MORPHOLOGIC AND FUNCTIONAL CHANGES OF THE MICROLYMPHATIC NETWORK IN PATIENTS WITH ADVANCING STAGES OF PRIMARY LYMPHEDEMA

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ABSTRACT

Using fluorescent microlymphography, we examined the morphology and functional characteristics of the microlymph-vascular network in 36 subjects including 9 patients with “compressible” lymphedema (Group I), 14 with minimally compressible lymphedema (Group II), 9 with noncompressible lymphedema (Group III), and 4 healthy individuals.

As lymphedema progressed from early to advanced stages (Group I-III), an increasingly greater lymphatic capillary density and diameter were depicted and eventually fibrosis/sclerosis with lymphangiectasia, fragmentation and a gradual decrease in the number of microlymphatics. Concomitantly, there was a prolongation in transport and disappearance of fluorescent dye and a progressive increase in endolymphatic and interstitial hydrostatic pressures.