THE USE OF 5,6 BENZO-[±]-PYRONE (COUMARIN) AND HEATING BY MICROWAVES IN THE TREATMENT OF CHRONIC LYMPHEDEMA OF THE LEGS

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ABSTRACT

Sixty patients with leg lymphedema from a variety of etiologies were divided into randomized two groups, matched by Grade, duration, age, sex, and cause of lymphedema. Using a double-blind format, one group received 5,6 benzo-[±]-pyrone (coumarin 1,2 benzopyrone, 400 mg/day) for six months; the other received a placebo. For the next six months, both groups received a standardized regimen of heat (using microwaves) coupled with compression garments. Benzopyrone produced approximately 20% reduction in the volume (p=10^-4) and improvement in circumferences and tonometry (p=10^-5 and 10^-7). Symptoms (feelings of swelling, pain, heaviness and loss of mobility) were also significantly improved (p=0.03 to 10^-7).

During the second six months, when microwave heat therapy was added to drug therapy, the patients who had previously received the placebo showed significant improvement (p=0.03 to 10^-9) in signs and symptoms of lymphedema. Some, but not all, of the group that was receiving benzopyrones were also significantly improved by heat therapy (p=0.8 to 0.002). Taking benzopyrones for 12 months plus heat treatment for six months was significantly better, for some criteria, than the placebo plus heat therapy (p=0.7 to 0.04). On the other hand, heat plus either placebo or benzopyrone was often significantly better than either the active or inactive drug without heat (p=0.8 to 10^-9).