Neurointervention 2019;14:61-62
https://doi.org/10.5469/neuroint.2019.00059

Commentary to: Efficacy of Percutaneous Sclerotherapy in Low Flow Venous Malformations - A Single Center Series

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The authors report their experience with sclerotherapy for 35 patients with venous malformation (VM) in recent three years.[1] Their diligent repeated multi-session sclerotherapy strategy is impressive. Using bleomycin and sodium tetradecyl sulfate (STS), they achieved favorable results for managing VM.

Recently, the International Society for the Study of Vascular Anomalies (ISSVA) has reached a consensus for classification of vascular malformation. VM is classified in both simple and combined vascular malformation categories. In contrast to simple VM comprising of dilated venous spaces, combined forms present lymphatic-venous, capillary-venous, and capillary-lymphatic-venous malformations. In addition, the VM spectrum ranges from superficial to deep-seated, from small to extensive, and from isolated to well-drained morphologies. Also, some vascular anomalies containing a venous component, such as glomuvenous malformation, verrucous VM, and cerebral cavernous malformation, are included as a VM.[2] Since a VM cannot be a single disease entity, its clinical progress and response to treatment are different regarding pathological complexity of the lesion and the surrounding environment.[3]

There are several choices of agents for sclerotherapy, including absolute alcohol, STS, Bleomycin, Doxycycline, OK-432, polyiodide iodine, and polidocanol, and so on. The choice of sclerosant should balance between efficacy and risk of complication and should depend on the subtypes and morphology of VM. For example, an isolated superficial VM would better be treated using a long-lasting pharmacological agent, such as bleomycin, doxycycline, and OK-432, with or without foamed STS. In case of well-developed venous drainage, a draining vein occlusion, either by extrinsic compression or embolization, would be needed before sclerosants infusion. A deep-seated, well-confined VM can be treated by strong corrosives or detergents, such as alcohol, tri-iodinated iodine, STS, or polidocanol.[4] The most difficult situation for VM sclerotherapy would be an extensive VM replacing an almost soft part of a limb with remarkable draining into large veins. In this case, a long-term, well-understood, multi-modal, repeated treatment plan is needed. With surgery as a back-up, sclerotherapy can adopt the strongest agents, such as alcohol and high concentration STS, conjoined by embolization using NCBA or coils.

The sclerosants infusion should cover the lesion territory as fully as possible under surveillance by angiography and/or ultrasonography. After a sclerotherapy session, post-procedural care follows, which can include the use of extrinsic compression, antibiotics, and anti-inflammatory drugs. From a technical viewpoint, sclerotherapy sessions should continue until no reachable venous space is noted, as far as patients can be compliant. However, from a clinical viewpoint, the primary goal of sclerotherapy is to maintain the lesion as subclinical and not to eradicate all of the visible lesion.[5] In addition, treatment solutions for VM should include not only sclerotherapy but also surgical resection, laser therapy, and drug medication, such as an mTOR inhibitor.[6] Comprehensive treatment solutions for all kinds of vascular anomalies can become realistic in an interdisciplinary clinic, which consists of interventionists, surgeons, and dermatologists.[7]

pISSN 2093-9043
eISSN 2233-6273

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