ELECTRIC PULSE MUSCLE STIMULATION IN TREATMENT OF LOW PHYSICAL ACTIVITY PATIENTS WITH VENOUS STASIS ULCERS

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Aim: To assess effectiveness of joint use of long-term compression bandages (LTCB) and indirect electric pulse muscle stimulation (EPMS) in the context of conservative treatment of low physical activity patients with venous stasis ulcers (VSU) in the lower leg region.

Methods: A total of 17 low physical activity patients with VSU (C6, CEAP) with the following underlying somatic pathology: obesity, cerebrovascular accident after-effects, distorting osteoarthroses. Patients' average age was 74,7+13,6 years. Males amounted to 35,3%,
females – 64,7%. In the course of the study we employed a combination of EPMS and
LTCB approaches (primary zinc oxide saturated bandage and auxiliary 100% cotton bandage with 90% stretching property*). LTCB were applied for up to 7 days.
Prior to forming the bandage the skin at the back of lower leg was covered with self-attaching electrode with its terminal positioned outside the bandage. Having been briefed the patients used EPMS 3-10 times a day at their own discretion. Treatment efficiency was evaluated for four weeks.

Results: Hypostatic venous edemae of lower extremities were cut short within 3-10 days. In 23,5% of cases a full epithelialization of ulcerations was attained at the end of fourth week, in 47,1% of cases the area of ulcer size diminished in size by half and in 29,4% of cases the ulcers showed initial epithelialization stage.

Conclusion:
Combination of EPMS and LTCB are effective methodq of VSU improvement of healing for low physical activity patients.
Portability, safety and ease of use of the technology, as well as the rate of exchange of LTCB (once a week), make this method applicable for at-home-treatment.

* Veinoplus®, made in France.