

## Radiology

# Prostate artery embolisation (PAE)

You have been referred to an interventional radiologist for a prostate artery embolisation (PAE).

You may be experiencing lower urinary tract symptoms such as:

- passing urine (pee) very frequently
- passing urine, a lot at night
- passing only small volumes of urine
- having a poor flow or stream of urine

These symptoms are often because of an enlarged prostate gland. The prostate is found in your pelvis at the bottom of the bladder.

These symptoms are increasingly common in men as they get older, as the prostate gets larger over time. The symptoms this causes can be troublesome.

Prostate enlargement is usually benign (non-cancerous). Your interventional radiologist or urologist will discuss this with you.



### **What is prostate artery embolisation?**

During a prostate artery embolisation, small beads (particles) are injected directly into the arteries supplying your enlarged prostate gland.

The beads reduce or block off the blood supply to your prostate. This can make your prostate smaller and improve your urine flow, which should improve your symptoms and quality of life.

### **Who prostate artery embolisation is for**

Prostate artery embolisation is suitable for people aged between 50 and 75 that have:

- moderate or severe lower urinary tract symptoms
- particularly large prostate glands
- poor urinary flow rate
- tried drug treatment with little or no improvement.

Not everyone with an enlarged prostate can have prostate artery embolisation. People who have bladder stones, poor kidney function, heavy arterial disease, certain neurological conditions, or confirmed prostate cancer are not suitable for prostate artery embolisation.

### **Other treatment options**

Other treatment options include surgery - transurethral resection of the prostate (TURP). Your urologist will have discussed this with you.

### **Benefits of prostate artery embolisation**

Prostate artery embolisation could make your prostate smaller and improve your urine flow. This should improve your symptoms and quality of life. This means you may no longer need to take medicines to control your symptoms.

The complication rate and side effect profile of prostate artery embolisation is lower than with surgical techniques.

## Patient Information

Some patients however are better advised to have TURP or other surgical treatments. This will be discussed with you at your clinic appointment to help you come to appropriate treatment decisions.

### **Drawbacks to prostate artery embolisation**

The procedure has a relatively low complication rate and few side effects. But it is a very technical procedure.

Benign prostatic enlargement is not really 'cured' completely by prostate artery embolisation. But your symptoms can usually be improved to more acceptable levels.

In a minority of cases, the treatment can be repeated if needed. If prostate artery embolisation does not work for you, surgical treatment is available and possible in the future.

### **Risks of prostate artery embolisation**

#### **Prostatitis**

The most common side effect of this treatment is mild pain in the pelvis. This is because of a swollen prostate gland, known as prostatitis, which is caused by the embolisation. This affects up to 20% of patients. Painkillers such as paracetamol and ibuprofen taken for a few hours after treatment are usually enough to help reduce this pain.

Some patients experience blood in their urine which usually disappears after a day or two. Prostatitis can make your urinary symptoms worse for a day or two before they then begin to improve.

In rare cases, prostatitis can push some patients with an enlarged gland into urinary retention. This is where it is not possible to pass urine. If this happens, you may need a urinary catheter placed into the bladder to allow urine to drain out until the prostate swelling reduces.

A bruise in your leg at the access site is not uncommon for a week or two after the procedure.

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You may experience symptoms like flu, feeling a bit washed out and tired after the treatment. This is called post-embolisation syndrome. This happens as your body learns to cope with the reduced blood flow to the prostate.

Regular doses of paracetamol can help to reduce these symptoms. If you are worried about your symptoms, you can contact the team at UHCW using the phone numbers at the end of this leaflet.

### **Uncommon/rare risks**

There is a small risk of bleeding from the needle site in your groin. This is usually controlled with direct pressure on the spot for a few minutes. Very rarely, the bleeding is more serious and other treatment is needed.

There is a very small risk of damage to other arteries in your body by movement of the tube (catheter) inside them.

As the procedure uses X-ray dye (contrast medium) in the arteries, there is a very small risk of making your kidney function worse or having a contrast reaction. Patients with kidney problems are not put forward for prostate artery embolisation.

There is a very small risk of infection at the needle site. Infection in the bladder, urine, or prostate itself is rare but possible. All these can be treated with antibiotics.

Ejaculatory problems or erectile dysfunction are possible but rare following prostate artery embolisation. The risk of this from prostate artery embolisation is rarer compared to surgical treatment (TURP).

The incidence of serious injury to the bladder, bowel or penis needing invasive treatment is extremely rare. The incidence of long-term damage is also extremely rare. There is no definitive published risk, but in practical terms, it can be less than 1 in 1000 cases.

## Patient Information

### **Non-target embolisation**

The most serious risks from prostate artery embolisation are because of non-target embolisation. This accounts for less than 3 in 1000 cases.

In non-target embolisation, particles pass into an unintended location. This causes poor blood flow to tissues other than the prostate, often because of a connecting artery between locations. The sites most possibly affected by non-target embolisation are the bladder, bowel, and penis.

If non-target embolisation happens, it usually means you'll see blood in your urine or bowel motions. It can also affect the tip of the penis with small ulcers. These effects usually resolve.

### **If you agree to prostate artery embolisation**

You'll be given a date to come into hospital to discuss the procedure. in Interventional Radiology clinic.

If you wish to proceed, we'll ask you to give your consent to go ahead with the procedure. You'll need to sign a form to do this. You can withdraw your consent at any time.

We'll then need to do safety checks, including:

- routine blood tests
- A CT scan - this acts as a 'map' of your arteries and helps to guide the procedure.
- A MRI scan of the prostate gland - we compare this to another MRI scan you have 3 months after the procedure. This helps us to assess how much difference the treatment has made.

## Patient Information

### **How long you'll stay in hospital.**

You'll need to have this treatment at UHCW, your local specialist centre.

You'll need to remain in bed for a few hours immediately after the procedure. This will help the needle site in your groin to heal.

The amount of time spent in hospital is different for each patient. Most patients can be treated as a day case. Occasionally, people stay in for one night, and rarely they may stay for longer if there are any clinical concerns.

### **During the procedure**

An interventional radiologist, who is a specialist in X-ray techniques, will perform the procedure. The procedure usually takes over an hour. It can sometimes take longer in difficult cases.

You'll have a local anaesthetic injection into your groin. This makes the area where the needle is placed in the groin feel numb. Most people tolerate the procedure very well without the need for strong pain killers, anti-nausea medicines or sedation.

The interventional radiologist makes a very small hole in your groin after area has been numbed. From here, tubes and wires are passed into the arteries going into the pelvis to identify which arteries are supplying the prostate. You should not feel these inside you.

You'll have had a CT scan before the procedure to help the doctor identify the small arteries to target. We may repeat a limited CT scan during the procedure as a crosscheck.

If it is safe and possible to do so, the interventional radiologist will then inject a small volume of tiny beads into the target prostate arteries.

The beads will reduce the blood supply to the prostate. This should allow prostate to shrink in time, as it won't be receiving as much blood. Your symptoms should improve as the prostate shrinks.

## Patient Information

### **When you go home**

You should feel well when you go home. If you still have some discomfort from your treatment, continue to take simple painkillers such as paracetamol.

After 4 to 6 weeks, we'll see you again in the Interventional Radiology clinic. If you're not given this appointment before going home, please ring your interventional radiologist's secretary.

We will also arrange a follow-up MRI scan.

When we see you in clinic, we will discuss your progress and monitor your symptoms using symptom questionnaires. These will help us assess whether the treatment has been successful.

### **More information**

If you have any questions, please ask at your IR clinic appointment. Or you can contact one of the medical secretaries on the contact details below.

### **Contact details.**

#### **Dr J. Harding**

Consultant Interventional Radiologist

Secretary: 024 7696 7082

#### **Dr M. Dhillon**

Consultant Interventional Radiologist

Secretary: 024 7696 7082

#### **Mr I. Wharton**

Consultant Urologist

Secretary: 024 7696 5258

## Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact the telephone number on your appointment letter and we will do our best to meet your needs.

The Trust operates a smoke-free policy.

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