Stellate Ganglion Block in Patients With Advanced Primary Parkinson's Disease: a Small, Open, Randomized, Controlled Clinical Study

Informed consent to participate in research projects

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Dear Subject:

Hello! We sincerely invite you to participate in the "Clinical study of stellate ganglion block in the treatment of patients with advanced Parkinson's disease - a small sample, open-label, randomized controlled clinical study" approved by Zhujiang Hospital of Southern Medical University. It will be carried out at Zhujiang Hospital and 38 subjects are expected to volunteer. This study has been reviewed and approved by the Ethics Committee of Zhujiang Hospital of Southern Medical University.

Your participation in this study is entirely voluntary, and you may choose not to. If you decide not to participate, it will not affect your relationship with your doctor. In order for you to decide whether or not to participate in this study, it is important to understand in detail what this study is about. Please read the following information carefully and discuss it with your family, friends and doctor. If there is anything you do not understand or if you would like to learn more about this study, please feel free to ask your doctor.

1. Background and purpose of the research

Parkinson's disease (PD) is a relatively common degenerative disease of the central nervous system, and China's population has grown significantly over the past few decades, resulting in a rapid increase in the number of elderly people; 2016 Global Burden of Disease Study Report According to the report, the number of PD patients in China accounts for about 23% of the total PD population in the world; by the end of 2020, it is estimated that the number of people with Parkinson's in China will be about 3.62 million, and it is estimated that by 2030, 50% of the PD patients in the world will be Chinese. Parkinson's disease is mainly manifested by motor symptoms such as bradykinesia, rigidity, tremor, and non-motor symptoms such as autonomic dysfunction, sleep disturbance, and hyposmia.

Both motor symptoms and non-motor symptoms can significantly affect the quality of life of patients. At present, the treatment guidelines for Parkinson’ s at home and abroad are still the first choice for drug treatment represented by dopa. However, in the middle and late stages of the disease, side effects such as symptom fluctuation or dyskinesia complicated by long-term medication gradually appear, and the patient’ s efficacy on levodopa declines. Seriously affect the patient's quality of life. For patients with advanced Parkinson's disease, the current anti-parkinsonian guidelines advocate drug therapy combined with non-drug therapy for comprehensive treatment. Deep brain stimulation (DBS), as the main non-drug treatment for Parkinson's disease, has limited its wide clinical application due to its complicated operation, invasiveness, high cost and many side effects, while conventional rehabilitation therapy is limited to language, Some functional exercises such as swallowing have limited efficacy, so it is imperative to find new treatments for Parkinson's disease.

2. Research object

Inclusion criteria:

1) Age 45-80 years old;
2) Parkinson's disease patients who meet the 2016 International Movement Disorder Society (MDS) diagnostic criteria for "probable PD" or "diagnosed PD";
3) Patients or their legal guardians agree to participate in this study and sign the informed consent;
4) Hoehn-Yahr（H&Y）level 3 to 5;

Exclusion criteria:

5） Those who are allergic to local anesthetics;

6） Those who cannot cooperate with the monitoring of sports and non-motor functions;

7） Exclude Parkinsonian syndromes, such as corticobasal ganglia degeneration, dementia with Lewy bodies, patients with multiple system atrophy, progressive supranuclear palsy; and secondary Parkinsonism syndromes, such as vascular parkinsonism, drug poisons or patients with Parkinson's syndrome caused by trauma;

8） Those who refuse to sign the informed consent form.

Exit criteria

1) Subjects should withdraw from the study when they have abnormal vital organ function, allergic reactions to drugs, poor compliance, aggravation of disease, or serious adverse reactions that need to stop the study drug treatment or use other treatment methods during the study;

2) Subjects who are ineffective, cannot tolerate adverse reactions, wish to take other treatment methods or request to withdraw from the researcher without any reason.

3.Research process and methods

Screening visit

The study will begin with a screening visit. The purpose of the screening visit is to test whether you meet all the conditions for participation in this study.

If you are eligible to participate in the study and choose to participate in the study, you will begin study treatment.

Research program

This is a clinical study of "Interventional Clinical Study of Stellate Ganglion Block Therapy in Patients with Advanced Parkinson's Disease", that is, you will be randomly assigned to an experimental group and a control group.

1）During the screening visit, the following procedures will be performed/collected:

Informed consent: After introducing the study to the subjects in detail and answering the subjects' doubts, the informed consent form signed by the patients was obtained. Signs of pre-informed laboratory tests and imaging assessments for routine clinical care, if relevant data are available within the specified window period. (If there is an emergency in the project and the subjects or their guardians cannot sign the informed consent form before the study, it needs to be clearly explained here) After informed consent, the following procedures can be performed.

Demographics: date of birth, gender, race, education, marriage, occupational information;

Relevant medication/surgery history;

vital signs: blood pressure, pulse rate, respiration and temperature;

Physical examination; Internal medicine and neurology physical examination;

Laboratory tests: blood routine, serum biochemistry, coagulation, ceruloplasmin, gene expression level;

previous/concomitant medications;

Blood biomarkers: IL-2, APEO, α-synuclein, DJ-1 protein, etc.;

Imaging examination: head MRI + susceptibility-weighted imaging;

Madopa equivalent dose;

Modified MDS-UPDRS scale;

NMSS scale;

PDQ-39 scale;

H&Y classification;

LDE;

10M-WT;

2）Randomization stage: Patients who meet the recruitment conditions will be randomized into groups by stratified randomization method, and each subject will be assigned an equal probability to the experimental group and the control group. The treatment cycle in the randomization stage lasted for 3 months. The experimental group was treated with stellate ganglion block therapy + standard Parkinson's western medicine, and the control group was treated with standard Parkinson's western medicine. Both groups received 3 cycles of treatment, each treatment cycle Signs, physical examination of the nervous system, laboratory tests, imaging tests, Parkinson's scale and other tests were performed to evaluate the overall condition of the patients.

3）Treatment stage: V2 4 weeks, V3 8 weeks, V4 12 weeks

During each treatment visit, the following procedures will be performed or the following metrics will be collected:

Detailed description: The following examinations need to be completed: vital signs; physical examination; laboratory examination; blood biomarkers: IL-2, APEO, etc.; imaging examination: head MRI + susceptibility-weighted imaging (V4 only); Madopa Equivalent dose; modified MDS-UPDRS scale score; NMSS scale; PDQ-39 scale; H&Y classification; LDE; 10M-WT.

Treatment phase procedure:

This study was a randomized controlled clinical study, and the experimental group was supplemented with stellate ganglion block (SGB) on the basis of standard treatment.

4. Matters that require the cooperation of the subjects

It may cause discomfort or inconvenience to you during information collection, scale evaluation and related tests and inspections. The entire study period will last 3 months, during which time it may cause inconvenience to your personal life. We will monitor your discomfort closely and may take some reassuring measures to reduce your discomfort.

5. Possible benefit

Your condition or health may improve as a result of the research treatment, and our clinical assessment of your results will be fed back and discussed with your physician in charge. There may be benefits to your diagnosis and treatment, but we do not guarantee that you will be in any way benefit. The information from this study may help other patients in the future.

6. Possible risks and discomfort

During the process of stellate ganglion block, there may be the following operational risks: 1) Allergy to anesthetics, poisoning, hypersensitivity reactions, leading to arrest of breathing and heartbeat; 2) Complications of the circulatory system: hypotension, hypertension, arrhythmia, Heart failure, shock, etc.; 3) Respiratory system complications: respiratory depression, airway obstruction, laryngospasm, hypoxemia; vomiting, reflux, aspiration; 5) postoperative cognitive dysfunction, headache, dizziness, urinary retention; 6) temporary change of anesthesia method during surgery; 7) other unpredictable complications.

Some personal privacy may be involved in the process of information collection. We will 1) actively communicate and ensure that relevant information is only used for clinical research and shall not be used for other purposes; 2) minimize physical discomfort during scale evaluation; 3) Inform in advance when completing relevant inspections, and deal with it in time when discomfort occurs; 4) Inform in advance when completing stellate ganglion block, and deal with it in time when discomfort occurs; 5) Any adverse reactions for any reason can be obtained 6) When necessary or requested by patients and their families, they can withdraw from the study at any time.

7. Treatment of research-induced injuries

During clinical research, investigators should pay close attention to the occurrence of relevant adverse events. Once a relevant adverse event occurs, the study should be stopped immediately and necessary measures should be taken to ensure the safety of the subjects.

8. Other alternative treatments available to the subject

Your research doctor will discuss with you the standard and standardized diagnosis and treatment plan, 1. Before enrollment: conduct a series of demographic information, medical history, physical signs, physical examination of the nervous system, laboratory tests, imaging tests, Parkinson's scale, etc. Screening; 2. During the intervention follow-up period: perform stellate ganglion block cycle treatment, and evaluate the scale condition regularly; 3. During the observation follow-up period: perform physical signs, neurological physical examination, laboratory examination, imaging examination, par The Kinson Scale is used to evaluate the treatment effect of patients throughout the study period, and to evaluate the occurrence and development of the patient's disease throughout the study period. You can also choose not to participate in this study, we will give you standard western medicine treatment, rehabilitation physiotherapy.

9. Research related costs

The cost of the stellate ganglion block in this study is borne by the investigator, you can obtain free information on the latest progress in disease prevention and treatment from the study physician, and the routine medical expenses (such as laboratory tests arising from hospitalization) are borne by the patient.

10. Privacy and Confidentiality

Your medical information will be kept confidential at all times. In addition to your research doctor, government regulatory agencies and ethics committees may review your original medical information related to the research to ensure that the research is standardized and the data is true and reliable. But all information will be kept confidential and the results of this study may be published in a medical journal without revealing your identity.

11. Approval of human genetic resources

International cooperation projects involving the collection, collection, preservation, export and exit of biological specimens (if involved) involving human genetic resources will be declared in accordance with the relevant review requirements of the China Human Genetic Resources Management Office, and approval will be obtained and will be started after filing with the Ethics Committee.

12. Contact information

If you have any concerns or questions about the study, or in the event of any emergency, please contact your doctor promptly. Please save this information.

Doctor's Name (Print):_____

Contact number (mobile phone):_____

If you have any questions about your rights, you can contact: Medical Ethics Committee of Zhujiang Hospital of Southern Medical University, telephone number: 020-62783254.

13. More information

Your doctor will keep you informed of any important new information during the study that may affect your willingness to continue participating in the study.

Subject Statement:

I have read the above and understand the nature, purpose, and risks and benefits of this study, and have had the opportunity to discuss and ask questions about this study with my doctor. All my questions have been answered satisfactorily.

I will comply with the subject instructions and fully cooperate with the researcher to truthfully and objectively provide the researcher with the health status and related conditions before participating in this study, during the study and during each follow-up period.

I understand that participation in the study is voluntary, I acknowledge that I have had sufficient time to consider this, and I understand that I can withdraw from the study at any time without my subsequent treatment being adversely affected, and I understand that physicians have the right to at any time in accordance with my circumstances Suspend the study.

I hereby express my consent to participate in this clinical study, this informed consent form is in duplicate, and I will obtain a signed and dated informed consent form.

Subject Signature:_____

Contact number:_____

Date:_____

(If applicable) Signature of legal representative: _____

Relationship to Subject: _____

contact number:_____

Note: Subjects must be given sufficient time to consider whether they are willing to participate in the research. For subjects who are incapable of expressing consent, the above introduction and explanation should be provided to their legal representatives.

(If applicable) Signature of an impartial witness: _____

contact number:_____

Date:_____

Investigator Statement:

I have explained the details of the study to the above study subjects and have provided the subjects with a signed informed consent form.

Investigator Signature: _____

contact number:_____

Date:_____