LIMB CIRCUMFERENCE MEASUREMENT FOR RECORDING EDEMA VOLUME IN PATIENTS WITH FILARIAL LYMPHEDEMA

S.P. Pani, P. Vanamail, J. Yuvaraj

Vector Control Research Centre (Indian Council of Medical Research), Medical Complex, Indira Nagar, Pondicherry, India

ABSTRACT

To evaluate the impact of therapy and monitor the progression of filarial lymphedema, it is necessary to measure accurately the changes in limb edema volume. In this communication, we report the reliability of circumference measurements for recording volume changes. The measurements included the distal parts of limbs important for filarial lymphedema. In a series of 100 patients with unilateral lower limb lymphedema, both water displacement and circumference measurements were done. The results showed a significant correlation ($r=0.91; \ P=0.0000$) between the actual volume and that estimated by circumference measurement. Not only could volume of edema be calculated by circumference measurements, but the simple measurement of average circumference difference between the affected and normal limb accurately reflected the volume of actual edema.