A pilot study conducted under clinical conditions to measure the effects of Circulation Doctor, a novel, non-invasive neuromuscular electrical stimulatory approach, on lower limb circulation.

Method

A group of 16 subjects was selected for trial according to a pre-agreed set of criteria (below). They were monitored and scored after treatment. Patient treatment and scoring were performed by Prof Mihaly Szacsky, Thermographic monitoring and analysis was performed by Dr Szabolcs Ladi, Szent-Gyorgyi Institute, Budapest, Hungary (Sandberg et al 2007) Other groups have published similar findings (i.e. Miller et al 1984, Sandberg et al 2007). The effects of a single treatment with the Circulation Doctor were measured using Somatoinfra scanning, which shows measurable improvement in circulation after the treatment (Somatoinfra investigation shows measurable improvement in circulation, the peripherial circulation became more homogenous). A change in sensation was recorded and calf circumference was measured before and after treatment.

Results

The effects of Circulation Doctor on lower limb circulation were assessed. The results showed consistent also with improved circulation. They were also consistent with the literature. Our group of patients included diabetics, patients with Metabolic Syndrome and patients who had been treated with other therapies for their circulatory problems. The results were positive for all patients. Circulation in affected limbs in 15 of the 16 cases, and the peripherial circulation became more homogenous. Furthermore, the patients reported improved circulation in their calf muscles, as indicated by the Somatoinfra scans. The results were consistent across all patients, and the improvements were statistically significant.

Discussion

We conclude that acute treatment with Circulation Doctor is a simple and effective way to improve circulation. The increase in blood flow is somewhat useful in immobile or reduced mobility patients with venous ulceration who do not use their calf muscle pump optimally (Moloney 2006), and in those who are therapy-resistant. Circulation Doctor can be used to treat circulatory problems including leg ulcers and poor circulation in the legs, and to reduce the risk of deep vein thrombosis. Wasting can be at least partly prevented by using electrical stimulation to exercise the muscle passively.

Declaration of Interest

We undertook a pilot study to measure the effects of a novel neuromuscular electrical stimulatory approach, Circulation Doctor, on lower limb circulation. We were funded by BioEnergiser Ltd. We also received occasional consultancy services to BioEnergiser Ltd. We declare that we have no other conflicts of interest.