

**BRIEF COMMUNICATION****NEW TECHNIQUE FOR THE SUBCUTANEOUS DRAINAGE OF PERIPHERAL LYMPHEDEMA****M. Degni**

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Treatment of chronic lymphedema is still suboptimal. To mobilize stagnant lymph in the lower extremities, I have designed a new operative approach. Multi-perforated silicone drainage tubes are tunneled into the subcutaneous tissue of the thigh, distal leg, and foot and joined to a common chamber containing a one-way low pressure valve. A fourth catheter connected to the chamber drains into the deep venous system via the greater saphenous vein (*Fig. 1—see next page*). The three afferent drainage catheters are each 1 meter in length while the efferent connector is 25cm long. The chamber valve opens at very low pressure (<3mmHg) and resists venous pressure to 300mmHg thereby preventing reflux of blood into the tubing and subsequent clot formation. In this regard, the device resembles the peritoneo-venous (LeVeen) shunt used for control of refractory ascites in patients with hepatic cirrhosis. The afferent catheters are introduced using a 50cm long rod which has a hooked end to facilitate placement. It is best to keep these patients anticoagulated (e.g., Marcoumar) to minimize lymph coagulation in the catheters.

Early experience using this technique in 10 patients with moderate to severe lymphedema is encouraging with a mean reduction of 70% of peripheral swelling.

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*Editor's Comment:*

*Another ingenious idea for the control of chronic lymphedema. At first glance it seems unlikely that this device will function long-term with intractable lymphedema and varying degrees of interstitial fibrosis. After all, even in "cirrhotic" patients with a belly full of freely floating low-protein ascites, insertion of a similarly designed mechanical device (LeVeen shunt) has a disturbingly high rate of spontaneous closure. With the availability now of simple and safe lymphangiography (i.e., LAS or isotope lymphography), the efficacy of this drainage method should be documented by high quality LAS before and after shunt insertion. (CLW)*

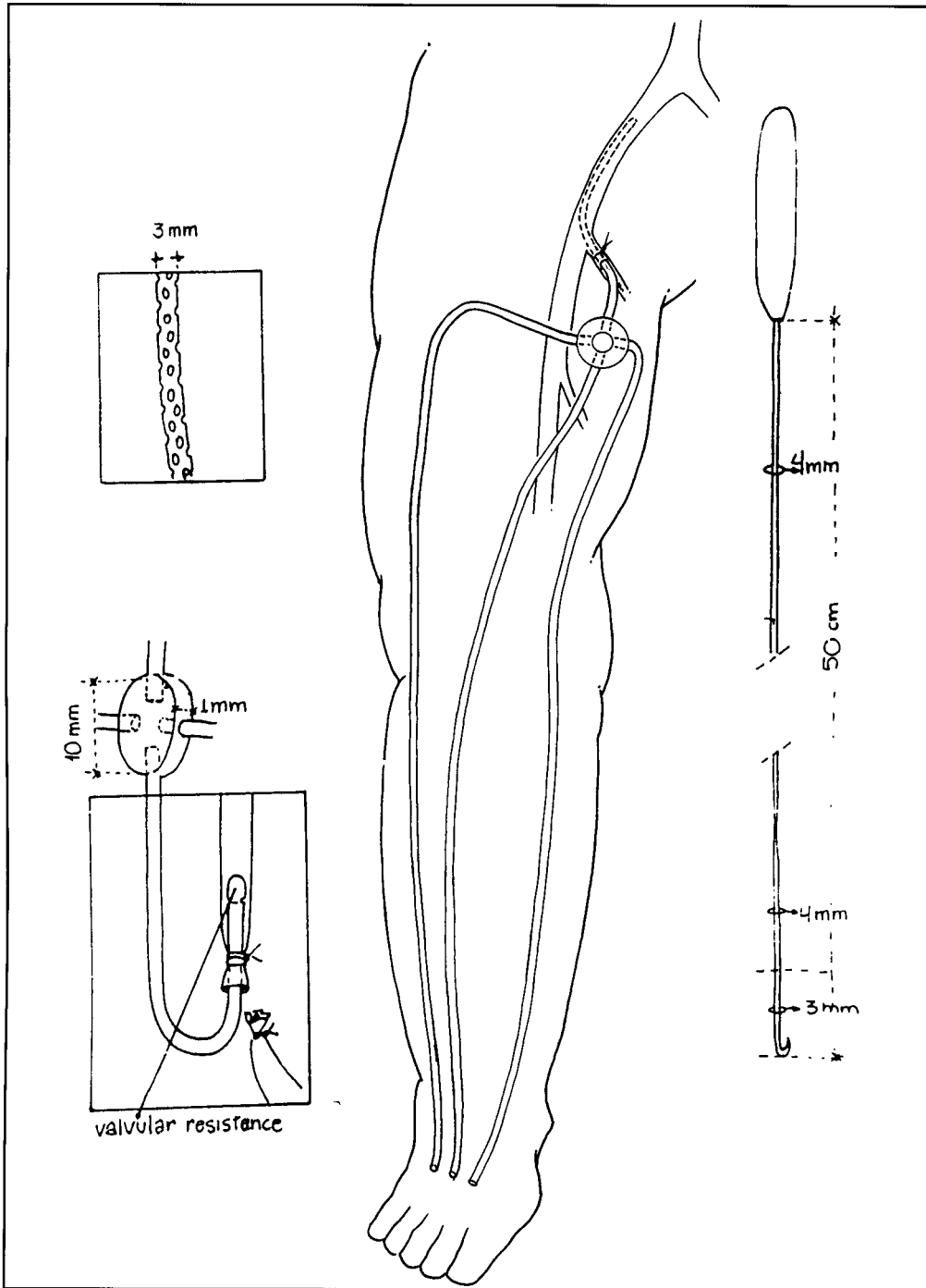


Fig. 1. Subcutaneous-venous shunt for control of chronic lymphedema. Insets show multiperforations of drainage tubes, details of connectors to the chamber valve and tunneler for afferent tube insertion (see text for further details).