

# Cyanoacrylate adhesive embolization and sclerotherapy for primary varicose veins.

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### Abstract

Various treatment methods are available for the treatment of varicose veins, and there has been a recent surge in the usage of cyanoacrylate **glue** for treating varicose veins. Purpose To investigate the technical possibility, efficiency and safety of cyanoacrylate adhesive embolization and sclerotherapy using commonly available n-butyl cyanoacrylate **glue** for the treatment of primary varicose veins due to great saphenous vein reflux with or without incompetent perforators. Materials and Methods **One hundred forty-five limbs of 124 patients** with varicose veins due to great saphenous vein reflux were subjected to cyanoacrylate adhesive embolization and sclerotherapy - adhesive embolization of great saphenous vein in the thigh and perforators using cyanoacrylate followed by sclerotherapy of any residual varicose veins in the leg. Procedural success, venous closure rates and clinical improvement were assessed. **Follow-up** for 1, 3, 6, 9 and **12 months** was obtained. Results **Technical success rate was 100%**. **Saphenous vein closure rate was 96.5% at one year**. There was no femoral venous extension of cyanoacrylate in any of the patients. Posterior tibial vein extension of cyanoacrylate was seen in three patients (2.6%) without untoward clinical effect. Significant improvement was found in venous clinical severity score (VCSS) from a baseline mean of  $7.98 \pm 4.42$  to  $4.74 \pm 3$ ,  $1.36 \pm 1.65$  and  $0.79 \pm 1.19$  at 1, 6 and 12 months' follow-up. Ulcer healing rate was 100%. **Conclusion** **Cyanoacrylate adhesive embolization and sclerotherapy for the treatment of primary varicose veins is efficacious and can be performed as an outpatient procedure, but has a guarded safety profile due to its propensity to cause deep venous occlusion if not handled carefully.**

**KEYWORDS:** Cyanoacrylate adhesive; sclerotherapy; varicose veins

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