

Evaluation of ultrasound, ultrasonophoresis and homeopathic mesotherapy on Cellulite treatment

Andreia Noites¹; Miram Couto¹; Ana Nunes³; Josiane Nobre²

¹ Department of Physiotherapy, School of Allied Health Sciences, Polytechnic Institute of Oporto, Vila Nova de Gaia, Portugal

² Physiotherapist, Clinical Practice, Switzerland

³ Department of Pharmacology, Escola Superior de Saúde do Instituto Jean Piaget, Vila Nova de Gaia, Portugal

Introduction: Cellulite is a complex architectural disorder with multifactorial etiologies that is prevalent in 98% of the women (1). Nowadays several aesthetic treatments are being used: surgical, cosmetic, physical, mechanical, and thermal. (2) Most treatments lack a substantial proof of efficacy.

Objective: The purpose of this study was to test and evaluate the efficacy of Ultrasound, Homeopathic Ultrasonophoresis, and Homeopathic Mesotherapy versus control in cellulite in a population of women from ESTSP.

Methods: Female volunteers (n=23), Caucasian, aged between 18-31 years, with BMI 19- 27 kg/m² with clinical cellulite gradation on the Cellulite Grading Scale of 1 to 4 were included in a controlled study. Subjects were assigned in four different groups: Group I (Control, n=6), Group II (Ultrasound, (n=5), Group III (Homeopathic Ultrasonophoresis, n=6), Group IV (Homeopathic Mesotherapy, n=6). Groups II to IV were treated 3 times per week, for a total of 10 sessions. Cellulite gradation was evaluated at the beginning and the end of the trial by means of clinical photography, using a Canon IXUS 65 (6 mega pixels). For homeopathic treatments Dr. Reckeweg® Rekin® 59, 13 and 42 – Dietmed were used. The rating of perceived pain during Homeopathic Mesotherapy was evaluated by a visual analogic scale (VAS). The equipment Sonopuls 692, Enraf-Nonius was used for Ultrasound and Ultrasonophoresis treatments.

Results: The higher number of participants with improvement in cellulite gradation occurred in group II (80%), followed group III (50%) and by group IV (33%). The group in which more changes in cellulite gradation occurred was group II, 20% of the individuals improved their score in 2 points. Results were statistically different between Group I and Group II, p=0,015. During the treatments of homeopathic mesotherapy the pain diminished 1 value in VAS scale.

Discussion and Conclusion: Although all the three interventions groups were effective in the improvement of cellulite, as expected from previous works described in the literature, (2) only the ultrasound group was statistically different from control. These preliminary results point to the need of a new study using a higher number of participants and the same methodology.

References

- 1 Misbah H, Sadick, MD and all, Treatment of cellulite Part I. Pathophysiology, Journal of the American Academy of Dermatology, 2010, 62, 3, 361-370
- 2 Misbah H, Sadick, MD and all, Treatment of cellulite Part II: Advances and controversies, Journal of the American Academy of Dermatology, 2010, 62, 3, 373-384