

EFFICACY AND DURABILITY OF ENDERMOLOGIE® IN THE TREATMENT OF CELLULITE: ADDITIONNAL IMPROVEMENT OF THE RESULTS WITH A FOLLOW-UP TREATMENT

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The LPG® Technique (Endermologie® in Aesthetic field) has clinical efficacy in cellulite and body contouring linked to its circulatory, anti-edematous and dermatrophic properties well documented^{1,2,3,4,5,6,7,8,9} which contribute to its international notoriety. Using several high-tech means of investigation and reliable clinical measurements, a study has been conducted in order to precisely quantify the efficacy and durability of Endermologie® in the treatment of cellulite: the latest generation of device, the Cellu M6®Keymodule I, representing a more sophisticated means of skin mechanization, has been used in order to get optimal benefits. The study has been carried out in the Department of Pr Ortonne (Nice, France) after approval of Ethical Committee.

30 women from 23 to 54 years old with grade II cellulite and who fulfil rigorous inclusion/exclusion criteria, completed 16 sessions with Cellu M6®Keymodule i (2 sessions per week, 35 minutes duration/session). At the end of the 16 sessions, patients were randomly allocated into 3 groups for 6 months maintenance treatment (0 session/ month, 1 session/ month or 2 sessions/month – respectively group 0, 1, 2). Evaluation including circumference and cutaneous fold measurements, sonography 20MHz, image analysis of cutaneous prints, macrophotographies (x20), standardized photographs and self questionnaires, were carried out at W0 (before treatment), W4 (after 8 sessions) W8 (at the end of the 16 sessions) and after 6 months of follow-up treatment (W32).

All results showed a significant improvement with a duration-dependent effect from W0 to W8. Particularly, at mid-treatment (W4), mean reduction for cutaneous fold thickness, dermo hypodermal interface length and dimpled skin surface is strictly half of those obtained at W8. At 6 months and in comparison with W8, follow-up treatment showed 100 % sustained effect for group 0. For groups 1 and 2, an additional effect is observed with a better improvement for group 2 regarding thigh circumference, dermo hypodermal interface length and dimpled skin surface (additional reduction near 40%).

In conclusion, this study confirms the duration-dependent effect of the Technique not only on circumference body measurements already noticed in previous studies but also on cutaneous fold, dermo hypodermal interface length and dimpled skin surface measurements. Furthermore, it shows a 100% sustained effect at 6 months and underlines the interest of a follow-up treatment (2 sessions/month) which greatly improves initial effect of 16 sessions.

1. Bartolo MA., Allegra C. Exploration microlymphographique chez des sujets traités par Technique LPG® et présentant une phlébopathie fonctionnelle constitutionnelle. XIVth World Congress UIP (Union Internationale de Phlebologie), Sept. 9-14, 2001, Rome.
2. Watson J. , Fodor PB., Cutcliffe B., Sayah D., Shaw W. Physiological Effects of Endermologie®: a preliminary report. *Aesthetic Surg J* 1999, 19 (1) ; 27-33
3. Adcock D., Bruce Shack R.et al. – « Analysis of the cutaneous and systemic effects of Endermologie® in the porcine model » *Aesthetic Surg J* 1998, 18(6); 414-422.
4. Innocenzi D., Balzani A., Montesi G., La Torre G., Tenna S., Scuderi N., Calvieri S. Evidenza delle modificazioni cutanee indotte dalla Tecnica LPG® mediante analisi d'immagine. *DermaCosmetologia*- anno II- numero 1- gennaio-marzo 2003, p.9-15.
5. Innocenzi D., Balzani A., Panetta C., Montesi G., Tenna S., Scuderi N., Calvieri S. Alterazioni morfologiche della cute indotte con la Tecnica LPG®. *DERMOtime* Settembre-Ottobre 2002, anno XIV, n°7/8 ; p. 25-27.
6. Daver J.-Une nouvelle méthode instrumentale du traitement de la cellulite. *Médecine au féminin*, n° 39, 1991, 25-34
7. Chang P, Wiseman F, Jacoby T, Salisbury AV, Ersek RA. Noninvasive mechanical body contouring: (Endermologie) a one year clinical outcome study update. *Aesth. Plast. Surg.* 1998, 22:145-153.
8. Dabb RW. A combined program of small-volume liposuction, Endermologie, and nutrition: a logical alternative. *Aesthetic Surg. J.* 1999 Sept/Oct., 19 (5) ; 388-93.
9. La Trenta G., Mick SL. Endermologie® after External Ultrasound-Assist Lipoplasty (EUAL) versus EUAL alone. *Aesthetic Surg J* 2001, 21 (2) ; 128-36.