



A common postoperative complication with this procedure is forearm swelling. Distal vein ligation is believed to reduce postoperative venous hypertension and forearm swelling” Prasertcharoensuk et al (2017).

Abstract:

Purpose: Forearm loop arteriovenous grafts (AVGs) are an effective way to grant permanent vascular access in end-stage renal disease patients undergoing hemodialysis. A common postoperative complication with this procedure is forearm swelling. Distal vein ligation is believed to reduce postoperative venous hypertension and forearm swelling. There have been no previous randomized controlled trials comparing the efficacy of AVGs with and without distal vein ligation.

Methods: A pilot study was performed as a randomized controlled trial. End-stage renal disease patients who required AVG construction were recruited and randomly assigned to either the distal vein ligation group or the nondistal vein ligation group. Forearm swelling, graft patency, and graft thrombosis were recorded and compared.

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Results: The nonligation and ligation groups consisted of 30 and 31 patients, respectively. Forearm swelling at both the proximal and distal areas was nonsignificantly higher in the nonligation group than in the ligation group. The success rate of cannulation of the graft was 77% in both groups. The first cannulation time was somewhat shorter in the ligation group than in the nonligation group (57 vs 63 days;  $P = .282$ ). There was no difference in graft thrombosis between the 2 groups (8 and 6 patients, respectively, in the nonligation and ligation groups).

Conclusions: AVGs can be performed with or without distal vein ligation.

Reference:

Prasertcharoensuk, S., Jirasiritham, S., Tirapanich, W., Leela-Udomlipi, S., Pootracool, P., Horsirimanont, S., Lertsithichai, P., Phasit, C. and Lieungthada, N. (2017) Comparison of Forearm Swelling After Loop Forearm Arteriovenous Graft between Distal Vein Ligation and No Ligation. *The Journal of the Association for Vascular Access*. 22(2), p.93–97.

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