

# 77 Cases of Treating Parkinson's Disease by Eaulier Systemic Current Treatment Method

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## Abstract

**Objective:** To observe the curative effect of Eaulier systemic current treatment method on Parkinson's disease.

**Methods:** The treatment of 77 patients with primary Parkinson's disease from September 2013 to December 2018 was treated with Eaulier systemic current treatment method, to observe the changes of symptoms and signs, such as quiescent tremor, rigidity, slow movement, abnormal posture and gait, facial expression, fine movement of hand, insomnia, constipation and so on. The curative effect was evaluated according to symptoms, signs and Webster scores. The data were processed by statistics, t-test was used for measuring data and X<sup>2</sup>-test was used for counting data. The difference was significant when P<0.05.

**Results:** After treatment, the symptoms and signs of resting tremor, stiffness, and retardation of movement, abnormal posture and gait, rigid facial expression, inflexible fine movements of hands, insomnia and constipation were significantly improved. Among them, ADL level was significantly improved, with the levels of 70.65 ± 7.11 and 88.87 ± 8.67 before and after treatment, respectively (P< 0.01), and MMSE were 24.43 ± 1.42 and 25.56 ± 1.63 before and after treatment, respectively (P< 0.05). Wechsler's comprehensive assessment was 15.78 ± 2.76 and 8.47 ± 1.81 before and after treatment (P<0.01), and the Hamilton Depression Scale was 49.77 ± 5.37 and 48.96 ± 5.68 before and after treatment (P>0.05). The symptoms and signs of stiff countenance inflexibility of fine hand movements, insomnia and constipation were improved obviously.

**Conclusion:** Eaulier systemic current treatment method has a good effect on Parkinson's disease with no side effects. The method is simple and feasible, and it is worth popularizing to application.

**Keywords:** Eaulier systemic current treatment method • Recovery • Rehabilitation Hospital • Parkinson's disease • Low frequency pulse current

## Introduction

Parkinson's disease (PD) is a common chronic neurodegenerative disease with slow progression. The disease mostly occurs in middle-aged and elderly people, especially in people over 65 years old. The prevalence rate is as high as 1.7%. It is the fourth most common neurodegenerative disease among the elderly. The main manifestations are static tremor, stiffness, slow movement, abnormal posture and gait, which are aggravated progressively, seriously affecting the quality of life of patients, and causing serious burden to families and society. At present, there is no effective treatment for PD. In clinic, patients are usually given Medopa, Senfro, Antane, Amantadine and other drugs, but the curative effect is different. Moreover, after taking these drugs for a long time, the curative effect gradually declines, and patients will have serious side effects such as movement fluctuation, dyskinesia, hallucination, schizophrenia and so on. Seventy-seven patients with Parkinson's disease were treated with Eaulier systemic current treatment method. The results are reported as follows:

77 patients, including 48 males and 29 females. The age of the patients ranged from 51 to 85 years, with an average of 65.21 ± 7.38 years. The course of the disease ranged from 3 months to 13 years, with an average of 6.5 ± 0.25 years. Hoehn Yahr grading method was used to classify the patients: 12 patients of grade 1, 14 patients of grade 1.5, 12 patients of grade 2, 15 patients of grade 2.5, 21 patients of grade 3, 2 patients of grade 4 and 1 patient of grade 5. Among them, 57 patients took drugs, some patients had different degrees of drug efficacy decline, and some patients had serious side effects such as motor fluctuation, dyskinesia, hallucination, schizophrenia and so on. Inclusion and exclusion criteria: 77 patients with primary Parkinson's disease met the diagnostic and differential criteria for Parkinson's disease and Parkinson's syndrome formulated by the National Symposium on Extrapyrimal Diseases in 1984, and excluded patients with secondary Parkinson's disease, Parkinson's superposition syndrome, Parkinson's disease after surgery, or with serious heart, brain, kidney diseases, psychosis, pregnant women, and so on. Anaphylactic to electrical stimulation [1].

## Materials and Methods

### General data

All the selected patients with Parkinson's disease were primary Parkinson's disease in our hospital from September 2013 to December 2018. There were

### Treatment methods

Eaulier systemic current treatment method, including:

1. **Systemic treatment:** 20 minutes, 3/d;
2. **Patch treatment:** The patch was fixed on Taichong, Bailao, Tianzhu, Shenshu, Dazhui + Mingmen, Sanyinjiao, Taixi, Zusanli, Qihai, Guanyuan and other acupoints, 20 minutes, 3/d, each group of acupoints repeat each day;
3. 7 days later, brain cell activation therapy was performed, 1-3 times a week;
4. According to the degree of trunk, limb and language dysfunction, PT (Physical/Exercise therapy), OT (Occupational Therapy) and ST (Speech/Language Therapy) were used for one time each day. The above treatment regimen is a treatment process for 30 consecutive days, generally 1-3 consecutive treatment processes for one period.

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### Evaluation of curative effect

According to the changes of symptoms and signs of patients and Webster score to evaluate the curative effect.

- Clinical control:** Patients' symptoms and signs disappeared, Webster efficacy index >75%;
- Marked effect:** Patients' symptoms and signs were significantly reduced; Webster efficacy index was 50-75%;
- Effective:** Patients' symptoms and signs were alleviated; Webster efficacy index was 30-50%;
- Ineffective:** Patients' symptoms and signs remained unchanged; Webster efficacy index was less than 30%.

Webster efficacy index was: Pre-treatment (Webster score) – post-treatment (Webster score)/pre-treatment (Webster score) × 100%.

The criteria for evaluating other symptoms and signs are as follows:

### Assessment of tremor

- Mild:** Tremor amplitude <2.5 cm;
- Moderate:** Tremor amplitude 2.5 cm ~ 10 cm;
- Severe:** Tremor amplitude >10 cm.

### Muscle stiffness

- Mild:** Stiffness of neck and shoulder, provocation syndrome is positive;
- Moderate:** Stiffness of neck and shoulder, and stiffness when not taking medicine;
- Severe:** Moderate stiffness of neck and shoulder, and stiffness when taking medicine.

### Posture and gait

- Mild:** Spine stiffening, head flexion about 12 cm;
- Moderate:** Spine stiffening, head flexion about 12 cm ~ 15 cm;
- Severe:** Head flexion >15 cm, knee flexion.

### Insomnia

- Mild:** Sleep time 6-4 hours;
- Moderate:** Sleep time 4-2 hours;
- Severe:** Sleep time 2-1 hours.

### Face assessment

- Mild:** Expression is a little stereotyped;
- Moderate:** Expression moderate stereotyped, Mild salivation;
- Severe:** Expression severe stereotyped, serious salivation.

### Hand movements

- Mild:** Fine movements slow down, writing, Buckle is not flexible;
- Moderate:** Hand movements moderately slow down, writing is obviously limited;
- Severe:** Hand movements moderately slow, Cannot write, cannot buckle.

**Statistics method** Statistics analysis was made on the data obtained. t-test was used for the measurement data and X<sup>2</sup> test was used for the counting data. There was significant difference between the two groups if P < 0.05.

## Results

### Symptom improvement

Static tremor, muscle stiffness, posture and gait, movement retardation, insomnia, constipation, lower limb edema, face, hacking, fatigue, handwriting, turning over, the changes of these movements.

From Table 1, it can be seen that the symptoms and signs of resting tremor, muscle stiffness, posture and gait, motor retardation were significantly improved after Eaulier systemic current treatment method.

From Table 2, it can be seen that after Eaulier systemic current treatment method, the insomnia, constipation, lower extremity edema and facial features of the patients have improved significantly.

From Table 3, it can be seen that after Eaulier systemic current treatment method, the patients' drooling and fatigue were alleviated, the handwriting was improved, and the medication was reduced.

### Changes of objective indicators in 77 patients

Muscle tension, activities of daily living (ADL), Mini-Mental State Scale (MMSE), Hoffer walking ability classification and Wechsler comprehensive scale.

Table 4 shows that after Eaulier systemic current treatment method, muscle tension, ADL, MMSE and Hoffer walking have been improved in varying degrees. diseases, widely used in cardio-cerebrovascular diseases,

**Table 1.** Changes of static tremor, muscle stiffness, posture and gait, and motor retardation in 77 patients.

	Static tremor				Muscular rigidity				Abnormal posture and gait				Bradykinesia			
	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity
Pre-therapy	15	15	28	19	20	19	28	10	17	15	33	12	15	21	26	15
Post-treatment	37	22	10	8	35	24	14	4	31	33	10	3	30	25	12	10

**Table 2.** Changes of insomnia, constipation, lower limb edema and facial appearance in 77 patients.

	Insomnia				Constipation				Lower limb edema				Face (mask face)			
	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity
Pre-therapy	25	17	23	12	30	26	16	5	35	20	15	7	30	20	18	9
Post-treatment	47	15	15		47	15	11	4	50	18	9		50	15	12	

From Table 5, it can be seen that the Hoehn Yahr classification and Wechsler's comprehensive scale of the patients have been improved in varying degrees after using Eaulier systemic current treatment method.

From Table 6, it can be seen that after using Eaulier systemic current treatment method, 63 patients' symptoms and signs improved in varying degrees, Webster scores increased, and clinical curative effect was better. The total effective rate was 81.82%.

### Safety observation

In the treatment group, there were 6 cases of side effects, including 2 cases of dizziness, 2 cases of panic, 2 cases of insomnia. No treatment for the side effects. The side effects disappeared after treatment [2].

## Discussion

Parkinson's disease, a common chronic neurodegenerative disease, is the fourth most common neurodegenerative disease among the elderly, with a prevalence rate of 1.7% in middle and elderly people, especially in people over 65 years old. The main manifestations were static tremor, stiffness, slow movement and abnormal posture and gait. Invasive onset, slow progress, and progressive aggravation, it seriously affecting the quality of life of patients, patients' families and society that caused a great burden. The treatment of Parkinson's disease has always been recognized as a difficult medical problem in the world, but there is still a lack of very effective treatment methods. Levodopa and dopamine receptor agonists are commonly used in clinic, but their therapeutic effects are different. Moreover, after taking these drugs for a long time, the curative effect gradually declines, and serious side effects such as symptoms fluctuation, dyskinesia, hallucination and schizophrenia occur.

We used Eaulier systemic current treatment method to treat Parkinson's disease. 77 patients with Parkinson's disease underwent 1-3 courses of treatment. The clinical symptoms and signs such as resting tremor, muscle stiffness, abnormal posture and gait, movement retardation, insomnia, constipation, lower extremity edema, facial stiffness, drooling, fatigue, and small handwriting were significantly alleviated. The patients' muscle tension, abnormal gait, movement retardation, insomnia, constipation, lower extremity edema, facial stiffness, fatigue, and small handwriting were all the objective indicators such as ADL, MMSE, Hoffer walking ability classification and Wechsler's comprehensive scale were also improved. The results of this study showed that Eaulier systemic current treatment method had better curative effect on Parkinson's disease patients and had the significance of popularization and application [3].

Eaulier systemic current treatment method is a new type of electrotherapy which uses low frequency pulse current to act on human body to prevent and treat diseases. It is a combination of health care prevention and treatment. The team of Japanese and Chinese scientists, after many years of research, has created a new type of electrotherapy using new science and technology and unique medical design. It is the perfect fusion of western modern electrotherapy and Chinese Traditional Medicine's acupuncture and moxibustion therapy. Through the reflexes of the different nerve centre in the foot, palm and head, the projection area of the different nerve centres in the head and special acupuncture and moxibustion points, the input of special forms of electrical current, to human tissues to supplement bio-electrical energy, improve body vitality, delay cell aging, relieve all kinds of pain, significantly enhance the heart, brain and other important organ function, give full play to the threshold of self-healing, promote the rehabilitation of various diseases and cure some diseases that the medical profession considers incurable, such as Parkinson's disease, stroke sequelae, Alzheimer's disease, depression and other chronic

Table 3. Changes of salivation, fatigue, handwriting and medication in 77 patients.

	Salivation				Fatigue				Hand movements (inflexibility)				Medication			
	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity	Not seen	Mild	Moderate	Severity
Pre-therapy	30	21	19	7	15	21	26	15	17	21	27	12	20	15	25	17
Post-treatment	50	10	12	5	30	25	12	10	28	30	12	7	24	23	20	10

Table 4. Changes of muscle tone and ADL, MMSE, Hoffer walking ability in 77 patients.

	Muscular tension					ADL	MMSE	Hoffer walking ability							
	Level 0	1	2	3	4			5	Level	I	II	III	IV		
Pre-therapy		20		19	24	10	4	70.65 ± 7.13	24.43 ± 1.22		20		19	24	14
		35		20	10	10	2	85.87 ± 8.53	26.56 ± 1.23		10		11	29	27
T value								5.26	3.48						
P value								P<0.01	P<0.05						

Table 5. Changes of Hoehn\_Yahr grade, Wechsler comprehensive scale and Hamilton depression scale in 77 patients.

	Hoehn_Yahr Classify					Wechsler comprehensive scale				Hamilton depression rating scale	
	Grade	0	1	1.5	2	2.5	3	4	5		
Pre-therapy			7	13	15	12	21	6	3	15.78 ± 2.76	49.77 ± 5.37
Post-treatment			15	18	15	11	11	6	1	9.47 ± 1.31	48.96 ± 5.68
T value										8.94	1.79
P value										P<0.01	P>0.05

Table 6. Evaluation of the comprehensive clinical efficacy of 77 patients

Sample	Clinically cured	Marked effect	Effective	Ineffective	Significant efficiency (%)	Total effective rate (%)
77	10	16	37	14	33.77	81.82

nervous system diseases, bone and joint diseases. Digestive, respiratory, endocrine and other systemic diseases.

It is well known that some functional control areas of the central nervous system including the brain and spinal cord, such as nerve, digestion, circulation, endocrine and so on, have corresponding reflex and projection areas in the plantar, hand and head. In the course of Eaulier systemic current treatment method, electric current stimulates these reflexes and projection areas, regulates the function of central nervous system and vegetative nervous system through conditioned reflex, and enhances the electrical activity of brain cells. To induce the appearance and increase of rhythmic brain waves, to reduce abnormal brain waves, to promote the ordering of EEG activities, to adjust and resuscitate the central nervous system in disorder, and to activate the brain cells in the inhibitory state and to restore them. Activity, so that more brain cells participate in various nervous system functional regulation, thereby enhancing the brain on the body's nerves, metabolism, circulation, respiration, digestion, endocrine, and so on. Eaulier systemic current treatment method can also expand the cerebral vessels, promote the establishment of collateral circulation, increase the blood supply of the brain, improve the hypoxic state of the brain tissue, and accelerate the repair of damaged brain cells.

During the treatment of Eaulier systemic current treatment method, the brain tissue of the patients releases neurotransmitter mediators and vasoactive materials such as kallikrein, bradykinin, acetylcholine and serotonin, causing a series of reactions. For example: Eaulier systemic current treatment method electrical stimulation of the substantia nigra, striatum and globus pallidus, release more dopamine, serotonin and other neuromediators, resulting in the relief of Parkinson's disease patients with (PD) symptoms such as tremor, stiffness, inactivity, and so on. Ease of activity and improvement in mental state.

The human hand is the intersection of the Sanyin and Sanyang channels of hand, and the foot is the intersection of the Sanyin and Sanyang channels of the foot (twelve meridians). In addition, eight odd meridians such as Ren, Du, Chong, Dai, Yangqiao, Yinqiao, Yangwei, Yinwei, branches of the twelve channels, musculature of twelve meridians and twelve skin areas are all connected with the above twelve meridians, which distribute all over the body and form a huge meridian network. Meridians and collaterals are channels

for the movement of Qi and blood. They can go into the internal organs and distribute all over the body to regulate the functions of the internal organs. Eaulier systemic current treatment method is that the current acts on the hand and foot parts, through stimulating the acupoints of the hand and foot parts, dredging the meridians, achieving the function of promoting Qi and blood circulation, and enhancing the functions of viscera. The patch can activate brain cell and can also act on different meridians and acupoints through the current, dredge meridians and collaterals, promote Qi and blood circulation, enhance viscera function, and achieve the effect of disease elimination and body strengthening [4].

## Conclusion

In a word, Eaulier systemic current treatment method current can expand cerebrovascular, promote collateral circulation, improve oxygen and blood supply of brain group, enhance the activity of enzymes, promote the release of nerve media, accelerate the metabolism of brain tissue, accelerate the repair of injured brain cells, improve the function of central nervous system and vegetative nervous system, and also improve the biological electrical activity of brain cells, evoke rhythm of normal brain waves and reduce abnormal brain waves. Activate the brain cells which in the inhibited state, promote the brain cell activities in an orderly state, and adjust and resuscitate the disordered brain function and nervous system.

## References

1. Chen, Jingzao. "Modern Physiotherapy" *Beijing: People's Military Medical Publishing House* (2001).
2. Zhiheng, Qiao. "New Physical Therapy" *Beijing: Huaxia Publishing House* (1993).
3. Dahong, Zhuo. "Chinese Rehabilitation Medicine" *Beijing: Huaxia Publishing House* (1990).
4. Fujin, Zhang. "Physiotherapy of Parkinson's Disease" *Foreign Medical-Physical Medicine and Rehabilitation Brochure 4* (1990): 174.

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