Whiston Hospital
Warrington Road,
Prescot, Merseyside, L35 5DR
Telephone: 0151 426 1600

St Helens Hospital
Marshall Cross Road,
St Helens, Merseyside, WA9 3DA
Telephone: 01744 26633

/sthknhs @sthk.nhs

www.sthk.nhs.uk

NHS
St Helens and Knowsley Teaching Hospitals
NHS Trust

Prostate Artery Embolisation

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Author: IR Consultant
Department: Radiology
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Introduction

This leaflet about Prostate Artery Embolisation (PAE) explains what this procedure is about and potential risks. It is not meant to replace a comprehensive and thorough discussion with your doctor.

This procedure has been suggested by your urologist as they feel it may be a good idea for you, but you must decide whether to consent to it or not.

You will have the opportunity to discuss the procedure in detail and be certain that you wish to proceed.

If, after full discussion with your doctors, you do not want PAE, then you must decide against it.

You are free to choose other options. For these you will be referred back to the urologist.

Prostate artery embolization

PAE was first undertaken in 2009 and is a non-surgical way of treating an enlarged prostate gland.

It involves blocking the arteries that feed the gland.

It is performed by an Interventional Radiologist, rather than a surgeon, and is an alternative to a Trans-Urethral Resection of Prostate (TURP) or other prostate treatments.

A TURP is an operation performed through the penis using a special telescope to remove the prostate gland.

Notes

We will ask you to fill in questionnaires and to assess the results of your treatment.

The decision to proceed with this treatment is at the discretion of the patient after consultation.

Why might I need prostate artery embolisation?

This is undertaken as you have an enlarged prostate.

You would have been reviewed by your GP and urologists and various treatment options would have been discussed on how to manage this.

Initial treatment is with medication and then moves on to surgery, if necessary.

PAE is considered as an alternative to surgery. This is being considered in your case.

Who will be doing the prostate artery embolisation (PAE)?

PAE is performed by Interventional Radiologists, who have the expertise in placing tubes into blood vessels through the skin under the guidance of x-rays.

Where will the procedure take place?

The procedure will take place in the x-ray department, in a special room called interventional theatre, which is modified for Interventional Radiology procedures to be undertaken.

How do I prepare for prostate artery embolisation?

The procedure will be undertaken as a day case, which means you can go home at the end of the day. If however, you live alone or have other medical issues, then we will arrange an overnight stay in the hospital. This will be discussed with you during the consultation.

You will be required not to eat or drink anything for 4 hours before the procedure. This is because we may give you a sedative to relieve your anxiety.

As the procedure is generally carried out through the artery in the groin, you may be asked to shave the skin around this area on each side.

If you have any allergies or had a reaction to intravenous contrast (the dye used in CT scans), you must tell your doctor about this.

What actually happens during prostate artery embolisation?

Before you are taken into the x-ray room, you will have a needle put into the vein in your arm. This will enable you to receive antibiotics through your vein and also have sedatives and painkillers, if required. In the room, you will lie on the x-ray table, and will have monitoring devices attached, and if needed, extra oxygen will be given.

The Interventional Radiologist will wear an operating theatre gown and gloves and will keep everything as sterile as possible.

The skin in one groin will be cleaned with antiseptic solution, and then most of the rest of your body covered with sterile sheets.

With the help of an ultrasound, the skin over the artery in the groin will be anaesthetised with local anaesthetic, and then a needle will be inserted into the artery.

What is the advantage of prostate artery embolisation over traditional techniques?

PAE has lower complication rates when compared to TURP, particularly lower rates of blood mixed with urine (haematuria) and ejaculatory dysfunction.

PAE will only be offered if your symptoms are severe enough to warrant an operation.

The clinical results will be closely monitored and if there is no improvement in the symptoms, you will be offered other treatments including conventional surgery.

Schedule

You will be seen in both Urology and Interventional Radiology clinics, to discuss details and will be asked to sign your consent form.

You will have a CT scan to see whether you are suitable for the procedure. With the help of the scan we can assess the size of the prostate, nature of the blood vessels supplying the prostate. This will help us to decide whether you are suitable and prevents un-necessary treatment delays for yourself.

You will be assessed by clinical teams to ensure that any existing medical conditions are identified and appropriately managed prior to the procedure.

On the day of the procedure, you will be admitted either to the Day Unit/Ward or the general ward.

After the PAE, we would need you to attend follow up clinics at 8 weeks and 6 months after the procedure to assess the outcome. In addition, you may need an MRI scan of the prostate prior to the 6 months clinic review. You will be notified of this, should you require it. We will of course also see you at other times if necessary.

What are the results of prostate artery embolisation?

Various studies have been undertaken to assess the outcomes after a PAE.

Over 70% of men will show an improvement in their symptoms.

However, we may not be able to block the vessels in around 10% of the cases as the vessels are either too small or tortuous (technical failures).

Are there any risks or complications?

Prostate artery embolisation is a fairly new procedure.

Based on the current evidence, it is safe, but some risks and complications can occur, as with any medical treatment.

You may get an occasional bruise in the groin, which can be lump like (called a haematoma), where the needle has been inserted into the groin.

Most will experience some pain in the pelvis where the prostate sits, but rarely is this pain severe.

About one patient in ten cannot pass urine afterwards and will require a urinary catheter for a period of time.

As we are using small particles to block the vessels, it can result in blockage to other arteries causing damage to other structures like rectum (back passage), penis and urinary bladder. This is very rare and has been reported in large studies undertaken in other countries.

These will be discussed in detail during the consent process.

A guidewire is then placed in to the artery via the needle. Then the needle is withdrawn and a plastic tube, called a sheath, will be placed over the wire into this artery.

The Interventional Radiologist will then use the x-ray equipment to move various catheters (plastic tubes) and wires into the arteries supplying the prostate. To check that the catheter (plastic tube) is in the correct position, the x-ray tube will rotate around you and the images will be studied to ensure that no abnormal arteries or connections are present. The selected arteries to the prostate gland are then blocked with tiny plastic beads.

At the end of the procedure, the catheter and sheath is removed and the Interventional Radiologist will place a device called a closure device to close the hole made in the artery in the groin.

Occasionally, the interventional radiologist may press firmly on the skin entry point in the groin for several minutes to stop any bleeding.

Will it hurt?

When the local anaesthetic is injected at the start of the procedure, you will feel a sting followed by a burning sensation which lasts a few seconds and then it will feel numb.

The procedure itself may become painful, but this is uncommon.

A nurse will be monitoring you and should it become painful, then we can give painkillers through the needle placed into your arm.

Sometimes, when the dye passes through your body, you may get the feeling of warmth which some people find unpleasant but not painful. However, this is short lived and passes soon.

How long will it take?

As every patient is unique and different, it is difficult to predict whether the procedure will be straight forward or complex.

Whilst some procedures will be completed in an hour; complex cases can take approximately 2 – 3 hours. As a rough guide, please expect to be in the x-ray room for about 3 hours.

Who will you see?

A specially trained team led by an Interventional Radiologist within the Radiology Department.

Interventional radiologists have special expertise in reading the images and using imaging to guide catheters and wires to aid diagnosis and treatment.

As the test is performed in a theatre all staff will be dressed in theatre scrubs. All staff members will introduce themselves prior the procedure.

What happens afterwards?

You will be transferred to the recovery room from the x-ray room on a trolley, where a nurse will monitor your pulse, blood pressure and other observations.

They will regularly look at the skin entry point in the groin to make sure there is no bleeding.

After a period of observation you will be transferred to the ward, if you are being admitted.

You will need to lie in bed for a few hours, until you have recovered. If the case is being done as a day case, then you will be discharged in 4 - 6 hours. Once you are home, you should rest for a few days.

You will be prescribed some medications to take home with you.

These could include painkillers, antibiotics and steroids.

An explanation on when to use them will be given prior to discharge.

What else may happen after this procedure?

Some patients may feel very tired after the procedure and others may feel fit enough to return to normal activities.

We however, advise people to take at least 5 days off work after the procedure.

Please turn over….