# The effect of Dr Allen's Device and Thermobalancing Therapy on erectile dysfunction in men with chronic prostate diseases

Submission date	Recruitment status  No longer recruiting	[X] Prospectively registered		
17/12/2022		[X] Protocol		
Registration date 09/01/2023 Last Edited	Overall study status Completed Condition category	[X] Statistical analysis plan		
		Results		
		Individual participant data		
20/05/2024	Urological and Genital Diseases	Record updated in last year		

## Plain English summary of protocol

Background and study aims

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) and benign prostate enlargement (BPE) – also known as an enlarged prostate or benign prostatic hyperplasia (BPH) – are common health conditions among men. The prevalence of histologically diagnosed BPE increases from 8% in men aged 40 years old to 40-50% in men aged 51 to 60 years old, to over 80% in men older than age 80 years. These health problems are often accompanied by erectile dysfunction (ED). It has been confirmed that novel thermobalancing therapy with Dr Allen's Device for Prostate Treatment reduces prostate inflammation in patients with CP/CPPS, decreases the size of benign prostate enlargement, and eases lower urinary tract symptoms (LUTS) associated with BPE. Also, this treatment has a positive effect on the health-related quality of life (HRQoL) in men with CP/CPPS and BPE. Moreover, no complications associated with the use of Dr Allen's Device have ever been observed in patients with BPH and chronic prostatitis. Many studies show that commonly used medications and surgeries for CP/CPPS and BPE have a negative effect on the HRQoL, and lead to ED. Standard treatment options with drugs can cause side effects, especially in long-term use. Surgical interventions are associated with irreversible complications. Most of these side effects and complications affect erectile and sexual function causing emotional problems and depression. Solving these problems is, therefore, extremely important for men's long-term health and well-being. Therefore, this study will evaluate thermobalancing therapy for ED and HRQoL in men with CP/CPPS and BPE. It is anticipated that Dr Allen's Device and thermobalancing therapy will treat ED and improve erectile function, reduce the size of the inflamed or enlarged prostate gland, reduce urinary symptoms, and improve the quality of life in men with chronic prostatitis (CP/CPPS) or benign prostate enlargement (BPE). The findings may allow us to recommend this novel out-of-hospital treatment as a new safe solution for ED.

Who can participate?

Men aged between 40 and 55 years old with ED due to CP/CPPS or BPH

#### What does the study involve?

Thermobalancing therapy improves blood circulation in the affected prostate gland by means of local temperature regulation for a prolonged period of time. It is achieved with the continuous use of the wearable Dr Allen's Device. Dr Allen's Device for Prostate Treatment is designed as a soft belt with a thermoelement made from a special wax-based material. It maintains the required temperature when retained on the body; it needs to be placed correctly with the thermoelement covering the coccyx area of the back. A total of 100 participants will be recruited for the study: 50 participants will be placed in the treatment group and 50 participants will be placed in the control group. Every participant will be randomly assigned to either the treatment group or the control group. Thermobalancing therapy with Dr Allen's Device will be used as a monotherapy. Patients in the treatment group will use Dr Allen's Device. Patients in the control group will be under watchful waiting and will not receive treatment with Dr Allen's Device. Every participant will be assessed 3 times during the study: before the start of the treatment, and 3 and 6 months after the start of the treatment.

# What are the possible benefits and risks of participating?

The benefits of participating in this study include receiving a non-invasive and totally safe treatment with thermobalancing therapy and Dr Allen's Device designed to improve erectile function and overall wellbeing in men with chronic prostatic diseases. Dr Allen's Device provides an at-home treatment, without the need for hospitalisation or any other medical interventions. Dr Allen's Device is easy to use and does not impede daily activities of its user. There are no risks associated with the use of Dr Allen's Device, which is a Class 1 Medical Device.

Where is the study run from? Fine Treatment (UK)

When is the study starting and how long is it expected to run for? June 2022 to November 2023

Who is funding the study? Fine Treatment (UK)

Who is the main contact? Fine Treatment, info@finetreatment.com (UK)

# Study website

https://finetreatment.com/

# **Contact information**

# Type(s)

Principal Investigator

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# Additional identifiers

# **EudraCT/CTIS** number

Nil known

**IRAS** number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

CT-5-ED-TT-DAD

# Study information

#### Scientific Title

Investigation of the effect of Thermobalancing therapy and Dr Allen's Device for Prostate Treatment on erectile dysfunction, prostate volume, and health-related quality of life in men with chronic prostatitis/chronic pelvic pain syndrome and benign prostate enlargement

# **Acronym**

#### TT-DAD-ED-CP-BPE

## Study objectives

The out-of-hospital treatment with Thermobalancing therapy and Dr Allen's Device for Prostate Treatment is expected to improve erectile function, reduce the size of the inflamed or enlarged prostate gland, reduce urinary symptoms, and improve health-related quality of life in men with chronic prostatitis/chronic pelvic pain syndrome and benign prostate enlargement.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Approved 06/07/2022, the Ethics Review Committee of the Government College University Faisalabad (Kotwali Road, Faisalabad, Punjab, 38000, Pakistan; +92(0)419200876; drmhrasool@gcuf.edu.pk), ref: GCUF/ERC/110

## Study design

Single-centre prospective interventional randomized controlled trial

#### Primary study design

Interventional

# Secondary study design

Randomised controlled trial

# Study setting(s)

Home

## Study type(s)

Treatment

#### Participant information sheet

Not available in web format, please use contact details to request a participant information sheet.

# Health condition(s) or problem(s) studied

Treatment for erectile dysfunction in patients with benign prostate enlargement or chronic prostatitis/chronic pelvic pain syndrome

#### **Interventions**

The purpose of this clinical trial is to investigate the effect of the out-of-hospital treatment with Thermobalancing therapy and Dr Allen's Device for Prostate Treatment on erectile dysfunction, the size of the inflamed or enlarged prostate gland, urinary symptoms, and health-related quality of life (HRQoL) in men with ED linked to CP/CPPS or BPE.

Chronic prostatitis / chronic pelvic pain syndrome (CP/CPPS) and benign prostate enlargement (BPE) – also known as an enlarged prostate or benign prostatic hyperplasia (BPH) – are common health conditions among men. CP/CPPS affects 8.2% of men. The prevalence of histologically diagnosed BPE increases from 8% in men aged 40, to 40-50% in men aged 51 to 60, to over 80% in men older than age 80. These health problems are often accompanied by erectile dysfunction (ED).

It has been confirmed that novel Thermobalancing therapy and Dr Allen's Device for Prostate Treatment reduce prostate inflammation in patients with CP/CPPS, decrease the size of benign prostate enlargement, and ease lower urinary tract symptoms (LUTS) associated with BPE. Also, this treatment has a positive impact on the health-related quality of life in men with CP/CPPS and BPE. Moreover, no complications associated with the use of Dr Allen's Device have ever been observed in patients with BPH and chronic prostatitis.

Many studies show that commonly used medications and surgeries for CP/CPPS and BPE have a negative effect on the quality of life, and lead to ED. Standard treatment options with drugs can cause side effects, especially in long-term use. Surgical interventions are associated with irreversible complications. Most of these side effects and complications affect erectile and sexual function causing emotional problems and depression. Solving these problems is, therefore, extremely important for men's long-term health and well-being.

Therefore, new research on Thermobalancing therapy for ED and health-related quality of life in men with CP/CPPS and BPE is needed.

A total of 100 participants will be recruited for the study: 50 participants with ED due to CP /CPPS and 50 participants with ED due to BPH. Every participant in each of these 2 groups will be randomly assigned to either the treatment groups or the control groups in equal numbers of 25 participants in each group.

Thermobalancing therapy with Dr Allen's Device will be used as a monotherapy. Every participant in the treatment groups will be investigated during the clinical trial 3 times: before the start of the treatment, 3 and 6 months after the start of the treatment. Every participant in the control groups will be investigated during the clinical trial also 3 times: at the start of the observation period, 3 and 6 months later.

Patients in the treatment groups will use Dr Allen's Device. Patients in the control groups will be placed under watchful waiting and will not receive treatment with Dr Allen's Device. The data collected from the treatment groups will be compared to the control groups in watchful waiting. No other interventions, including medications and surgical procedures, will be used.

#### Intervention Type

Device

#### Phase

Not Applicable

# Drug/device/biological/vaccine name(s)

Dr Allen's Device

#### Primary outcome measure

The following outcomes will be assessed three times in total, before, during and at the end of the treatment period:

- 1. Severity of erectile dysfunction measured using the International Index of Erectile Function (IIEF-5) Questionnaire
- 2. Volume of the prostate gland measured using ultrasound
- 3. Severity of urinary symptoms measured using the AUA Symptom Score Questionnaire

## Secondary outcome measures

The following outcomes will be assessed three times in total, before, during and at the end of the treatment period:

- 1. Health-related quality of life (HRQoL) measured using the Short Form Survey Instrument (SF-36)
- 2. Serum levels of prostate-specific antigen, total testosterone, and  $17\beta$ -estradiol (E2) measured using blood samples and standard techniques

## Overall study start date

01/06/2022

# Completion date

01/11/2023

# **Eligibility**

#### Key inclusion criteria

Aged between 40 and 55 with ED due to CP/CPPS or BPH

#### Participant type(s)

Patient

#### Age group

Adult

#### Sex

Male

# Target number of participants

The target sample size is 100 patients

#### Total final enrolment

100

#### Key exclusion criteria

- 1. Previous prostate surgeries
- 2. Infectious diseases
- 3. Severe comorbidities, such as cancer, heart failure, and end-stage chronic diseases
- 4. Cognitive impairment
- 5. Mental illness

#### Date of first enrolment

12/01/2023

#### Date of final enrolment

01/04/2023

# Locations

#### Countries of recruitment

Pakistan

# Study participating centre Government College University Faisalabad

Kotwali Road Faisalabad Pakistan 38000

# Sponsor information

# Organisation

Fine Treatment (United Kingdom)

# Sponsor details

13 Station Road Borough Green Sevenoaks, Kent England United Kingdom TN15 8ES +447958878300 info@finetreatment.com

# Sponsor type

Industry

#### Website

https://finetreatment.com

#### **ROR**

https://ror.org/057484769

# Funder(s)

# Funder type

Industry

#### **Funder Name**

Fine Treatment (United Kingdom)

# **Results and Publications**

#### Publication and dissemination plan

- 1. Planned publication in a high-impact peer-reviewed journal
- 2. Presentations at medical conferences

Further information available at https://www.FineTreatment.com

## Intention to publish date

01/05/2024

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Dr Simon Allen, Director, Fine Treatment, info@finetreatment.com.

- The type of data that will be shared: Individual participant data that underlie the results reported in this article, after deidentification (text, tables, figures, and appendices).
- Dates of availability: Beginning 9 months and ending 3 years following article publication.
- Whether consent from participants was required and obtained: Informed Consent will be obtained from all participants by signing the Informed Consent form before any trial specific procedures are performed.
- Comments on data anonymization: Data will be anonymised.
- Any ethical or legal restrictions: Data will be provided upon request for research purposes only.
- Any additional comments: Data will be made available to researchers who provide a methodologically sound proposal.

## IPD sharing plan summary

Available on request

# **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version 1.0	01/06/2022	05/01/2023	No	No
Statistical Analysis Plan	version 1.0	01/06/2022	05/01/2023	No	No