

A Pilot Study of the Effects of Pulsed Radio Frequency Energy on Post-Mastectomy Arm Lymphedema

Some reports suggest that microwave heating of a limb may be efficacious for treating lymphedema¹⁻⁵. An alternate approach, not previously used for lymphedema treatment, consists of pulsed radio frequency energy (27.120 MHz) that is coupled to tissue via dual pancake-like coils with controllable energy output*. In this pilot study, the possible efficacy of this method for treatment of post-mastectomy arm lymphedema was investigated. Seven women who had had unilateral mastectomies and subsequent lymphedema received 4-6 one-hour low-energy treatments. Coils were positioned just above the upper and lower portion of the affected arm. During the two-week treatment interval no other therapy was given. Arm volume was measured on both arms before initial treatment and prior to each subsequent treatment. Results (mean \pm sem) showed that the initial %edema of $24.5 \pm 7.3\%$ was significantly reduced to $18.5 \pm 6.3\%$ ($p < 0.01$) after one treatment with further reductions occurring through the fourth treatment ($n=7$). Overall, four treatments were associated with a reduction in %edema to $56.2 \pm 8.4\%$ of its initial value. These pilot findings are extremely encouraging and the method may prove to be an important therapeutic adjunct to current practice. However, final conclusions must await further and expanded placebo controlled tests.

*(Magnatherm, International Medical Electronics, Kansas City)

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