

This leaflet tells you about having varicocele embolisation. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you or the department which is going to perform it.

### **What is a varicocele embolisation?**

A varicocele is an abnormality of the veins that take blood away from the testis. The valves in the veins do not work properly and so the veins become bigger and more obvious, rather like varicose veins in the leg. Embolisation is an X-ray guided treatment, which blocks the enlarged vein from the testis typically using a spring (a coil) and allows the veins to shrink.

### **Why do you need an embolisation?**

A varicocele can cause discomfort in the scrotum, which is often worse when standing, exercising or cycling. They are sometimes diagnosed during the investigation of infertility and treatment may help your sperm count. There are a number of ways to treat varicoceles including open groin surgery, laparoscopic surgery and minimally invasive interventional radiology. Interventional radiology uses X-rays to guide a small tube to the vein to block it with only a small 3–4 mm incision in the groin. It is performed as a day case procedure.

### **Are there any risks?**

Varicocele embolisation is a very safe procedure, but as with any medical

procedure there are some risks and complications that can arise. There may occasionally be a small bruise called a haematoma around the site where the needle has been inserted into the vein. This will go away in a week or two.

A few patients may experience mild discomfort in the loin or scrotum afterwards which rarely lasts more than a few days.

There is a very small risk of a coil, used to occlude the vein, could migrate to your lungs. If this happens and it cannot be retrieved it is very unlikely to cause any problems other than a cough and mild chest pain for a few days.

Rarely, it may not be possible to obtain a satisfactory position for embolisation, in which case a surgical operation may be offered.

Unfortunately, there is a possibility that the varicocele may come back again. This may also happen after any surgical treatment. If this happens, then the procedure may be repeated, or you may be advised to have an operation.

### **Who has made the decision?**

The consultant in charge of your care, normally a surgeon or infertility expert, and the interventional radiologist performing the procedure have discussed your case and feel that this is the best option. However, you will also have the opportunity for your opinion to be considered and if, after discussion with your doctors, you no longer want the procedure, you can decide against it.

### **Are you required to make any special preparations?**

Varicocele embolisation is usually carried out as a day case procedure under local anaesthetic. You may be asked not to eat for four hours before the procedure, although you may still drink clear fluids such as water.

If you have any allergies or have previously had a reaction to the dye (contrast agent), you *must* tell the radiology staff before you have the test.

### **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.

### **Where will the procedure take place?**

In the angiography suite or theatre; this is usually located within the radiology department. This is similar to an operating theatre into which specialised X-ray equipment has been installed.

### **What happens during embolisation?**

Before the procedure, the interventional radiologist will explain the procedure and ask you to sign a consent form. Please feel free to ask any questions that you may have and, remember that even at this stage, you can decide against going ahead with the procedure if you so wish.

You will be asked to get undressed and put on a hospital gown. A small cannula (thin tube) will be placed into a vein in your arm.

You will lie on the X-ray table, generally flat on your back. A needle will be inserted into a vein in your arm, so that a sedative or painkillers can be given if required. You may have monitoring devices attached to your chest and finger and may be given oxygen.

The procedure is performed under sterile conditions and the interventional radiologist and radiology nurse will wear sterile gowns and gloves. The skin near the point of insertion, usually the groin but occasionally the neck, will be swabbed with antiseptic and you will be covered with sterile drapes.

The skin and deeper tissues over the vein will be numbed with local anaesthetic, and then a fine tube (catheter) will be inserted and guided, using the X-ray equipment, into position down the vein (testicular vein), which takes blood away from the testis. The interventional radiologist will block this vein usually by inserting small metal coils, which look like springs and will remain in the abnormal vein.

The radiologist will inject small amounts of dye (contrast agent) to check the position of the catheter and that the abnormal veins are blocked satisfactorily. Once they are blocked, the catheter will be removed. The interventional radiologist will press firmly on the skin entry point for a few minutes to prevent any bleeding.

### **Will it hurt?**

When the local anaesthetic is injected, it will sting for a short while, but this soon wears off. You may have a small bruise after the procedure. You may feel a warm sensation for a few seconds when the dye is injected

and feel like you are passing urine. After this, the procedure should not be painful.

### **How long will it take?**

Every patient is different, and it is not always easy to predict; however, expect to be in the radiology department for about an hour.

### **What happens afterwards?**

You will be taken back to your ward. Nursing staff will carry out routine observations including pulse and blood pressure and will also check the treatment site.

You will generally stay in bed for a couple of hours and then you will be able to go home. Take it easy for the rest of the day but you can resume normal activities the next day.

### **Finally**

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

### **Contact:**

This leaflet has been prepared by the British Society of Interventional Radiology (BSIR) and the Clinical Radiology Patients' Liaison Group (CRPLG) of The Royal College of Radiologists. Approved by the Board of the Faculty of Clinical Radiology: 25 February 2011

#### **Legal notice**

Please remember that this leaflet is intended as general information only. It is not definitive, and the RCR and the BSIR cannot accept any legal liability arising from its use. We aim to make the information as up to date and accurate as possible, but please be warned that it is always subject to change. Please therefore always check specific advice on the procedure or any concerns you may have with your doctor.



**British Society of Interventional Radiology**

## **Varicocele embolisation**

## **Patient information**

Endorsed by

