

Informed Consent • Information Page

Dear patient:

The doctor has made a definite diagnosis that you have primary retinitis pigmentosa (RP). We will invite you to participate in a clinical study on acupuncture treatment of retinitis pigmentosa. This study was funded by The third Sichuan Ten famous Chinese medicine studio construction (CJJ2019030). The study has been approved by the Ethics Committee of the Chinese Clinical Trail Registry.

Before you decide whether to participate in this study, please read the following as carefully as possible. It can help you understand the study and why it was undertaken, the procedure and duration of the study, and the benefits, risks, and discomfort associated with participating in the study. If you wish, you can also discuss it with your relatives or friends, or ask your doctor for an explanation to help you make a decision.

1. Research background and purpose

1.1. Burden of disease and current status of treatment

Primary retinitis pigmentosa (RP) is a group of diseases where a large number of mutations cause the rod type photoreceptors to die. After the rod type dies, the cone type photoreceptors gradually degenerate in a unique pattern. RP is mainly manifested as visual field defects and progressive night blindness, speciality examination showed abnormal electroretinogram (ERG), with typical triple signs of optic nerve waxy atrophy, vascular thinning and osteocellular pigmentation. It is a common hereditary retinal disease in ophthalmology, with an incidence of about 1/4000 of the world. The factors influencing the development of RP have not been fully defined, but it is generally believed that genetics is the most important factor. From the perspective of genetics, there are mainly autosomal dominant retinitis pigmentosa (ADRP), autosomal recessive retinitis pigmentosa (ARRP), and X-linked inheritance retinitis

pigmentosa (XLRP). There are also a few RP genetic patterns that are mainly inherited by mitochondria and double genes.

The main therapeutic methods for RP are nutrition therapy, neuroprotection therapy, stem cell therapy, gene therapy, etc. 1)Nutritional therapy: Vitamin A is the main nutrient in the treatment of RP, and the usual dose is 15 thousand IU/d. Studies have shown that supplementation of carotenoids can delay the decline of visual function in RP patients treated with vitamin A, and the biological mechanism of supplementation of carotenoids may include blue light filtering and antioxidant. 2)Neuroprotective therapy: neuroprotective therapy can be achieved by delivering neurotrophic growth factors or by inhibiting pro-apoptotic pathways. 3)Stem cell therapy: Stem cell therapy is the application of healthy stem cells to replace the degraded retinal cells, promote cell regeneration and create new intercellular connections, so as to improve the visual function of RP patients. In 2010, the United States, approved by FDA for human retinal disease I / II stem cell clinical trials, the combination of the United States and European countries RPE cells derived from human embryonic stem cell research, domestic also started a similar study in 2015. 4)Gene therapy: the mechanism of gene therapy is through the use of viral or non-viral vectors to transfer therapeutic genes, and the need for genetic modification of eye cells to produce therapeutic effects.

The current research focuses on retinal transplantation, stem cell therapy and gene therapy, but retinal transplantation and stem cell therapy have many complications, and most gene therapy is still in the experimental stage and cannot be used clinically. No matter what kind of modern medical treatment means can not cure RP, so it is urgent to actively explore and develop a safe and effective treatment for RP.

1.2. Purpose of this study

Through randomized single-blind, sham-controlled clinical trials, starting from the foothold of have a scientific basis for the method to assess the curative effect of acupuncture treatment for RP and differences. It provides evidence-based medicine for TCM treatment of RP, and also provides effective and safe methods for delaying

the progression of RP.

1.3. Research institution and the number of participants

1.3.1. All subjects are from the outpatient department of the Hospital of Chengdu University of Traditional Chinese Medicine.

1.3.2. 72 participants will be included, inclusion criteria are as follows:

- a. Patients who meet the diagnostic criteria for primary retinitis pigmentosa;
- b. Aged 7–80 years (either sex), the course of disease is not limited;
- c. Written informed consent. The process of obtaining informed consent conforms to the requirements of clinical trial management standards.

2. Exclusion criteria

- a. Best corrected visual acuity(BCVA) is less than 0.1;
- b. Patients with other ophthalmic diseases such as amblyopia, diabetic retinopathy, glaucoma, severe cataract, etc., which affect vision or other blinding eye diseases;
- c. Patients with severe primary diseases such as cardiovascular and cerebrovascular, liver, kidney and hematopoietic system, as well as psychiatric patients;
- d. Patients receiving other related drugs or treatment for primary retinitis pigmentosa within 2 weeks;
- e. Poor compliance, or participating in other clinical trials.

3. What will you need to do if you participate in the study?

3.1. Before you to be included in the study, the doctor will ask and record your medical history. The doctor will arrange some tests for you free of charge, including the best corrected visual acuity(BCVA), visual field Mean Sensitivity(MS) and visual field Mean Deviation(MD), ERG waveform changes, central macular thickness(CMT), subfoveal choroidal thickness(SFCT), TCM syndrome score, and the scale of life quality for diseases with visual impairment(SQL-VI). In addition, some safety measures that include trauma will also be included, such as blood tests, urine tests,

faecal tests, liver function (alanine aminotransferase and aspartate aminotransferase), renal function tests (serum creatinine and blood urea nitrogen), and electrocardiogram.

You are eligible to participate in the study and sign the informed consent. If you do not wish to participate in the study, we will treat you as you wish.

3.2. If you are willing to participate in the study, you will follow the following steps:

This project is carried out in the Hospital of Chengdu University of Traditional Chinese Medicine. After you participate in this project, you will be randomly assigned to either the acupuncture group or the sham acupuncture group. The specific treatment methods of each group are as follows:

Acupuncture group: the patients were treated with acupuncture, which was as follows: the patients were placed in the sitting or supine position. The selected acupoints around the eye were Taiyang(EX-HN5), Cuanzhu(BL2), Yuyao(EX-HN4), Qiuhou(EX-HN7), Jingming(BL1), and the full body acupoints were Baihui(GV20), Hegu(LI4), Taichong(LR3), Sanyinjiao(SP6), Zusanli(ST36). After the local skin of the patient and the hands of the physician were routinely disinfected with 75% ethanol, both hands were used for needle insertion, and disposable acupuncture needles (0.25mm×25mm) were inserted into the acupoint skin (approximately 10-20 mm depth), and then manipulations of twirling, lifting, and thrusting will be performed on all needles for at least 10 s to reach De qi (a compositional sensation including soreness, numbness, distention, and heaviness), which is believed to be an essential component for acupuncture efficacy. Needles will be retained in these acupoints for 20-30 min.

Sham acupuncture group: non-meridian and non-acupoint treatment was performed, specifically as follows: the patient was placed in the sitting or supine position, and the selected sham acupoint was at the midpoint of the line between the adjacent meridian acupoints (Sizhukong, Sibai, Touwei, etc.) and the acupoint. After the local skin of the patient and the hands of the physician were routinely disinfected with 75% ethanol, both hands were used for needle insertion, and disposable acupuncture needles (0.25mm×25mm) were inserted into the acupoint skin (approximately 10-20 mm

depth), Do not twist, lift or push all needles to achieve De Qi (a compositional sensation including soreness, numbness, distention, and heaviness). Needles will be retained in these acupoints for 20-30 min.

The above treatment was performed 4 times a week. One month is a course of treatment, a total of 3 courses of treatment.

3.3. Other matters requiring your cooperation

You must come to the hospital with your medical record and personal treatment diary card at the follow-up time agreed by the doctor (during the follow-up period, the doctor may know your situation by phone or by visiting the door). Your follow-up is important because your doctor will determine whether the treatment you are receiving is really working and will guide you in a timely manner.

Please fill in your records of acupuncture treatment in a timely and objective manner.

Please bring any other medications you are taking, including medications you may continue to take if you have other co-existing conditions.

You may not take any other medication for primary retinitis pigmentosa during the study period. If you need additional treatment, please contact your doctor in advance.

4. Possible benefits of participating in the study

Your participation in this study will help increase your understanding of primary retinitis pigmentosa and provide you with relevant health education opportunities. You can receive acupuncture treatment, medical optometry, visual field examination, OCT, blood routine, urine routine, stool routine, liver function, kidney function and electrocardiogram free of charge.

Although evidence has suggested that acupuncture has a satisfactory effect in the treatment of primary retinitis pigmentosa, this does not guarantee that it will be effective for you. Acupuncture in this study is not the only method to treat primary retinitis pigmentosa. If this treatment is not effective for your condition, ask your doctor about possible alternative treatments.

5. Possible adverse reactions, risks and discomfort, inconvenience to participate in the study

Acupuncture therapy is a minimally invasive operation, and some inevitable conditions may occur, as follows:

Fainting during acupuncture treatment: due to the special constitution of the patient, or the fear of acupuncture, or an empty stomach may occur fainting during acupuncture treatment.

Sticking of the needle: due to the patient's mental tension or position changes, there may be sticking of the needle in the process of acupuncture.

Hematoma: As acupuncture is an invasive treatment, local swelling, skin bruising, or local bleeding may occur after acupuncture.

Residual feeling after acupuncture: due to the patient's constitution and the particularity of acupuncture treatment, local pain, swelling pain, numbness and other uncomfortable feelings may occur after acupuncture.

Allergy: Due to the special constitution of the patient, he may be allergic to metal or adhesive tape, local skin pruritus, swelling, ecdysis and other conditions.

If you experience any discomfort during the study period, or if there is a new change in your condition, or if there is any accident, whether or not it is related to the study, you should inform your doctor in a timely manner and he/she will make a judgment and give appropriate medical treatment.

During the study period, you need to go to the hospital for follow-up visits and some examinations on time, which may take up some of your time and cause trouble or inconvenience to you.

6. Correlative charges

Inform patients about what is free and what needs to be paid for during diagnosis and treatment.

When patients are informed of adverse reactions, whether the investigator is

responsible for the costs of the adverse reactions and the possible compensation the patient may receive. Doctors will do their best to prevent and treat any harm that may result from this study. If an adverse event occurs in a clinical trial, a committee of medical experts will determine whether it is associated with acupuncture or an underlying treatment drug. The sponsor will provide the cost of treatment and the corresponding economic compensation for the trial-related damages in accordance with the Provisions of the <Quality Management Standards for Pharmaceutical Clinical Trials> of China.

Treatment and testing for other diseases that you have combined will not be free of charge.

7. Confidentiality of personal information

Your medical records (study records /CRF, laboratory tests, etc.) will be fully preserved at the hospital where you are attending. Your doctor will record the results of your tests and other tests on your medical record. Researchers, ethics committees, and drug regulatory authorities will be allowed access to your medical records. Your identity will not be disclosed in any public report of the results of this study. To the extent permitted by law, we will make every effort to protect the privacy of your personal medical data.

In accordance with medical research ethics, in addition to personal privacy information, trial data will be available for public inquiry and sharing, which will be limited to web-based electronic databases to ensure that no personal privacy information will be disclosed.

8. How to get more information?

You can ask any questions about this study at any time and get answers accordingly.

Your doctor will keep you informed if there is any important new information during the course of the study that could affect your willingness to continue to participate in the study.

9. You can choose to participate in the study or drop out of the study

Participation in the study is entirely up to you. You may refuse to participate in the study or withdraw from the study at any time during the study, which will not affect your relationship with the doctor or affect your medical treatment or other benefits.

In your best interest, your continued participation in the study may be discontinued at any time during the course of the study by your physician or investigator.

If you withdraw from the study for any reason, you may be asked about your treatment with acupuncture. You may also be required to undergo a laboratory and medical examination if your doctor deems it necessary.

10. What to do now?

It is up to you (and your family) to participate in this study.

Before you make the decision to participate in the study, ask your doctor as much as you can about it.

Thank you for reading the above material. If you decide to participate in this study, please tell your doctor and he or she will arrange for you to participate in the study. Please keep this information.

Informed consent • Consent Signature Page

Name of Clinical Research Project: _____

Project Undertaking Organization: _____

Project Cooperation Organization: _____

Project Assignment No.: _____

Declaration of Consent

I have read the above introduction to this study and have had the opportunity to

discuss and ask questions about this study with my doctor. All my questions have been satisfactorily answered.

I am aware of the possible risks and benefits of participating in this study. I understand that the study is voluntary, I confirm that I have had enough time to consider it, and I understand that:

- a. I can always consult my doctor for more information.
- b. I can withdraw from this study at any time without discrimination or retaliation, and my medical treatment and rights will not be affected.

I also know that if I withdraw from the study in the middle of the study, especially if I withdraw from the study due to medical reasons, it will be of great benefit to the whole study if I inform my doctor of the change of my condition and complete the corresponding physical examination and physical and chemical examination.

If I need to take any other medication as a result of my disease, I will consult my doctor in advance or tell my doctor truthfully afterwards.

I agree to allow the Ethical Committee of the DRUG regulatory authority or the sponsor's representative to access my research materials.

I will receive a signed and dated copy of the informed consent.

In the end, I decided to agree to participate in the study and promised to follow my doctor's advice as much as possible.

Patient signature: _____ Date: _____

TEL: _____

I confirm that I have explained to the patient the details of the trial, including its rights and potential benefits and risks, and have given him a copy of his signed informed consent.

Doctor signature: _____ Date: _____

TEL: _____