Prostate Artery Embolisation

Aintree University Hospital
NHS Foundation Trust

Interventional Radiology Theatres
University Hospital Aintree
Lower Lane
Liverpool L9 7AL
Tel:0151-5292368

Introduction

This leaflet about Prostate Artery Embolisation (PAE) explains what is involved and the possible risks. It is not meant to replace a thorough discussion with your doctor.

PAE has been suggested by your doctors as they feel it may be a good idea for you, but you must decide whether to consent to it.

You will have the opportunity to discuss PAE and be certain that you want the procedure to go ahead.

If, after full discussion with your doctors, you do not want PAE, then you must decide against it. You are free to choose conventional surgery.

If you are having PAE as part of a study you will be given further details of the study.

Prostate artery embolisation

PAE was first performed in 2009 and is a non-surgical way of treating an enlarged prostate gland by blocking the arteries that feed the gland. This makes it shrink.

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 surgery.

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

Why might I need prostate artery embolisation?

If you have an enlarged prostate, and this is causing you symptoms you should have been advised by your GP and Urologist about all the ways of dealing with this.

Treatment usually starts with medication and then moves on to surgery if necessary. In your case, it has been decided that PAE is an alternative to surgery.

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

PAE is performed by specially trained doctors called Interventional Radiologists. They have special expertise in correctly placing tubes into blood vessels through the skin and using X-ray equipment to monitor this.

Where will the procedure take place?

The procedure will take place in the X-ray department, in a special room adapted for Interventional Radiology procedures. It is often referred to as Interventional Theatre.

How do I prepare for prostate artery embolisation?

You will be admitted to the hospital as a “day case” for the procedure. If you cannot get here easily or you live alone we will arrange an overnight stay.

You will be asked not to eat for four hours beforehand as you may receive a sedative to relieve 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, you must tell your doctor. If you have previously reacted to intravenous contrast medium (the dye used for kidney x-rays and CT scans), you must also tell your doctor about this.

What actually happens during prostate artery embolisation?

Before you are taken into the x-ray room, you will need to have a needle put into a vein in your arm, so that the Interventional Radiologist can give you a sedative and painkillers if required. You will be given an antibiotic to take.

In the room, you will lie on the x-ray table, generally flat on your back. You will have monitoring devices attached, and may be given extra oxygen.

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

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

The skin over the artery in the groin will be anaesthetised with local anaesthetic, and then a needle will be inserted into this artery.

Once the Interventional Radiologist is satisfied that this is correctly positioned, a guidewire is placed through the needle and into this artery.

Then the needle is withdrawn allowing a fine, plastic tube, called a catheter, to be placed over the wire and into this artery.

The Interventional Radiologist will then use the x-ray equipment to move the catheter and wire into the arteries feeding the prostate.

The Interventional Radiologist may then perform a special x-ray where the x-ray tube rotates around you and the images are then processed to make sure no abnormal arteries or connections are present. The selected arteries to the prostate gland are blocked by tiny plastic beads.

At the end of the procedure, the catheter is removed and the Interventional Radiologist or nurse will press firmly on the skin entry point in the groin for several minutes to prevent any bleeding.

Will it hurt?

When the local anaesthetic is injected at the beginning of the procedure, it will sting for a few seconds and then feel numb.

The procedure itself may become painful, but this is not very common. There will be a nurse looking after you throughout. If the procedure becomes painful, they will be able to give you painkillers through the needle in your arm.

As the dye passes around your body, you may get a warm feeling which some people can find a little unpleasant but not painful. However, this soon passes and should not concern you.

How long will it take?

Every patient is different, and it is not easy to predict how complex or how straightforward the procedure will be.

Some procedures can be finished in an hour; others may be more difficult and take longer: up to 2-3 hours.

As a guide, expect to be in the x-ray department for about 3 hours.

What happens afterwards?

You will be taken from the x-ray room into the recovery area on a trolley. The nurse in the recovery area will check your pulse, blood pressure and other observations. They will also look at the skin entry point in the groin to make sure there is no bleeding from it. Once any pain is controlled, you will be transferred to the ward.

You will generally stay in bed for a few hours, until you have recovered. If you are suitable for a day case procedure, you will usually be allowed home after 4-6 hours.

If not, you will be kept in hospital overnight. Once you are home, you should rest for three or four days.

You will be prescribed painkillers if required and other drugs, including antibiotics and an explanation of their usage will be given prior to discharge.

What else may happen after this procedure?

Some patients may feel very tired for up to a week following the procedure, though some people feel fit enough to return to work sooner; we advise patients to take at least one week off work following PAE.

What are the results of prostate artery embolisation?

There are some studies of the results of prostate artery embolisation. Over 70%of men will have improved symptoms after PAE (better urinary flow). Difficulty in finding tortuous or small prostate arteries may lead to technical failures in around 10% of cases.

Are there any risks or complications?

Prostate artery embolisation is a fairly new procedure. From what we know now, it appears to be safe, but there are some risks and complications that can arise, as with any medical treatment.

There may occasionally be a small bruise, called a haematoma, around the site where the needle has been inserted.

Most patients feel some pain afterwards; this is usually mild. About one patient in ten cannot pass urine afterwards and needs a urinary catheter.
PAE involves blocking the blood vessels leading to the prostate gland with small beads. If this results in blockage to other arteries it can cause damage to the bladder and rectum. This has happened very rarely in some large studies in other countries. These risks appear small and will be discussed at the time of your consent for treatment.

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

PAE has lower complication rates when compared to TURP. There are 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.

We will closely monitor the clinical results in terms of your improvement in symptoms and if this treatment is unsuccessful, you will be offered conventional surgery.

Schedule

You will be seen in both Urology and Interventional Radiology clinics. You will have a chance to discuss details of the procedure and will be asked to sign your consent form.

You will have a CT scan to see if it is possible to perform the procedure. Sometimes, patients have blood vessels that are too narrow to pass the plastic tube into the prostate arteries. This results in the procedure failing. To avoid trying PAE unnecessarily, it is important to assess the size of the blood arteries to the prostate.

You will be assessed by Surgical or Interventional Radiological staff to ensure that any co-existing medical conditions are identified and addressed prior to your procedure.

On the day of the procedure, you will be admitted to a Day Surgical Ward or an overnight stay ward.

If you have PAE, we would need you to attend follow up clinics at 6 weeks and 6 months after the procedure to assess the outcome. In addition, you will have an MRI scan of the prostate prior to the 6 months

clinic review. We will of course also see you at other times if necessary.

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

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

If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

Tel No: 0151 529 2906

Email: interpretationandtranslation @aintree.nhs.uk