Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Undergoing Variococele Embolisation

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Undergoing a Varicocele Embolisation

Patient Information

Interventional Radiology Suite

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Introduction

This leaflet tells you about the procedure known as varicocele (pronounced VARI-CO-SEAL) embolisation. It explains what is involved and what the possible risks are. It is not meant to be a substitute for an informed discussion between you and your doctor but can act as a starting point for such a discussion.

As you are having the varicocele embolisation as a planned procedure, you should have had sufficient explanation before you sign the consent form.

The Radiology Department may also be called the X-Ray or Imaging Department. It is the facility in the hospital where radiological examinations of patients are carried out, using a range of imaging equipment, such as a computed tomography (CT) scanner, an ultrasound machine, or a magnetic resonance (MR) imaging scanner.

Radiologists are doctors specially trained to interpret the images and carry out more complex examinations. They are supported by Radiographers, who are highly trained to carry out X-Rays and other imaging procedures.

What is a varicocele embolisation?

A varicocele is an abnormality of the veins that take blood away from the testicle. The veins become bigger and more obvious, rather like varicose veins in the leg. Varicoceles can cause various problems, including infertility.

Why do I need a varicocele embolisation?

Embolisation is a way of blocking the veins in the testicles, making them less obvious and helping the varicocele to disappear, without the need for an operation. In the past, an open operation would have been necessary to get rid of the varicocele, but now it can be treated by the technique of embolisation.

Who has made the decision?

Your Urologist will have discussed the situation with a Radiologist and considers that this is the best treatment option. However, you will also have the opportunity for your opinion to be considered and if, after discussion with your doctors, you do not want the procedure carried out, you can decide against it.

Who will be performing the varicocele embolisation?

A Radiologist, who specialises in this type of intervention. These Radiologists have special expertise in using X-Ray equipment, and interpreting the images produced. They will look at these images while carrying out the procedure. Radiology Nurses and Radiographers will assist the Radiologist during the procedure.

Where will the procedure take place?

The procedure will take place in the X-Ray Department, in a room adapted for specialised procedures.

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How do I prepare for a varicocele embolisation?

You will be asked to attend a preoperative assessment approximately 1-2 weeks before your embolisation. This is where we can gain more information about you, discuss your medication and answer your questions.

You will be advised to continue taking your normal medication, even on the morning of your admission, that is unless it belongs to one of the groups of medication listed below:

1. Diuretics or "water tablets" - as your embolisation will be scheduled for the morning, it may be better if you leave them till after the procedure.

2. Anticoagulants (Warfarin / Apixaban / Rivaroxaban / Edoxaban).

3. Diabetic medications (Insulin injections or diabetic tablets).

You will be given instructions about the above medications at your preoperative assessment appointment.

On the day of the procedure:

- you will have been asked to fast, usually from 2am on the morning of your admission

- you will be asked to put on a hospital gown

- a small tube called a cannula will be inserted into your arm and a blood sample will be taken

If you have any allergies, you **MUST** let your doctor know. If you have previously reacted to intravenous contrast (the dye used for tests like CT scans), you must also tell your doctor about this.

What actually happens during a varicocele embolisation?

You will lie on the X-Ray table, generally flat on your back. During your procedure, a Radiology Nurse will place stickers on your chest and connect you to an electrocardiogram (ECG) machine (heart monitor). Your blood pressure will be checked every ten minutes, and your pulse and oxygen levels will be continuously monitored throughout the procedure.

The Radiologist will wear a sterile theatre gown and gloves. The procedure is generally carried out using the big vein in the groin. However, on occasion, this procedure is performed via the large vein in your neck (jugular); if this is the case, the Radiologist will discuss this during the consenting process.

The skin near to the point of insertion will be cleaned with antiseptic, and then you will be covered with a large theatre towel. The skin and deeper tissues over the vein will be anaesthetised with local anaesthetic, and then a needle will be inserted into the vein.

Once the Radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle, and into the vein. Then the needle is withdrawn, allowing a fine plastic tube called a catheter to be placed over the wire and into the vein.

The Radiologist uses the X-Ray equipment to make sure that the catheter and the guide wire are moved into the right position. Once the catheter is in the correct position, the Radiologist can block the abnormal veins, usually by passing small metal coils down into the varicocele. These metal coils are like small springs, and they cause the blood around them to clot, and consequently block the vein. Occasionally, the vein is blocked by also injecting a special fluid through the catheter.

The Radiologist will inject small amounts of special dye called contrast down the catheter, to check that the abnormal veins are being blocked satisfactorily. Once they are blocked completely, the catheter will be removed. The Radiologist will then press firmly on the entry point on the skin for several minutes, to stop any bleeding.

Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this soon passes; the skin and deeper tissues should then feel numb. After this, the procedure should not be painful.

You will be awake during the procedure, and you will be able to tell the Radiologist if you feel any pain or become uncomfortable in any other way.

There will be a Radiology Nurse or another member of staff standing next to you and looking after you.

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. Generally, the procedure will be over in about an hour, but you may be in the X-Ray Department for longer.

What happens afterwards?

You will be taken back to your ward, usually the Surgical Assessment Lounge (SAL), on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no untoward effects. They will also look at the skin entry point to make sure there is no bleeding from it.

You will generally stay in bed for 2 hours, until you have recovered. You will be allowed home on the same day. You MUST have someone to escort you home and supervise you overnight.

Are there any risks or complications?

Varicocele embolisation is a safe procedure, but there are some risks and complications that can arise. There may occasionally be a small bruise around the site where the needle has been inserted; this is quite normal. If this becomes a large bruise, then there is the risk of it getting infected, and this would then require treatment with antibiotics. Very rarely, some damage can be caused to the vein by the catheter, and this may need to be treated by surgery or another radiological procedure.

Unfortunately, there is always the possibility that although the varicocele seems to have been cured to start with, it may come back again, months or even years later. If this happens, then the procedure may need repeating, or you may be advised to have an operation.

Despite these possible complications, the procedure is normally very safe and is carried out without any significant side-effects.

Is there any advice after discharge?

- Do not perform any lifting which may lead to straining, particularly any lifting greater than 5kg and avoid strenuous exercise for approximately one week
- Do remain off work for two to three days
- It is advisable to drink plenty fluids, especially water, over the first few days; this will assist with flushing the X-Ray contrast out of your body
- It is advisable to refrain from drinking alcohol for 24 hours
- You may shower but avoid having a bath for four days
- The following day, gently clean the site with soap and water. Dry the area gently. The skin heals in approximately four days. Do not use cream or lotions near the puncture site
- Refrain from driving for at least 36 hours following your Varicocele Embolisation

Safety

X-Rays are a type of radiation. We are all exposed to natural background radiation every day; this comes from the sun, the food we eat, and the ground. Being exposed to X-Rays carries a small risk, but your consultant feels that this risk is outweighed by the benefits of having this procedure. We take all safeguards to minimise the amount of X?Rays you receive.

Information for all patients between the ages of 12 and 55

The risks of radiation are slightly higher for an unborn child, so you will be asked to confirm that you are not pregnant before the examination can proceed.

This applies to all patients whether you are male or female.

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. Do satisfy yourself that you have received enough information about the procedure before you sign the consent form.

Contact

The X-Ray Department can be contacted directly on **(01942) 778713**, or via the hospital switchboard on **(01942) 244000** and ask for the X-Ray Department.

Acknowledgements

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