



Varicocele Embolisation

Varicocele (pronounced vari-co-seal)

Introduction

This patient guide outlines some important information about varicocele embolisation and can assist a discussion between you and your doctor.

Varicocele embolisation is a day case procedure and will be discussed in more detail by the interventional radiologist performing the procedure in clinic before hand.

What is a varicocele embolisation?

A varicocele is an abnormality of the veins that take blood away from the testicles. The veins become bigger and more obvious, rather like varicose veins in the leg. Embolisation is a way of blocking these veins and causing the varicocele to disappear, without an operation. Because the veins are allowing blood to flow the wrong way when they are blocked the testicles will continue to drain blood normally by other routes.

Why do I need a varicocele embolisation?

Varicoceles can cause various problems including discomfort and pain, and may be associated with infertility. In the past, an open operation would have been necessary to get rid of the varicocele, but they can now be treated by an image guided minimally invasive procedure. The procedure is performed from inside the veins after making a tiny nick in the skin.

Who will be performing the varicocele embolisation?

A specially trained doctor called an Interventional Radiologist. Interventional Radiologists have special expertise in using X-ray equipment to steer catheters and wires into the correct vein to block it off.

Where will the procedure take place?

Generally in a room like an operating theatre that has a special x-ray machine called an 'angiography suite' or fluoroscopy room.

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How do I prepare for varicocele embolisation?

The procedure is performed as a day stay, and you can go home after 2 – 4 hours observation. You will be asked not to eat for four hours before hand, though it is all right for you to drink a small amount of clear water. You may receive a sedative to relieve anxiety. You will be asked to put on a hospital gown as the procedure is carried out using the larger veins in the neck or groin. If you have any allergies, you must let your doctor know. If you have previously reacted to intravenous contrast medium, the dye used for CT scanning, then you must also tell your doctor about this.

What actually happens during varicocele embolisation?

You will lie on the X-ray table, generally flat on your back. You need to have a small plastic cannula put into a vein in your arm so that the radiologist can give you sedative or painkillers. You may also have a monitoring device attached to your chest and finger, and may be given oxygen through small tubes in your nose. The radiologist will keep everything as sterile as possible, and wear a theatre gown and operating gloves. The skin around the point of insertion (the neck or groin) will be swabbed with antiseptic, and then the area covered with a theatre towel. The skin and deeper tissues over the vein will be anaesthetised with local anaesthetic that can sting for a few seconds.

A small plastic tube is placed into the vein and through this a smaller plastic tube, called a catheter is placed over a wire and into the testicular vein. The radiologist uses the X-ray equipment to make sure that the catheter and the guide-wire are moved into the right position, into the varicocele, and then the wire is withdrawn. A small amount of special dye, called contrast medium, is injected down the catheter to check the abnormal veins. The radiologist can block the abnormal veins usually by injecting a special fluid or foam down the catheter. The fluid / foam causes the vein to close down, and consequently block the vein. The catheter and foam will be left in place for up to 10min to ensure the veins block completely, and the catheter is removed. The radiologist will press firmly on the skin entry point for several minutes, to prevent any bleeding.

Will it hurt?

When the local anaesthetic is injected, it will sting for a few seconds, and the skin and deeper tissues should then feel numb. Some patients can feel a dull ache in the lower back or testicles, when the vein is stretched but this passes off after a short time. There will be a nurse, or another member of staff, standing next to you and looking after you. If the procedure does become uncomfortable for you, then they will be able to arrange for you to have some painkillers through the cannula in your arm. You will be awake during the procedure and able to tell the radiologist if you become uncomfortable.

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How long will it take?

Every patient's situation is different. Generally, the procedure will be over in about an hour, but you may be in the X-ray department for a couple of hours. In some patients who have different anatomy or only a small varicocele it may not be possible to catheterise the vein coming from the testis. **If this is the case it will not be possible to treat the veins in the scrotum and the procedure will only provide diagnostic information** to consider other forms of treatment (open or micro-surgery).

What happens afterwards?

You will be taken back to the recovery area on a trolley and be able to sit up. The nurses 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 a few hours, until you have recovered when you will be allowed home. You cannot drive or operate machinery after having medication through the arm vein.

While you should continue to walk and undertake light activities you are asked to **avoid any vigorous exercise or heavy lifting for at least 5 days** to allow the inflammation in the vein to settle down and stop the vein from re-opening. The veins in the scrotum (varicocele) slowly disappear in most patients over the next 8 – 12 weeks, in a minority of patients some small veins remain but symptoms improve in the over 90% of patients.

Are there any risks or complications?

Varicocele embolisation is a very safe procedure but as with any 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, and this is quite normal. If this becomes a large bruise then there is the small risk of infection, and this would then require treatment with antibiotics.

In a small number of patients the liquid/foam used to close down the vein can irritate the veins around the testicles in the scrotum and this can result in discomfort or pain for a few days. This usually goes away with simple painkillers (paracetamol or ibuprofen). This does not cause any injury to the testicle.

Unfortunately, there is always the possibility that although the varicocele seems to have been cured to start with, months or even years later, it may come back again. If this happens 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 with no significant side effects at all.

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Varicocele embolisation is considered a very safe procedure, designed to prevent you having a larger operation. There are some slight risks involved however they are generally minor and occur infrequently.

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