dong, Gou Qi Zi to strongly enrich Liver & Kidney and effectively generate Yin fluids. Bai Shao was added to nourish Liver blood, soften the Liver, and help to course and release. Suo Yang, obtain its function to strengthen the sinews and atrophy. The above formula was taken three times a day, and continued for 2-12 weeks. Treatment results: 2 cases fully recovered, clear effect in 8 cases, some effect in 3 cases, no effect in 2 cases.

8.3 Liang Jian Fen treatment experience with *relapsing remitting MS*

Liang Jian Fen used supplement the Kidney, Fortify the Spleen and transform stagnation {approach} in daily treatment of 35 cases of RRMS. Herbs used: Shu Di Huang, Gui Ban, Yin Yang Huo, Ren Shen, Fu Ling 15g each, Ba Ji Tian, Dang Gui, Chuan Niu Xi 12g each, Huang Qi 30g, Bai Zhu 10g, Gan Cao 5g, Bai Shao 25g, Dan Shen 18g. 1 bag per two days continuously for 6 months. This was compared to a control group of 28 cases with acute onset who had complete recovery or significant improvement following treatment of combined western and Chinese medicine or with strictly western medicine. During remission patients either discontinued use or did not receive Chinese medical treatment at all. Treatment results: both groups had regular follow up visits for 2-5 years. In the treatment group due to getting sick each had one relapse emerge. The average relapse was 0.072 times annually. In the control group 1-4 relapses occurred. The average relapse rate was .78 annually. Both groups $P < 0.001$.

8.4 Lu Xi's treatment experience

Lu Xi et al adopted treatment of combining Chinese and western medicine to treat 35 cases of MS. In his assessment, Liver & Kidney Yin deficiency combined with Spleen Stomach deficiency is the fundamental

type. Blood stagnation combined with damp heat is commonly seen in patients with a relatively long course of disease or long time use of corticosteroids.

{Treatment groups were divided as follows}

1) **Zuo Gui Wan** (Sheng di, Shu di, Gou Qi Zi, Zhi Mu,, Dan Shen, Bai Shao each 12g, Shan Yu Rou, Nu Zhen Zi, Lu Jiao Jiao, Gui Ban Jiao, Chuan Niu Xi, Dang Gui each 10g, Sheng Gan Cao 5g);

2) **Liu Jun Zi Tang** (Huang Qi, Dan Shen 15g, Dang Shen, Bai Zhu, Fu Ling each 10g, Zhi Ban Xia 9g, Chen Pi 8g, Da Zao 12 pieces, Zhi Gan Cao 4g;

3) **Bu Yang Huan Wu Tang combined with Xiao Chai Hu Tang variations** 化裁 (Huang Qi, Dang Shen 15g, Sheng Di, Bai Shao each 12g, Chai Hu, Dang Gui, Chi Shao, Huang Qin each 10g, Chuan Xiong, Zhi Ban Xia each 9g, Zhi Gan Cao 4g)

4) **Da Chai Hu Tang combined with Gan Lu Xiao Du Dan** (Yin Chen Hao, Hua Shi, Bai Shao each 12g, Chai Hu, Huang Qin, Zhu Ru, Mu Tong, Zhi Shi, Zhi Ban Xia each 9g, Da Huang 8g, Da Zao 12 pieces. After treatment 2 cases completely recovered, marked improvement occurred in 15 cases, no effect in 3 cases.

8.5 Zhan Wen Tao's treatment experience

Zhan Wen Tao differentiates the following types for this disease:

1) **Spleen Kidney Weakness tending toward Yang deficiency type.** He treats in order to boost the Qi and warm the Yang. Use Yi Qi Cong Ming Tang combined with Er Xian Tang with possible additions of Quan Xie, Wu Gong. Additionally one can add Xi Xian Cao, Hai Feng Teng, Luo Shi Teng in order to strengthen the effect of calming wind, invigorating the blood and opening the channels.

2) **For Yin Deficiency Yang excess type.** Yang is excessive, Liver yang ascends excessively transforming into wind; Select Tian Ma Gou Teng Yin or Zhen Gan Xi Feng Tang to nourish Yin, soothe and calm the Liver. Liver Yang ascends excessively, Liver fire flourishes, concurrently one will have red face and eyes, rib side pain, and bitterness in the mouth. He commonly uses his own formula Si Wei Ping Gan Jiang Ya Tang 四味平肝降壓湯. (Xuan Shen, Dan Pi, Huai Niu Xi, Ge Gen) and variations of Long Dan Xie Gan Tang.

3) **Phlegm damp obstructed & clogging:** Treat with variations of Ban Xia Bai Zhu Tian Ma Tang combined with Ze Xie Tang in order to fortify the Spleen, harmonize the Stomach, dry dampness, expel phlegm.

4) **Liver Kidney Yin Deficiency Type.** He commonly selected enrich the Kidney, nourish the Liver's Er Zhi Wan combined with his own *Wu Jing Di Huang Tang* 乌精地黄汤 (Zhi He Shou Wu, Zhi Huang Jing, Hang Ju Hua, Gou Qi Zi, Sheng Di Huang, Shan Yu Rou, Huai Shan Yao, Dan Pi) or Qi Ju Di Huang Tang or Yi Guan Jian.

5) **Qi Deficient, blood stagnation type.** Treat using methods such as boosting the Qi, invigorating the blood, transform stasis and open the *luo*. Yi Qi Cong Ming Tang combined with Bu Yang Huang Wu Tang variations.

9 CLINICAL CASES

9.2 Fāng Xiǎn Shù's case. Patient: male, 43 years old. The patient has had MS for 13 years and undergone treatment with both western medicine and acupuncture with no effect. The patient made a special trip from

Israel to China to receive Chinese medical treatment. In the past two years, he has had repeated relapses. His condition has become more severe, and he was already on the cusp of paralysis. He sat in a wheelchair at home, and was unable to take care of himself. With the help of a walking stick he moved about indoors. Movement of his hands was awkward and clumsy. In the past something he could accomplish in an hour took 10 hours. His eyes were distended and painful. He was dizzy with a tendency toward falling and inability to stand up. He was forgetful. His expression was aloof, speech required effort. His lower limbs were numb, distended, painful and he could not put on his shoes. He enjoys eating sweets. His abdomen was swollen and full; his mouth dry with a thirst for cool drinks. His urine was yellow, stool dry with one bowel movement per day. His tongue was red with a greasy yellow coat. His pulse was slippery and rapid.

His being overweight, his enjoyment of sweets all of these easily engender damp heat. Damp heat lodges and stagnates in the channels and *luo*, then there is numbness in the lower limbs, distention and pain. Thirst, abdominal distention and fullness, red tongue with a greasy yellow coat. These all indicate internal obstruction by damp heat. Distention and pain of the eyes and dizziness with a tendency toward falling on the other hand indicate Yin deficiency Yang excess. Consider damp heat and Yin deficiency; damp heat is the branch, Yin is the root. Furthermore, damp heat is relatively more severe. If the damp heat is not eliminated, then the Yin damage will become more severe.

Chinese medical diagnosis: *Wei Syndrome* 痿证. Western medical diagnosis: MS.

Treatment method: Clear heat and eliminate damp, open the *luo* and stop pain: Xing Ren, Bai Kou Ren, Shi Chang Pu, Hou Po, Mu Tong 10g each, Ban Xia 12, Yi Yi Ren, Han Fang Ji, Bing Lang 15g each. One bag a day, decocted.

Second visit: After taking 4 bags of the above formula, the foot pain had decreased, however the tongue was red without coat and had cracks. Dizziness, distention and pain in the eyes were evident. The pulse was slippery with strength. This is heat transformed from damp. One should enrich and nourish the Liver and Kidney. The root treatment is primary. The formula used modified Qi Ju Di Huang Tang: Sheng Di Huang, Gui Ban, Bai Shao, Gou Qi Zi, Xia Ku Cao 15g each, Shan Yao, Ju Hua, Mu Dan Pi, Shan Yu Rou (Shan Zhu Yu), Fu Ling, Che Qian Zi 10g each. One bag a day decocted.

Third visit: After taking 4 bags of the above formula the patient again had abdominal distention and pain. The tongue coat was yellow and greasy. Distention and pain in the lower limbs was still evident. The pattern continued to be damp heat obstructing the channels and *luo*. The formula used was Si Miao San combined with Ji Ming San modified: Cang Zhu, Mu Tong, Fang Ji, Dang Gui, Bai Shao 15g each, Chuan Shan Jia 6g. 1 bag a day decocted.

Fourth visit: After taking 4 bags of the above formula the distention and pain in his lower limbs was clearly reduced. However, again the tongue was visibly red with no coat and with cracks. He had dizziness, distention and pain in the eyes. The pulse was slippery and rapid with strength. To summarize the learnings of the

previous three visits it is according to treatment of Liver and Kidney Yin deficiency simultaneously with damp heat. The herbal prescription with modifications used for the first three visits was to clear heat and eliminate damp, open the *luo* and stop pain. At the same time, the patient took Qi Ju Di Huang Wan (patent pills) to enrich and nourish Liver & Kidney. This causes the heat to be cleared and dampness eliminated without injuring the Yin. So enriching the Liver & Stomach {? typo perhaps for Kidney} while not obstructing the pathogen. In accordance with the 4th visit, the herbal prescription was modified and prescribed for two weeks. The distention and pain in the lower limbs, dizziness, distention and pain in the eyes were all clearly decreased. The patient was able to get rid of his walking stick and able to move indoors. He was able to take care of himself. He had lost 10kg and his waist line was reduced by 16cm. His wife returned to their country while the patient stayed behind for treatment.

Afterwards, treatment was according to Liver and Kidney Yin deficiency concurrent with damp heat, with enriching and nourishing the Liver and Kidney as primary, concurrent with clearing damp heat. The formula used: Shan Yao, Che Qian Zi, Shan Yu Rou (Shan Zhu Yu) 10g each, Gui Ban, Sheng Di Huang, Gou Qi Zi, Bai Shao, Dang Gui, Xia Ku Cao, Mu Gua, Yi Yi Ren 15g each. Decocted. Herbs were combined with acupuncture. After two months of treatment the patient was completely recovered and returned to his own country. To prevent relapse he continued maintenance Chinese herbal treatment intermittently. Follow up, at 4 years: the patient has still not seen a relapse.

Remarks: This case is an example of damp heat as the branch, Yin deficiency as the root. Treat in order to clear heat and eliminate damp, open the *luo* and stop pain. Assist by enriching and nourishing the Liver and Stomach {?typo perhaps for Kidney} to prevent relapse.

10 MODERN RESEARCH

10.1 Basic Research

Sòng Lì Qún believes this disease is commonly from external invasion of the 6 pathogenic influences, internal injury due to overwork and the disease is located primarily in the Lung, Spleen, Liver & Kidney. The limbs lose nourishment and the sinews become sluggish. This is the crucial etiology of the disease. Sun Yi and others believe this illness is {the result of} the emotions not being balanced; the diet not being regulated; injury due to excessive overwork; and prenatal Kidney Jing insufficiency. The disease is located in the Lung, Spleen, Kidney, these three Zang.

Deng Tie Tao believes MS belongs to Chinese medicine's categories of atrophy *wei* syndrome 痿证 *bi* syndrome 痹证, and deficiency damage. It could be either pre~heaven endowment is insufficient or post heaven irregularity {or both}. {These include}: 1) external influences resulting in injury. 2) internal injury taxation or emotional upset. 3) Erroneous or absent treatment of disease or erroneous treatment of disease resulting in injury of Spleen & Stomach. This will eventually involve other Zang resulting in Qi and blood deficiency and the sinews will lose nourishment. Additionally phlegm, stagnation, wind, and damp heat, any one of these pathogens can lead to obstruction of the *luo*. The root of this disease is frequently weakened

Zheng. Pathogenic excess is the branch. Weakened *Zheng* is primarily due to Qi and blood deficiency. Pathogenic excesses are primarily wind, damp, phlegm, and stasis.

10.2 Pattern Differentiation & Treatment

Lu Xi et al performed clinical research by carrying out treatment combining Chinese and western medicine to treat 35 cases of MS. They believe Liver, Kidney Yin deficiency and Spleen, Stomach weakness are the fundamental categories. Blood stasis and damp heat were also frequently seen in patients with long time illness or prolonged use of corticosteroids.

Chinese medical treatment distinguishes the use of

Zuo Gui Wan (Sheng Di, Shu Di, Gou Qi Zi, Zhi Mu, Dan Shen, Bai Shao 12g each, Shan Zhu Yu, Nu Zhen Zi, Lu Jiao Jiao, Gui Ban Jiao, Chuan Niu Xi, Dang Gui 10g each, Sheng Gan Cao 5 g).

Liu Jun Zi Tang (Huang Qi, Dan Shen 15g each, Dang Shen, Bai Zhu, Fu Ling 10g each, Fa Ban Xia 9 g each, Chen Pi 8g, Da Zao 12 pieces, Zhi Gan Cao 4g).

Bu Yang Huan Wu Tang with **Xiao Chai Hu Tang** modified (Huang Qi, Dang Shen 15g each, Sheng Di, Bai Shao 12g each, Chai Hu, dang Gui, Chi Shao, Huang Qin 10g, Chuang Xiong, Fa Ban Xia 9g each, Zhi Gan Cao 4g).

Da Chai Hu Tang with **Gan Lu Xiao Du Dan** (Yin Chen Hao, Hua Shi, Bai Shao 12g each, Chai Hu, Huang Qin, Zhi Mu, Mu Tong, Zhi Ke, Fa Ban Xia 9g, Da Huang 8 g, Da Zao 12 pieces). Treatment results: complete recovery 2 cases, marked improvement as well as improvement 15 cases, no effect 3 cases.

Chen Yang differentiated treatment of 32 cases of MS: 19 of which were Qi and Blood deficiency type. {Patients} were treated in order to boost the Qi, nourish the blood and open the *luo*. He selected Huang Qi Gui Zhi Wu Wu Tang modified. For cases of Spleen, Kidney Yang deficiency type, he treated in order to support the Spleen and boost the Kidney. He treated using modified Si Jun Zi Tang. Treatment results, 12 had marked improvement, 7 had noticeable effect, resulting in 90.6% efficacy.

Liang Jian Fen observed efficacy in preventing relapse by using the method of boosting the Kidney, fortifying the Spleen and transforming stasis. During the remission stage, 63 patients were randomly divided into two groups. Treatment of 35 cases used supplement the Kidney, fortify the Spleen, transform stasis Chinese herbal method. The control group did not receive Chinese herbs. Patients were followed with regular visits for between 2 and 10 years. Average relapse rate in the treatment group was .072/year. Relapse rate in the control group was 0.78 times/year. In the control, treatment and the pre-treatment group there was a relative p value <0.001). Conclusion: The use of supplement the Kidney, fortify the Spleen and transform stasis herbs guards against MS relapse.

Yu Shiang Zhen using western medicine as the foundation employed Chinese herbs [as adjunct treatment] according to pattern differentiation of 6 MS cases. All had relapse subsequent to steroid treatment. For those diagnosed with Spleen Kidney Yang deficiency, wind phlegm obstructing the *luo* pattern, she used Er Xian Tang combined with Da Qin Jiao Tang modified. For damp heat permeating pattern she treated using Xiao Chai Hu Tang and San Miao San modified. For Liver Kidney Yin Deficiency pattern she gave Zuo Gui Yin and

Qi Ju Di Huang Wan modified. For Spleen Kidney deficiency, phlegm stasis obstructing the *luo*, she used You Gui Yin and Bu Yang Huan Wu Tang modified. For Liver Kidney Yin deficiency, phlegm stagnation lodged, she used Yi Guan Jian modified. 6 patients in the trial, 1 case fully recovered, 3 had clear benefit, 2 had some effect. Because the patient numbers were so few, additional thorough research is needed.

Wang Hui treated 15 cases of MS using enrich and nourish Liver and Kidney, smooth the Liver regulate the flow of Qi method. Formula used: Yi Guan Jian add Bai Shao, Suo Yang. Of the 15 cases 2 fully recovered, 8 showed marked improvement, 3 had effect, 2 had no effect.

Bi Ming Gang et al clinically applied use of extinguish wind and open the *luo* method for 10 cases of MS. In 6 cases the symptoms disappeared, at one year follow up there had been no relapse. 3 showed marked effect. After treatment some of their clinical symptoms disappeared, 1 case had no effect.

Liu Xiao Yan et all used *Bu Shen Gu Sui Pian* made from Yin Yang Huo 15g, Rou Cong Rong 12g, Xian Mao 10g, Sheng Di Huang 15g, Zhi He Shou Wu 15g, Yu Jin 10g, Dan Shen 15g). 43 patients were treated. Results: good effect 17 cases (39.53%), marked effect 21 cases (48.84%), no effect 5 cases (11.63). Cumulative effective was 88.37%. Clinical symptoms of patients before and after treatment, their neurological function, EDSS evaluation, as well as their total score showed significant difference $P < 0.01$.

Yang Xiao Hui treated 1 case of acute MS with *Qing Kai Ling* sterile injection once daily. After two months of treatment there is some alleviation of symptoms. Follow up until now, the patient's condition is stable.

Yang Zhao Gang used acupuncture to treat 69 MS patients using UB 18 *Gan Shu*, UB 23 *Shen Shu*, Sp 6 *San Yin Jiao*, Kid 3 *Tai Xi*, Bai Hui, Shang Xing Du 23. Points were modified according to the symptoms. Clinically symptom resolution was clearly evident. ~

~ Zhao Jiàn Jūn et al, *Neurologic Disease ~ Clinical Diagnosis & Treatment*. Scientific and Technical Documents Publishing House, Beijing, 2005.

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