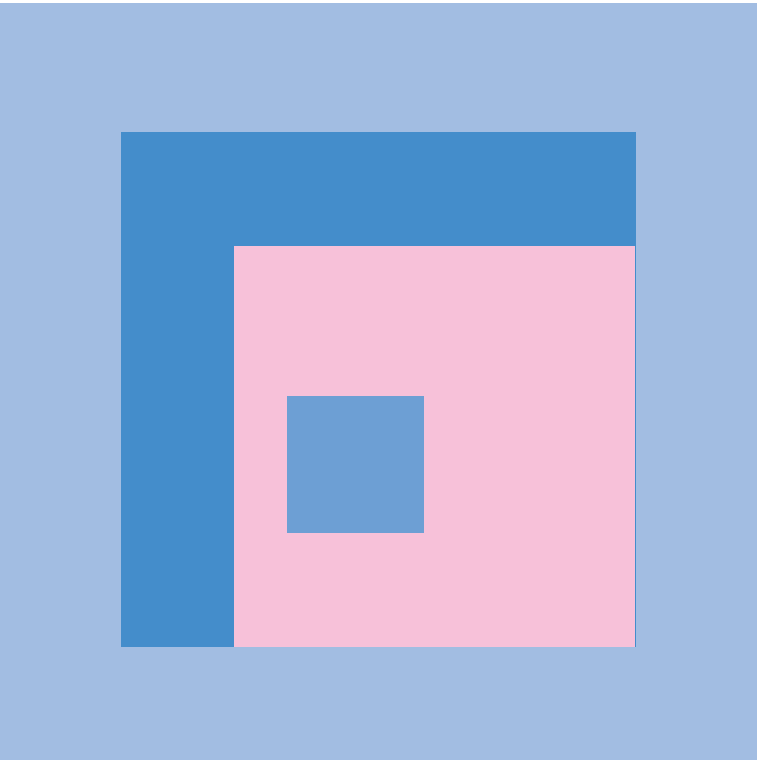
KK Women's and Children's Hospital
SingHealth

Sclerotherapy



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What is sclerotherapy?

Sclerotherapy is a type of treatment that involves the injection of a special chemical into the vascular (blood vessel) malformation to shrink it and relieve the symptoms it is causing.

Sclerotherapy can be used to treat various vascular malformations including venous and lymphatic malformations.

Sclerotherapy is performed under image guidance by interventional radiologists.

How does sclerotherapy work?

Various medications that cause swelling, called sclerosants, may be used alone or in combination for sclerotherapy. Commonly used sclerosants include sodium tetradecyl sulphate (STS), alcohol, doxycycline, and bleomycin.

When injected into a lesion, sclerosants cause an inflammatory reaction to the vessel wall, causing a localised blood clot to form resulting in a scar in the malformation that eventually leads to shrinkage of the malformation.

How is sclerotherapy performed?

Sclerotherapy is performed by precise injection of sclerosant into the vascular malformation using ultrasound, X-ray, or CT guidance, and is performed under sedation or general anaesthesia (GA).

After identifying the appropriate treatment area, needles and/or catheters are placed through the skin and into the malformation.

A dye that is visible on x-ray may be injected to assess the degree of communication with adjacent blood vessels and determine the volume of sclerosant to be injected.

Sclerosant is then injected into the malformation.

Sometimes, fluid (e.g. lymph) may be drained from the spaces to reduce swelling before the sclerosant is injected to reduce dilution of the sclerosant.

The needles / catheters will be removed at the end of the procedure.

How soon will I see results and how many sessions are required?

Although some vascular malformations may reduce in size after just 1 or 2 treatment sessions, often multiple (6 to10) sessions at two-monthly intervals are required to adequately treat a malformation. It may take some time before the patient notices a significant difference.

Not all malformations are successfully treated in this way and the results can vary between individuals with the same diagnosis. However, in the vast majority of cases clinically significant improvement is achieved.

Sclerotherapy is not a 'cure' that eradicates these malformations but is aimed at symptom control and management of size. Sclerotherapy may not treat skin discoloration associated with some malformations.

What are the risks of sclerotherapy?

Immediately after the injection, swelling and pain can occur, worsening over the first two days then begins to reduce from day 7. Oral medications such as paracetamol or ibuprofen are usually prescribed to manage the pain or discomfort.

There is a low risk of infection as sclerotherapy is carried out via a needle puncture and not an incision. However, this is very rare.

Bruising may occur after sclerotherapy due to internal bleeding. This may reduce in size over days to months or sometimes persist.

There is a small risk that the skin over the malformation may blister or even breakdown (ulcerate). With appropriate, sometimes prolonged wound care, the wound will improve in time and possibly leave a scar. This is more common in superficial malformations that involve the skin or occupy a large area directly under the skin (subcutaneous). Laser therapy or surgical revision of such scars can be done later if required.

If a malformation is near a nerve or group of nerves, the swelling induced by sclerotherapy can sometimes compress the nerve, leading to a loss of sensation in the area or even local muscle weakness. However, this is uncommon. This condition is termed 'neuropraxia' and is often temporary and seldom permanent. With the use of alcohol, however, the nerve can be permanently damaged.

If bleomycin is used as a sclerosant, flu-like symptoms can occur after the procedure. There is also a risk of skin discolouration, usually over sites of pressure or occluded areas (e.g. below pressure dressings). This discolouration may last for months and can be permanent in some instances.

When bleomycin is used in much higher systemic doses (e.g. if injected into the blood system to treat cancers) there is a small risk of causing lung damage or hardening. Fortunately, when injected locally for sclerotherapy of vascular anomalies, the risk has not been reported.

As sclerotherapy is not curative, there is a chance of recurrence, sometimes years after the initial treatment. Repeat treatments may then be required.

Every case is different, and your doctor will explain details of the treatment plan with you.

Useful telephone number

Central Appointments 6294-4050

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