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Professor Neil Piller

Results Of A Single Blinded Placebo Controlled Trial Of The Bodyflow™ Technique For The Treatment Of Lymphoedema Of The Legs

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Major lymph collectors are pulsatile and involve neurogenic and myogenic control: Higher rates and more forceful contraction mean higher flow volumes.

Bodyflow™ treatment involves mild electrical stimulation of the lymphatic. In this trial 30 patients with secondary lymphoedema were treated with placebo or active treatments 3-4 times per week for 4 weeks. Compression bandaging was applied between treatments and garments at the end of the treatment. 12 patients undertook self maintenance and represented the baseline. All patients were assessed prior to the trial, at each weeks end then at one month follow-up. Perometry, (limb volumes) bio-impedance (fluids) and tonometry (fibre) as well as subjective questionnaires were used.

There were statistically significant reductions in fluids in the active treatment group compared to the self maintenance group, with reductions averaging 30%. Total limb volumes reduced by over 15%. Tonometry showed significant reductions in the calf area, but these were similar in the placebo and active groups. Subjective comments showed statistically significant improvements for heaviness, tightness, range of movement and perception of leg size.

Reductions in all parameters and their significance were tempered by variations in treatment effectiveness. Case studies will be presented to show this effect. In some patients there were reductions in fluids and in others in tissue mass while in some, both reduced. One patient lost over 4000 gm of tissue mass - mostly fluid, another lost over 600 mls of fluid but showed increases in tissue mass – (muscle - associated with improved activity level). These are all positive outcomes, but variable, related to the stage of the lymphoedema.

Mild electrical stimulation of the lymphatic and skeletal musculature is an effective adjunct in the treatment of lymphoedema with outcomes dependent on the lymphoedema stage, indicating a need to target treatment to achieve either fluid or tissue volume changes. Irrespective of these, subjective improvements are consistent leading to improved quality of life and ability to undertake activities of daily living.