

ACUPUNCTURE AND HERBAL MEDICINE

PARKINSON'S DISEASE

by Yufang Xue

Parkinson's disease is the most common central nervous system disorder. It is an idiopathic, slowly progressive degeneration of automatic and gross motor function. Parkinson's disease is characterised by impaired movement, muscular rigidity, resting tremor, and postural instability. In the United States, 50,000 new cases of Parkinson's disease are diagnosed in the geriatric population per year. This is a rate of one in two hundred.

Aetiology and pathology of Parkinson's disease in TCM

Tremors of the hands, rhythmic contraction and relaxation of antagonistic muscles, difficulty in movement and rigidity, stiff limbs, a staring look and mask-like face etc. are all common manifestations of Parkinson's disease. At the later stage of the disease, all movement is reduced in speed and frequency. The patient often sits immobile, walks taking small, shuffling steps, talks slowly with monotonous speech and a low voice, and writes in progressively smaller handwriting. Many of these are typical signs and symptoms of internal wind associated with liver disharmony in TCM.

Parkinson's disease usually occurs in patients over 50 years old. Chinese medicine believes that overwork, excessive sexual activity, improper diet and emotional stress are all common and important pathogens for many diseases. If these pathogens last a long period of time they will eventually give rise to kidney deficiency. Furthermore, senility, the late stage of life, is characterised by decline of kidney essence. This is why geriatric diseases always present with an underlying kidney deficiency pattern. As the liver and kidney share the same origin, kidney deficiency leads to both liver and kidney deficiency. Malnourishment of the tendons due to this deficiency results in stirring of liver wind internally.

From a TCM perspective, the main manifestations and age of onset of Parkinson's disease indicate that the disease relates primarily to liver and kidney disharmony and liver-wind.

Pattern identification and treatment principles of Parkinson's disease

Parkinson's disease is characterised by signs and symptoms of liver wind. In clinical practice, this degenerative condition often overlaps with other chronic geriatric diseases such as hypertension, high cholesterol, coronary artery disease, arteriosclerosis and diabetes. These are commonly associated with phlegm and blood stasis. In Chinese medicine, the pathogenesis of Parkinson's disease includes both root deficiency and excessive manifestations such as wind, phlegm, qi stagnation and blood stasis. Patterns of Parkinson's disease are represented by a progressive continuum from mild to severe. Qi and blood deficiency begins the disease progression. Left untreated or aggravated, the condition often degenerates into deficiency of liver and kidney. Wind-phlegm is then prone to obstruct the channels leading to blood stasis with endogenous wind. Finally, at the severe end of the spectrum, yin and yang both become deficient.

As a result, the general treatment principle is "nourishing yin and extinguishing wind". Nourishing liver and kidney yin treats the root and extinguishing wind focuses on eliminating its manifestation. "Invigorating blood and transforming phlegm" is an additional principle applied because blood stasis and/or phlegm are patterns that appear often in this disease. The specific treatment plan will be different in different stages of the disease and with different patients. Generally speaking, Parkinson's disease is a chronic and difficult disease requiring a long period of treatment with acupuncture and herbs. In the acupuncture treatment of Parkinson's disease, although the selection of acupuncture points is primarily based on patterns, some special empirical points are also important. Secondly, keep in mind that due to the long treatment period and the need for frequent treatments, it is important to avoid overuse of commonly-used points. To do this, organise acupuncture points into groups and alternate them each time, and supplement acupressure of the points at regular intervals. For the herbal treatment of Parkinson's disease, the following two aspects should be taken into account. First of all, the functional state

of the spleen and stomach is not strong in the elderly. Herbs that move qi to promote the spleen and stomach's functions are commonly used, therefore, to prevent the nourishing herbs from cloying. Secondly, herbs that invigorate blood and transform phlegm are warm, pungent and scattering and have a tendency to injure body fluids, blood and yin. It is important, therefore, to select relatively mild herbs for eliminating blood stasis and phlegm. Ultimately, maintaining mood, changing lifestyle and practising some oriental exercises such as qigong and taiji are equally as important as herbs and acupuncture in preventing and treating Parkinson's disease.

Acupuncture treatment of Parkinson's disease

Body acupuncture

Main Points: Taixi KID-3, Ganshu BL-18, Taichong LIV-3, Ququan LIV-8, Sanyinjiao SP-6, Guanyuan REN-4, Fengchi GB-20, Fengshi GB-31 and Hegu L.I.-4.

Explanation: In this acupuncture prescription, Taixi KID-3, the yuan-source point of the kidney channel, is effective at nourishing kidney yin. Ganshu BL-18 and Ququan LIV-8, the back-shu point and he-sea point of the liver channel respectively, restore the liver function. These three points nourish kidney and liver yin to treat the root.

The spleen and kidney are the root of post- and pre-heaven respectively, and thereby the source of liver yin. Sanyinjiao SP-6, the meeting point of the spleen, liver and kidney channels, and Guanyuan REN-4, the meeting point of the Conception vessel with the spleen, liver and kidney channels, can tonify the liver. Both REN-4 and SP-6 strengthen the function of the first three points in treating the root.

Fengchi GB-20 (Wind Pool) and Fengshi GB-31 (Wind Market) are points of the gall bladder channel which interiorly-exteriorly connects with the liver channel, and are effective at extinguishing liver wind.

There is a Chinese saying that states, "In order to extinguish wind one should invigorate blood first; with the free flow of blood, wind will be diminished automatically." Taichong LIV-3 and Hegu L.I.-4, comprise "the four gates," a point combination which is effective at moving qi and invigorating blood, and thus assisting in extinguishing liver wind. In the above prescription, five of the nine points focus on nourishing yin to treat the root and four of the nine points mainly extinguish wind to treat the manifestations.

Modifications

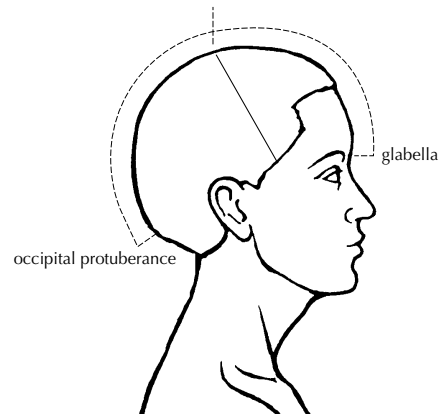
- add Qihai REN-6 and Zusanli ST-36 to tonify deficient qi and blood.
- for pronounced liver and kidney yin deficiency, add Shenshu BL-23, Zhaohai KID-6 and Yanglingquan GB-34.
- add Yinglingquan SP-9 and Fenglong ST-40 when the channels are obstructed by wind-phlegm.
- for cases with blood stasis and endogenous wind add Geshu BL-17 and Xuehai SP-10.
- when both yin and yang are deficient add Zhaohai KID-6, Mingmen DU-4, Qihai REN-6 and Zusanli ST-36.

- add Dazhui DU-14, Shaohai HE-3 and Houxi SI-3 in cases with severe tremor.
- add Tianshu ST-25 and Qihai REN-6 for constipation.
- add Chengjiang REN-24, Lianquan REN-23 and Fuliu KID-7 to relieve dry mouth and numb tongue.

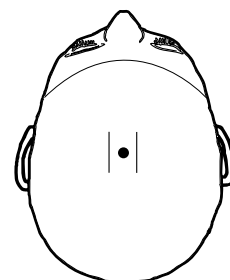
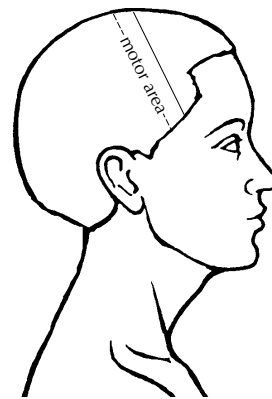
Scalp acupuncture

The commonly used scalp locations are the chorea, motor, leg motor and sensory areas. Use the thoracic cavity area in cases with palpitations and chest oppression. Lastly, the stomach area is effective for epigastric distention and reduced appetite.

the upper point of the **motor area** is 0.5 cun posterior to the midpoint between the glabella and the occipital protuberance; the lower point of the motor area is at the intersection of the superior border of the zygomatic arch and the hairline at the temple



the **chorea area** is parallel with and 1.5 cm anterior to the motor area



the **bilateral leg motor and sensory area** is 1 cm lateral to and parallel to the midline of the head, about 3 cm in length

Some other commonly used techniques

Pricking to bleed

Blood stasis is an important pathogenesis in many chronic and difficult diseases. In the treatment of Parkinson's disease, pricking to draw blood is an empirical and effective method. The frequently used points are Quze P-3, Weizhong BL-40, Dazhui DU-14 and Taiyang (M-HN-9).

Moxibustion

Moxibustion is also used frequently in practice, especially for patterns involving yang qi deficiency. Dabao SP-15, Qimen LIV-14, Shenque REN-8 and Zusanli ST-36 are the most commonly used points for moxa treatment which is especially effective for the rigidity of muscles and limbs.

Herbal treatment of Parkinson's disease

Herbal Prescription

Use a combination of *DiHuang Yin Zi* (Rehmannia Decoction) and *Tian Ma Gou Teng Yin* (Gastrodia-Uncaria Decoction) with variations: Tian Ma (Rhizoma Gastrodiae Elatae), Gou Teng (Ramulus Uncariae Cum Uncis), Long Gu (Os Draconis), Mu Li (Concha Ostreae), Niu Xi (Radix Achyranthis Bidentatae), Du Zhong (Cortex Eucommiae Ulmoidis), Fu Shen (Poriae Cocos Pararadicis Sclerotium), Sheng Di Huang (Radix Rehmanniae Glutinosae), Shi Hu (Herba Dendrobii), Bai Shao (Radix Paeoniae Lactiflorae), Rou Cong Rong (Herba Cistanches), Hai Zao (Herba Sargassii), Jiang Can (Bombyx Batryticatus), Chuan Shan Jia (Squama Manitis Pentadactylae), and Bie Jia (Carapax Amydae Sinensis).

In this formula, Sheng Di Huang, Shi Hu, Bai Shao, Rou Cong Rong, Niu Xi, Du Zhong and Bie Jia nourish liver and kidney yin, while Du Zhong and Rou Cong Rong also warm yang to "get yin through yang". Niu Xi also subdues uprising of liver yang to extinguish liver wind. Tian Ma, Gou Teng, Long Gu and Mu Li extinguish liver wind powerfully. Fu Shen, Hai Zao, Jiang Can and Chuan Shan Jia mainly transform phlegm, invigorate blood, activate the channels and extinguish interior wind. Fu Shen also calms the heart shen to help extinguish wind, and promotes the spleen and stomach to prevent the cloying effect of the nourishing herbs and to help digest the "stone and shell" herbs. This herbal formula has three important features: i. focusing on both the root and the manifestation, ii. tonifying the liver and kidney extensively together with strengthening the spleen, and iii. treating the basic patterns together with other common associated pathogens.

Modifications

- add Huang Jing (Rhizoma Polygonati), Dang Gui (Radix Angelicae Sinensis) and Bai Zhu (Rhizoma Atractylodis Macrocephalae) to tonify deficient qi and blood.
- add E Jiao (Gelatinum Asini), Gui Ban (Plastrum Testudinis), Mai Men Dong (Tuber Ophiopogonis Japonici) and Wu Wei Zi (Fructus Schisandrae Chinensis) for pronounced deficiency of liver and kidney yin.
- add Shui Zhi (Hirudo seu Whitmaniae), Dang Gui (Radix

Angelicae Sinensis), Ji Xue Teng (Radix et Caulis Jixueteng) and Lu Lu Tong (Fructus Liquidambaris Taiwaniana) when the channels are obstructed by wind-phlegm.

- for cases of blood stasis with endogenous wind add Huang Qi (Radix Astragali), Hong Hua (Flos Carthami Tinctorii) and Tao Ren (Semen Persicae).
- when both yin and yang are deficient add Ba Ji Tian (Radix Morindae Officinalis), Lu Jiao Jiao (Colla Cornu Cervi) and Wu Wei Zi (Fructus Schisandrae Chinensis).
- add Zhen Zhu Mu (Margarita) and Bai Ji Li (Fructus Tribuli Terrestris) in cases with severe tremors.
- add Mu Gua (Fructus Chaenomelis Lagenariae) and Quan Xie (Buthus Martensi) for rigidity and tightness of muscles and limbs.
- add Dan Nan Xing (Rhizoma Arisaematis cum Felle Bovis), He Ye (Folium Nelumbinis Nuciferae) and Cang Zhu (Rhizoma Atractylodis) to relieve high cholesterol or obesity.
- add Tao Ren (Semen Persicae) and Huo Ma Ren (Semen Cannabis Sativae) for constipation.
- add He Shou Wu (Radix Polygoni Multiflori), Shi Chang Pu (Rhizoma Acori Graminei) and Yuan Zhi (Radix Polygalae Tenuifoliae) in cases with numb tongue and slurred speech.

Case example

A 75-year male patient had experienced tremors of his upper limbs and reduced intelligence for three years. A medical examination showed that the patient had "impaired circulation in the brain and shrinking brain." He was diagnosed with Parkinson's disease. He had lost flexibility of facial expression, experienced uncontrolled tremors, rigidity and impaired movement of the arms, inability to hold utensils, poor memory, forgetfulness, soreness and weakness in the lower back, dry stool, concentrated urine, dim complexion without lustre, a slightly puffy and mildly trembling tongue, a thin and yellowish greasy tongue coating, and a wiry, slippery and fine pulse.

Acupuncture treatment

Body acupuncture prescription

Group 1: Taixi KID-3, Taichong LIV-3, Xuehai SP-10, Fenglong ST-40, Yanglingquan GB-34, Jianyu L.I.-15, Quchi L.I.-11, Hegu L.I.-4 and Sishencong (M-HN-1).

Group 2: Zhaohai KID-6, Ququan LIV-8, Sanyinjiao SP-6, Guanyuan REN-4, Zhongwan REN-12, Shousanli L.I.-10, Waiguan SJ-5 and Baihui DU-20.

Group 3: Fengchi GB-20, Yamen DU-15, Shaohai HE-3, Houxi SI-3, Geshu BL-17, Pishu BL-20, Shenshu BL-23, Fengshi GB-31 and Qiuxu GB-40.

Explanation

Group 1: Taixi KID-3, Taichong LIV-3 and Xuehai SP-10 nourish liver and kidney yin. Yanglingquan GB-34 relaxes and strengthens the sinews and calms interior wind. Xuehai SP-10 and Hegu L.I.-4 together with Taichong LIV-3 move qi and blood to extinguish liver wind. Fenglong ST-40 together with Xuehai SP-10 transforms phlegm. Jianyu

L.I.-15, Quchi L.I.-11 and Hegu L.I.-4, a chain and lock point combination, move qi, invigorate blood and activate the channels, and are especially good for tremors of the arms. Sishencong (M-HN-1) calms the spirit and settles the will to treat reduced intelligence.

Group 2: Zhaohai KID-6, Ququan LIV-8, Sanyinjiao SP-6 and Guanyuan REN-4 nourish liver and kidney yin to treat the root directly, and extinguish interior wind to treat the manifestation indirectly. Zhongwan REN-12 and Sanyinjiao SP-6 fortify the spleen and regulate the stomach to transform phlegm. Shousanli L.I.-10 and Waiguan SJ-5 are local points for tremors of the upper limbs. Baihui DU-20 opens the orifices and calms the spirit to help intelligence.

Group 3: Fengchi GB-20, Shenshu BL-23, Fengshi GB-31 and Qiuxu GB-40 nourish liver and kidney yin and extinguish interior wind. Geshu BL-17 invigorates blood to help extinguish wind. Pishu BL-20 fortifies the spleen to dissolve phlegm. Shaohai HE-3 and Houxi SI-3 are local points for disorders of the upper limbs. Yamen DU-15 calms the spirit to treat reduced intelligence.

These three groups of points were rotated at each treatment.

Method

30 gauge needles were used with even method and retained for 30 minutes. Three treatments were given every week.

Scalp acupuncture: Commonly used areas included the chorea, motor, leg motor and sensory areas. One area was used each time. The needles were manipulated rapidly (20 to 30 times per minute, lifting and thrusting while rotating) to induce a hot, numb and/or heavy needle sensation for about 2 minutes. The needles were manipulated again every 10 minutes and were retained for 30 minutes. Electricity was applied at a frequency of 10-20 HZ/minute, and an intensity of 20-30 V for 20 minutes.

Pricking and bleeding method: Weizhong BL-40 and Dazhui DU-14 were used alternately, pricking one point each time, every other week. If necessary, cupping was applied to ensure proper bleeding.

Herbal treatment

Sheng Di Huang (Radix Rehmanniae Glutinosae) 12g, Shan Zhu Yu (Fructus Corni Officinalis) 9g, Yuan Zhi (Radix Polygalae Tenuifoliae) 12g, Bai Shao (Radix Paeoniae Lactiflorae) 12g, Bie Jia (Carapax Amydae Sinensis) 15g, Bei Mu (Bulbus Fritillariae) 9g, Hai Zao (Herba Sargassii) 9g, Mu Gua (Fructus Chaenomelis Lagenariae) 9g, Gui Zhi (Ramulus Cinnamomi Cassiae) 12g, Tian Ma (Rhizoma Gastrodiae Elatae) 15g, Long Gu (Os Draconis) 30g, Niu Xi (Radix Achyranthis Bidentatae) 9g, He Shou Wu (Radix Polygoni Multiflori) 12g, Chuan Xiong (Radix Ligustici Wallichii) 9g, Fu Shen (Poriae Cocos Pararadicis Sclerotium) 15g, Mu Xiang (Radix Saussureae seu Vladimiraе) 6g, Zhi Gan Cao (Radix Glycyrrhizae Praeparatae) 6g.

Explanation

Sheng Di Huang (Radix Rehmanniae Glutinosae), Shan Zhu Yu (Fructus Corni Officinalis), Bai Shao (Radix Paeoniae Lactiflorae), Bie Jia (Carapax Amydae Sinensis), Niu Xi

(Radix Achyranthis Bidentatae), Chuan Xiong (Radix Ligustici Wallichii) and He Shou Wu (Radix Polygoni Multiflori) nourish liver and kidney yin intensively to treat the root of the disease. Bai Shao (Radix Paeoniae Lactiflorae) and Niu Xi (Radix Achyranthis Bidentatae) together with Mu Gua (Fructus Chaenomelis Lagenariae) also strengthen and relax sinews to calm interior wind. Tian Ma (Rhizoma Gastrodiae Elatae) and Long Gu (Os Draconis) together with Bie Jia (Carapax Amydae Sinensis) anchor uprising liver yang and extinguish liver wind powerfully. A small dosage of Gui Zhi (Ramulus Cinnamomi Cassiae) warms kidney yang to "get yin through yang" and also helps other herbs in transforming phlegm. Bei Mu (Bulbus Fritillariae), Hai Zao (Herba Sargassii) and Mu Gua (Fructus Chaenomelis Lagenariae) together with Gui Zhi (Ramulus Cinnamomi Cassiae) transform phlegm. Fu Shen (Sclerotium Poriae Cocos Pararadicis), Mu Xiang (Radix Saussureae seu Vladimiraе) and Zhi Gan Cao (Radix Glycyrrhizae Praeparatae) together with Gui Zhi (Ramulus Cinnamomi Cassiae) and Bai Shao (Radix Paeoniae Lactiflorae) regulate the middle burner to strengthen the source of yin and transform phlegm. Yuan Zhi (Radix Polygalae Tenuifoliae) and Fu Shen (Sclerotium Poriae Cocos Pararadicis) together harmonise the kidney and heart to calm the spirit and settle the will.

Preparation method: All the above herbs were ground into powder. He Ye (Folium Nelumbinis Nuciferae) 30g was boiled in 600 ml of fresh water and strained and the resulting decoction was used to boil and then simmer the herbal powder, with 30g each of honey and pork bone marrow. This final decoction was made into small pills to be taken 20g at a time, three times a day, half an hour after meals.

After the patient received Chinese medicine treatment for three months, most clinical signs and symptoms were obviously reduced. After four months treatment, the patient had a lustrous complexion with a variety of facial expressions, quicker reactions, normal sleep and a good mood. Only occasionally did he experience small amplitude uncontrolled tremors of the arms. After two further months of similar treatment, his clinical manifestations entirely disappeared.

Dr. Yufang Xue, Ph.D., is a professor of Chinese medicine diagnostics and internal medicine at the American Academy of Acupuncture and Oriental Medicine (AAAOM). Dr. Xue has received his bachelor's degree at Nanjing University of TCM, a masters degree from Shandong University of TCM, and his Ph.D from Guangzhou University of TCM where he acted as the associate professor.