

Absolute and relative contraindications of sclerotherapy

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Lists for sclerotherapy contraindications can be derived from sources such as sclerosant product information and empirical/ theoretical extrapolation. Recommendations on this issue can also be found on physician websites, journal articles, text-books as well as from consensus documents relating to sclerotherapy.

No single list is entirely comprehensive. A typical recommendation is the Australasian College of Phlebology consensus document on sclerotherapy which reasonably separates absolute from relative contraindications. This presentation will address and discuss a typical contraindication list for sclerotherapy.

Absolute contraindications include:

- Previous anaphylaxis to proposed sclerosants
- Acute DVT

Relative contraindications include:

- Deep venous obstruction
- Peripheral vascular disease
- Documented thrombophilia (w increased risk of DVT)
- Inability to mobilize
- Acute SVT
- Pregnancy/ Breastfeeding
- OCP/HRT
- Skin disease (systemic disease)
- Uncontrolled asthma
- Uncontrolled migraine
- Poor tolerance of compression

Other listed contraindications from published journals include:

- Obesity
- Deep vein incompetence
- Needle phobia
- Pts on Disulfiram (POL – contains ethyl alcohol)
- Advanced age
- Anticoagulation
- Pelvic tumours causing VV
- Acute infections/ fever
- Tamoxifen (increased risk of superficial phlebitis)
- Foramen ovale/ visual disturbance (foam)
- Recent long distance travel, lower extremity cast, enforced bed rest (one month)

All of the above listed contraindications are reasonable and acceptable to most patients and physicians. Few would argue against the absolute contraindication of anaphylaxis and acute DVT in sclerotherapy. However, for relative contraindications, this “relativity” is at times tested in clinical practice. The experienced Phlebologists may consider the benefits of treatment to outweigh potential risks associated with the mitigating factor and elect to treat.

Three clinical conundrums involving patients with relative contraindications to treatment are presented to illustrate how treatment decisions are made on a case-by-case basis in daily practice.

Case 1 – “The breast feeding mother”

A 36 yr old flight attendant, 12 weeks post-partum, presents with varicose veins for treatment. She has full length right long saphenous vein reflux (max diameter 5mm) with incompetent tributaries. She is still breast feeding and want to have her veins treated before going back to work and while she is still able to benefit from the medicare safety net rebate which runs out in a month. What can you offer her?

Discussion

PI listing for both STS and POL state that: “it is not known whether (STS or POL) is excreted into human milk.... Use in lactations is not recommended (STS)... Caution should be exercised when used in nursing mothers (POL).” Weiss recommends waiting for a period of 4-6hrs after treatment before breast feeding.* Breast pumps can be used pre-sclerotherapy to store breast milk for feeds immediately after sclerotherapy. The T1/2 for POL is 4h and that of STS is unknown. It is generally accepted that treatment with hypertonic saline is safe in nursing mothers.

This patient was scheduled for endovenous laser ablation (‘chemical-free’). Intra-operatively, the procedure was unsuccessful due to extreme venospasm of the target vein (prox GSV). The patient requested foam injections and promised to change to bottle feeds. Treatment was uneventful and she elected to continue breastfeeding the following day.

One other relevant issue is the timing of treatment postpartum. This is generally accepted as 3 months to accommodate spontaneous reversal of varicose veins post partum and regression of pregnancy associated thrombotic risk towards baseline.

Case 2 – “Mr Thrombophilia”

A 35 year old man with anti-cardiolipin antibody syndrome and heterozygous MTHFR re-presents with painful left medial ankle ulcer secondary to recurrent DVTs and post-thrombotic syndrome. He has been struggling with the ulcer for over 2 years and is desperate for intervention. He experienced his first DVT/PE at 26 and has been warfarinised since and is currently on daily clexane. He wears a class 2 stocking daily and has attempted profore on several occasions which helps but does not prevent recurrence of the ulcer. How can you help him?

Discussion

Many sclerotherapy contraindication lists include thrombophilia which is relative indication on the ACP consensus document. The concern is sclerotherapy causing a DVT in an individual already predisposed towards this event. Acute DVT is a clear absolute contraindication. Patients with a past hx of thrombophilia and DVT should best be left alone unless the potential gain from treatment outweighs the risk.

Thrombophilias with low to moderate clotting risks are relatively contra-indicated and should only be managed by experienced Phlebologists. Patients with anti-thrombin 3 deficiency should never be injected as they have a tendency to develop DVTs and, if they develop a clot, heparin is ineffective in the absence of AT3.

This man was treated with a couple of sessions of echosclerotherapy. He did not develop a DVT on serial duplex follow-up scans. Following treatment, the ulcer healed within 3 weeks to the relief and astonishment of the patient. He remains ulcer-free at 9 months follow up.

Although anticoagulation is often cited as a relative contraindication, there are no drug interaction issues per se and the real issue is the underlying primary prothrombotic disease. As such, should anticoagulation in non-thrombotic conditions such as AF be a barrier to sclerotherapy? Certainly extra-precaution is required (increased bleeding tendency) but this is the case with all skin related procedures such as excision of skin cancers where ongoing (intraoperative anticoagulation) is no longer an issue. Is it time to reconsider our position on blood thinners and large vessel sclerotherapy?

Case 3 - “Pregnant and willing”

A 36 year old mother, G8P8, with painful venous ulcers capping off her severe bilateral varicose veins seeks treatment. She also has severe stasis dermatitis, hyperpigmentation, and atrophie blanche/ healed ulcer scars. Whilst waiting for her treatment session, she falls pregnant again. You cancel her treatment appointments and recommend compression and for a review 3 months after her delivery. You are surprised to get a call from her solicitor husband who has researched the matter and tells you that “thousands of women have been treated during pregnancy without harm”. He wants to know the risk and danger to mother and pregnancy by not treating - and specifically points out maternal distress, infection, clots etc – as detrimental factors to the pregnancy. He feels that the benefit of treatment may, in this case, outweigh the risks. What is your response to the husband’s proposal?

Discussion

The Phlebology literature supports treating painful vulval varicosities (W263) during pregnancy. It is true that that many thousands of pts have been safely treated with sclerotherapy (STS and POL) with no evidence of detriment to the pregnancy. The pregnancy rating for STS and POL is B2 and B3 respectively (animal studies only- refer

to MIMS). Both PIs do not recommend treatment during pregnancy in the absence of well controlled studies.

Another issue is the hypercoagulable state of pregnancy (which persists for up to 3 months post partum) increasing this patient's risk for DVT.

I elected not to treat this patient with sclerotherapy. She should persevere with compression and consider profore-type compression to accelerate ulcer healing. She should be seen at regular intervals and watched for complications such as clots and thrombophlebitis. Non urgent elective procedures should be deferred till after pregnancy. It is especially important to avoid the first trimester as this is the period of fetal organogenesis.

Recommended reading

Breu FX, Guggenbichler S. European Consensus Meeting on Foam Sclerotherapy, April, 4-6, 2003, Tegernsee, Germany. *Dermatol Surg* 2004; 30:709-717.

Ultrasound Guided Sclerotherapy – diagnose venous disease and treat superficial venous incompetence with injected sclerosants under ultrasound guidance. Australasian College of Phlebology and NZ College of Appearance Medicine. 1 May 2005.

Weiss RA, Feied MA, Weiss MA. *Vein Diagnosis and Treatment: a comprehensive approach*, USA: McGraw-Hill, 2001.

Goldman MP, Bergan JJ, Geux Jean-Jerome. *Sclerotherapy: Treatment of varicose veins and telangiectatic leg veins*, 4th edn. Philadelphia: Mosby Elsevier, 2007.

* Weiss RA, Feied MA, Weiss MA. *Vein Diagnosis and Treatment: a comprehensive approach*, USA: McGraw-Hill, 2001; p165.