INSTITUTE: National Cancer Institute

STUDY NUMBER: 11-C-0158 PRINCIPAL INVESTIGATOR: Peter Pinto, M.D.

STUDY TITLE: MR Image Guided Focal Therapy in Prostate Cancer

Continuing Review Approved by the IRB on 11/21/16
Amendment Approved by the IRB on 03/13/15 (F) Date Posted to Web: 12/09/16
Standard

INTRODUCTION

We invite you to take part in a research study at the National Institutes of Health (NIH).

First, we want you to know that:

Taking part in NIH research is entirely voluntary**.**

You may choose not to take part, or you may withdraw from the study at any time. In either case, you will not lose any benefits to which you are otherwise entitled. However, to receive care at the NIH, you must be taking part in a study or be under evaluation for study participation.

You may receive no benefit from taking part. The research may give us knowledge that may help people in the future.

Second, some people have personal, religious or ethical beliefs that may limit the kinds of medical or research treatments they would want to receive (such as blood transfusions). If you have such beliefs, please discuss them with your NIH doctors or research team before you agree to the study.

Now we will describe this research study. Before you decide to take part, please take as much time as you need to ask any questions and discuss this study with anyone at NIH, or with family, friends or your personal physician or other health professional.

BACKGROUND INFORMATION

What is a Research Study?

A research study is a carefully supervised study that is done in humans to answer specific questions about a medicine or a procedure. Research studies are used to test whether a study drug (medicine) or procedure is safe and effective in humans.

Why is this study being done?

This study is being done to test the safety and feasibility of treating prostate tumors with laser heated therapy guided by an imaging technique, magnetic resonance imaging (MRI) and an endorectal probe placed in the rectum. These images will allow the doctors see the prostate tumor and accurately target them for laser treatment. The laser treatment, called 'laser-induced interstitial thermal therapy' or LITT is a novel way to direct extreme heat to a small area of tissue where the tumor is located, to destroy the tumor tissue without damaging nearby normal organs or tissue.

This procedure is being tested because it has not been used for treating many people with prostate cancer, so we do not yet know all the effects (good and bad) of using this system, or whether it can destroy tumor cells permanently. This system has been accepted by the US Food and Drug Administration (FDA) for this use.

Why are you being asked to take part in this study?

You are being asked to take part in this study because you have been diagnosed with biopsy-proven prostate cancer that can be seen with an MRI, and has not spread to other parts of your body.

How many people will take part in this Study?

Up to 15 people will be enrolled to undergo the MRI guided laser therapy on this study.

Description of Research Study

What will happen if you take part in this research study?

Before you begin the study

You will undergo some standard tests to make sure you are eligible to participate in this study, including a physical exam, laboratory tests, a standard MRI and a metastatic work up if indicated by your condition, to make sure your cancer has not spread. These tests are part of standard cancer care and may be done even if you are not participating in this study. You will also undergo a standard 12 core biopsy of the prostate. This means that the biopsy will include needle samples from 12 locations in the prostate. The selection of these locations will be guided by MR imaging and ultrasound, which is obtained through the coil in your rectum.

During the study

If you are eligible to participate, we will schedule you for the MRI guided laser therapy.

First we will ask you to complete two questionnaires about the effects of your cancer on your health and well-being. You may need to have a scan or MRI repeated, depending on when the eligibility scan was done.

You will be admitted to the Clinical Center Hospital and taken to the MRI unit. You will be given general anesthesia after which a cooling catheter (plastic tube) will be put in your bladder. The MRI is used to help your doctor guide the laser applicator (similar to a biopsy needle) directly to your tumor. The doctor will be using the MRI while he/she applies the energy from the laser, to control how much energy is delivered and how much tissue is destroyed. This allows the doctor to protect the organs next to your tumor, such as the urethra or nerves. The entire procedure usually takes from 1.5 to 3 hours.

After the doctor delivers the laser treatment, the cooling catheter will be removed and 'Foley-type' catheter will be put in your urethra to keep your bladder emptied. This catheter will be left in your bladder for 1 to 7 days. The doctor will also give you medicines to prevent any bladder spasms. You will also be asked to take an antibiotic before the treatment, which may be continued the day after the treatment. The day after the procedure, you will have a physical exam and blood tests, including an evaluation of your PSA level.

You will be discharged from the hospital, after 1-2 days, when you are feeling up to it, and be asked to return to have your catheter removed (if not removed before you leave the hospital). You will be given an antibiotic to take the day before, day of and the day after the catheter is removed.

When you are finished undergoing the treatment procedure

We will watch you closely after the procedure and ask you to return to the NCI Clinic 3, 6, 12, 18, 24, and 36 months after the procedure. At each visit you will have a physical exam and laboratory tests, including your PSA level. In addition, we will ask you to fill out the two questionnaires you completed before your procedure again, so we can see the effects of the procedure on your health and well-being. You will also undergo an MRI (6, 12, 24, and 36 months) or other scans if needed, and a prostate biopsy to see if there is any tumor every 12 months for the first two years; the biopsy at the third year visit is optional.

Study Chart

The chart below gives a summary of events for your participation in this study.

Day	**What to do and what will happen to you**
Before the MRI guided laser therapy	Provide a history of how you feel and undergo a physical examination by the research team's Health Care Provider in Urology (OP3) Clinic Get routine blood tests, including PSA An MRI and a prostate biopsy will be done to evaluate your tumor The research team will ask you to complete 2 questionnaires
Day before the MRI guided laser therapy	Start antibiotics as directed
Day of the MRI guided laser therapy	You will be taken to special MRI operating room and be given general anesthesia The surgeon will use the MRI to guide the placement of the laser device and the tumor will be heated with laser thermal energy After completing the procedure, a catheter will be left in your bladder You will recover in the recovery room and then taken to the Surgery Unit where the nurses and doctors will watch you closely for any ill-effects, such as bleeding, infection. You will be given medicine to make you comfortable and an antibiotic to prevent infection.
1st day after the MRI guided laser therapy	Physical examination, including a digital rectal exam. Get routine blood tests, including PSA An MRI with an endorectal coil will be done You will most likely be allowed to go home about 24 hours later.
Between 1-7 days after the procedure	You will be given an appointment to return to NIH to have the bladder catheter removed. You will be asked to take an antibiotic the day before, the day of and the day after the catheter removal.
Follow up visits: 3, 6,12, 18 and 24 months, then annually thereafter for 3 years (total)	NIH visit Have a history taken of how you feel, physical examination by a Health Care Provider in the Urology (OP3) Clinic Blood drawn for routine lab tests Complete the 2 questionnaires MRI and prostate biopsy to test for disease at selected visits as described above.

Risks or Discomforts of Participation

What side effects or risks can I expect from being in this study?

MRI guided laser therapy:

This procedure has been used to treat other types of tumors, including tumors of the brain, liver, bone and thyroid. There has not been a lot of experience using this exact procedure to treat tumors in the prostate so there are risks that we cannot predict. The risks listed below are primarily possible risks as they have not been seen in studies using this procedure in humans.

As with any invasive procedure potential risks include bleeding, infection, and pain. In addition due to the use of the catheter there is the risk of urinary tract problems, including irritation during voiding or a feeling of urgency and frequency, blood in the urine, difficulty urinating. The use of thermal laser may damage tissue or organs next to the tumor, such as possible damage to the rectal wall, bladder wall, or causing erectile dysfunction or blood in the sperm. Putting in the laser apparatus (Visualase applicator) will be done under sterile conditions to reduce the chance of infection and you will receive antibiotics according to the American Urologic Association recommendations.

No serious side effects or complications have been observed in any patients treated to-date with thermal ablation using this system.

MRI:

Because MRI uses low-energy, non-ionizing radio waves, there are no known risk or side effects. The safety of gadolinum contrast used in the MRI has also been shown to be safe in people with normal kidney function. The major side effect of MRI is the length of time required to remain lying still may become uncomfortable.

General anesthesia:

Serious side effects of general anesthesia are uncommon in healthy individuals. Possible side effects include aspiration (object or liquid goes into the lungs) because the cough reflex is suppressed with anesthesia. You will be told not to eat or drink anything after the evening before your procedure. Other rare risks include heart attack, stroke, allergic reaction to the anesthetics, or even death. The anesthesiologist will review all the risks of general anesthesia before you undergo this procedure.

Potential Benefits of Participation

Are there benefits to taking part in this study?

The aim of this study is to see if this experimental procedure is safe and if it will eliminate your prostate tumor. We hope that you will get personal medical benefit from taking part in this study, but we cannot be certain. These potential benefits could include shrinking of your tumor or lessening of your symptoms, such as pain, that are caused by the cancer. Because there is not

much information about the procedure's effect on your type of cancer, we do not know if you will benefit from taking part in this study, although the knowledge gained from this study may help others in the future who have cancer.

Alternative Approaches or Treatments

What other choices do I have if I do not take part in this study?

Instead of being in this study, you have these options**:**

- Getting treatment or care for your cancer without being in a study; this may include observation to see if your tumors get larger over time (called active surveillance), or it may include treatment of the entire prostate gland, with surgery or radiation therapy.
- Taking part in another study

Please talk to your doctor about these and other options.

Research Subject's Rights

What are the costs of taking part in this study?

If you choose to take part in the study, the following will apply, in keeping with the NIH policy:

- You will receive study treatment at no charge to you. This may include surgery, medicines, laboratory testing, x-rays or scans done at the Clinical Center, National Institutes of Health (NIH), or arranged for you by the research team to be done outside the Clinical Center, NIH if the study related treatment is not available at the NIH.
- There are limited funds available to cover the cost of some tests and procedures performed outside the Clinical Center, NIH. You may have to pay for these costs even if they are not covered by your insurance company.
- Medicines that are not part of the study treatment will not be provided or paid for by the Clinical Center, NIH.
- Once you have completed taking part in the study, medical care will no longer be provided by the Clinical Center, NIH.

Stopping Participation

Your doctor may decide to stop your therapy for the following reasons:
- if he/she believes that it is in your best interest
- if your disease comes back or spreads after the procedure
- if new information shows that another treatment would be better for you
- you have completed the study requirements

In each case, you will be informed of the reason therapy is being stopped.

You can stop taking part in the study at any time. However, if you decide to stop taking part in the study, we would like you to talk to the study doctor and your regular doctor first.

Conflict of Interest

The National Institutes of Health (NIH) reviews NIH staff researchers at least yearly for conflicts of interest. This process is detailed in a Protocol Review Guide. You may ask your research team for a copy of the Protocol Review Guide or for more information. Members of the research team who do not work for NIH are expected to follow these guidelines but they do not need to report their personal finances to the NIH.

Members of the research team working on this study may have up to $15,000 of stock in the companies that make products used in this study. This is allowed under federal rules and is not a conflict of interest.

Optional Biopsy at 36 months

The biopsy to be performed is exclusively for research purposes and will not benefit you. It might help other people in the future. You will be asked to sign a separate consent at the time of the biopsy procedure. The decision to participate in this part of the research is optional, and no matter what you decide to do, it will not affect your care.

OTHER PERTINENT INFORMATION

1. Confidentiality. When results of an NIH research study are reported in medical journals or at scientific meetings, the people who take part are not named and identified. In most cases, the NIH will not release any information about your research involvement without your written permission. However, if you sign a release of information form, for example, for an insurance company, the NIH will give the insurance company information from your medical record. This information might affect (either favorably or unfavorably) the willingness of the insurance company to sell you insurance.

The Federal Privacy Act protects the confidentiality of your NIH medical records. However, you should know that the Act allows release of some information from your medical record without your permission, for example, if it is required by the Food and Drug Administration (FDA), members of Congress, law enforcement officials, or authorized hospital accreditation organizations.

2. Policy Regarding Research-Related Injuries. The Clinical Center will provide short-term medical care for any injury resulting from your participation in research here. In general, no long-term medical care or financial compensation for research-related injuries will be provided by the National Institutes of Health, the Clinical Center, or the Federal Government. However, you have the right to pursue legal remedy if you believe that your injury justifies such action.

3. Payments. The amount of payment to research volunteers is guided by the National Institutes of Health policies. In general, patients are not paid for taking part in research studies at the National Institutes of Health. Reimbursement of travel and subsistence will be offered consistent with NIH guidelines.

4. Problems or Questions. If you have any problems or questions about this study, or about your rights as a research participant, or about any research-related injury, contact the Principal Investigator, Peter Pinto M.D., Building 10, Room 2-5952, Telephone: 240-760-6249 You may also call the Clinical Center Patient Representative at (301) 496-2626.

5. Consent Document. Please keep a copy of this document in case you want to read it again.

COMPLETE APPROPRIATE ITEM(S) BELOW:

A. Adult Patient's Consent

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby consent to take part in this study.

Signature of Adult Patient/ Legal Representative _____ Date _____

Print Name _____

B. Parent's Permission for Minor Patient.

I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby give permission for my child to take part in this study.
(Attach NIH 2514-2, Minor's Assent, if applicable.)

Signature of Parent(s)/ Guardian _____ Date _____

Print Name _____

C. Child's Verbal Assent (If Applicable)

The information in the above consent was described to my child and my child agrees to participate in the study.

Signature of Parent(s)/Guardian _____ Date _____ Print Name _____

THIS CONSENT DOCUMENT HAS BEEN APPROVED FOR USE FROM NOVEMBER 21, 2016 THROUGH NOVEMBER 20, 2017.

Signature of Investigator _____ Date _____

Print Name _____

Signature of Witness _____ Date _____

Print Name _____