Sclerotherapy and Venous Vascular Malformations

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Welcome to radiology

Sclerotherapy for Venous Vascular Malformations

What is a vascular malformation?
Vascular malformations or vascular anomalies are abnormal collections of vessels with normal endothelium (lining). They are present from birth, but often not noticeable until much later in life. They grow with the person and may not cause any symptoms at all. They most commonly appear as a soft lump with a bluish colouration. They may cause pain and/or be cosmetically disfiguring. These symptoms may worsen after trauma, infection or hormonal changes such as puberty or pregnancy.

Who will be involved in my treatment?
Your initial consultation is likely to be with a Consultant Radiologist, but at North Bristol there are Vascular Surgeons, Plastic Surgeons, Orthopaedic Surgeons, Dermatologists and Psychologists all with experience in vascular anomaly management, allowing a multidisciplinary approach to treatment.

How is a suspected vascular anomaly investigated?
Usually the diagnosis can be made on clinical examination and patient history at an out patient appointment. A duplex ultrasound may be used to assess the area in question. It is likely that you will then be booked for an MRI (Magnetic Resonance Imaging) scan. This type of scan is able to build up pictures of the inside of the part of your body under examination. The images are very detailed and can show both bones and soft tissues.

What is sclerotherapy?
Sclerotherapy is a treatment for vascular malformations. Chemicals that cause vessels to block and close up are injected directly into the abnormal vessels that make up the anomaly. This is performed using imaging guidance to ensure the chemicals do not affect normal structures. The procedure is performed by a team lead by a...
Consultant Radiologist. A Radiologist is a doctor who has particular training and experience in the use of imaging to guide treatment.

**Who has decided that sclerotherapy is appropriate for me?**

If sclerotherapy has been proposed for you the Consultant Radiologist, in agreement with the doctors in charge of your care (Consultant Surgeon or Consultant Physician), will have decided that you would be likely to benefit from sclerotherapy. However, you will also have the opportunity for your opinion to be taken into account and if after discussion with your doctors you do not want the procedure carried out, then you can decide against it.

**What happens during a sclerotherapy session?**

Following discussion with the Radiologist at an outpatient’s appointment, it may be agreed that sclerotherapy would be appropriate for you. You will be admitted to hospital on the morning of the procedure; probably after having been assessed at a pre-assessment clinic.

You will be asked to sign a consent form either on the ward or once you have been transferred to the Radiology Department. A plastic cannula will be placed in a vein away from the anomaly to be treated. You will lie on an “X-ray table” and the skin over the anomaly will be cleaned with disinfectant solution. A nurse will administer painkillers and sedative drugs through the plastic cannula, while the Radiologist injects local anaesthetic and sclerosant into the vascular anomaly. The procedure is likely to take about 30 minutes.

The needles used in this procedure are small, but you will feel some stinging sensation initially, rather like you may do when having local anaesthetic administered at the dentist. During the procedure you are likely to experience some aching of the area of the body affected by the anomaly, but the sedatives and painkillers administered will prevent this from becoming too unpleasant. At the end of the procedure, if the anomaly is in a limb, the limb will be bandaged.
What am I likely to experience after a sclerotherapy session?

In the first 12 hours following sclerotherapy, the anomaly is likely to be very swollen. You will usually be kept in hospital overnight and painkillers will be administered as necessary to keep the inevitable associated pain under control. The pain will resolve within a few days but it may take several weeks for the swelling to settle completely.

You may notice your urine turn red the first time you urinate after the procedure. This is entirely normal after sclerotherapy and should not cause you any concern. You may possibly also experience a fever during the first 12 hours after the procedure, though this will resolve without further treatment.

If the lesion is in a limb you will be asked to wear a compression garment for the first few weeks following the procedure. You will have been measured for this following your first out patient attendance.

Are there any more serious consequences of sclerotherapy?

Occasionally, blistering of the skin and possibly ulceration can occur. If it does, it will heal over again in time, though it is likely to leave a whitish scar. Damage to nerves that pass near to the vascular anomaly has also been reported occasionally, though this is almost always temporary.

How successful is sclerotherapy?

Many studies of sclerotherapy for vascular malformations have been published in the 1990s and since 2000. These report success rates of 6-10 out of 10 patients. From these studies we can expect that a patient with a vascular malformation suitable for sclerotherapy is likely to have an improved quality of life in the majority of cases following a series of sclerotherapy treatment sessions. However, it would be very unusual for the patient to be completely cured. It is almost never possible to eliminate the anomaly completely using sclerotherapy.
Am I likely to need more than one treatment session?

The amount of sclerotherapy that can be performed at a single treatment session is limited by the local pain and swelling caused. Whether or not multiple sessions are required depends in part on the size of the anomaly, but the majority of people with a vascular malformation require multiple sessions. This may be 2, 3 or 4 for a successful outcome. Because it is rare for a patient to be completely cured of a vascular malformation, after a number of years the anomaly may again start to cause symptoms and further treatment session(s) may be required at that time.

References and Sources of further information


NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution
If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

© North Bristol NHS Trust. This edition published May 2014. Review due May 2016. NBT002065