Interventional Radiology

Sclerotherapy and Embolization of Vascular Malformations

What is sclerotherapy?
Your child has been referred to the interventional radiology (IR) department because he or she has an abnormal and possibly painful mass of blood vessels or lymph vessels. A mass made up of blood vessels is called a venous or arteriovenous malformation. A mass of lymph vessels is called a lymphatic malformation. Sclerotherapy is the use of special liquids called sclerosants and specially shaped pieces of metal called coils to make these malformations shrink and relieve the pain.

How do we perform sclerotherapy?
Treatment depends on the size and location of the malformation:

- Small malformations can usually be treated simply with injection of a liquid called a sclerosant. This liquid causes the malformation to scar and shrink.
- Larger lymphatic malformations must first be drained overnight and then injected the next day with sclerosant.
- Large venous or arteriovenous malformations, or those involving larger blood vessels, must first be blocked (embolized). This prevents the sclerosant from flowing elsewhere in the body. Embolization is done with a special sealant or with tiny, specially shaped metal implants called coils that will block and seal the vein. After the draining vein is fully embolized, the interventional radiologist can inject the sclerosant into the malformation.

During sclerotherapy treatment, our interventional radiologist uses live imaging (X-ray and ultrasound) to guide injection needles and implants precisely into the malformation. He or she will inject a special dye that makes the malformation easier to see through imaging.

Sclerotherapy normally takes about one to two hours, including time for sedation or anesthesia. An anesthesiologist will monitor your child closely while he or she is sedated or asleep. After the procedure is done, your child will be taken to a recovery room to wake up.

What happens after sclerotherapy?
Recovery from sclerotherapy depends on the size, type and location of the malformation. In some cases, your child can go home soon after the procedure. If the malformation is large and deep inside the body, he or she may need to stay in the hospital. The treatment will cause swelling and pain, which will last for a few days. We will give your child pain medication to minimize discomfort.

Venous, arteriovenous and lymphatic malformations often come back so your child will probably have several sclerotherapy treatments.

What are the risks of sclerotherapy?
Sometimes the incision may bleed and in rare cases infection is possible. The sclerosant can cause numbness in the area that was treated and this numbness may take a while to go away. A rare occurrence is a blood clot forming and being carried by the blood into the lung (pulmonary embolism) An allergic reaction to the dye used to help the interventional radiologist see clearly inside the body is possible but rare.
What if I have more questions?
Bring questions with you when you come to your child’s appointment. The interventional radiologist will be happy to answer questions and help you feel comfortable with the care your child is receiving.