

Short Paper

A simple method of measuring volume in lymphedema patients

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In lymphedema, besides measuring limb girth at various levels, it very important to measure volume of the affected and non-affected limb for comparison. When the patient is under conservative treatment, the gradual reduction of volume will indicate the effectiveness of the treatment. This can be also correlated with daily urine out-put and loss of weight of the patient. The volume of extremity is determined by measuring the amount of water displaced by the limb when immersed. This is based on Water Displacement Principle.

In our department for last 30 years we have been measuring limb volume in an indigenously made Aluminum Drum fitted with a nozzle. The patient is asked to immerse his limb in the drum filled with water upto the nozzle and the amount of water coming out of the nozzle in a bucket is measured and recorded. As a further modification, instead of Aluminum, we have

used a plastic water drum and got a nozzle fitted on it. This is much easier to clean and can be easily made by anyone (Figure 1).

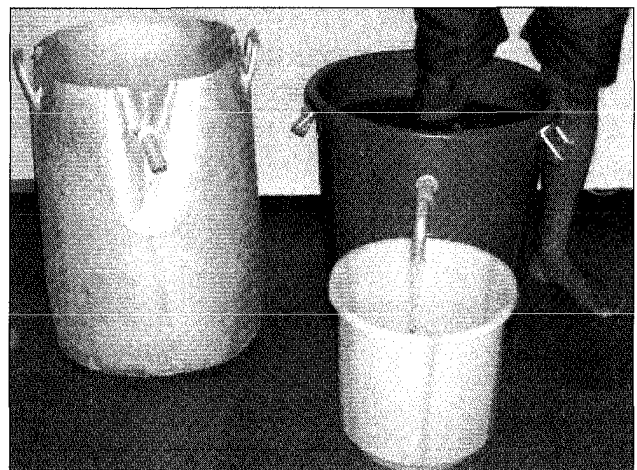


Figure 1: Shows old aluminum drum and new plastic drum. Water is seen coming out the nozzle while the leg through is immersed