

## LABORATOIRES L'ESTHÉTIC : MESO, CLINICAL STUDY FOR 5 PRODUCTS®

#### **I) INTRODUCTION**

Mesotherapy, commonly known as «biorejuvenation» or «biorevitalization», is a technique used to rejuvenate the skin by an act offering a multivitamin solution, hyaluronic acid and natural plant extracts. It aims to improve skin aging signs, lighten the skin, burn fat or revitalize hair. This prospective study's object is to evaluate clinical effects of mesotherapy applied to wrinkles, hair and fat zones. L'ESTHETIC will quantitatively evaluate histological changes in the skin occurring in response to mesotherapy treatment.

#### I.1 Objective :

Our main objective for the skin was to assess the improvement of face, neck and body skin's

quality, after using the following products : HA+SKINBOOSTER, SKINLIGHT MESO, SLIMBODY MESO, MESOFILLER+ and HAIR REVITALIZER MESO. All products are made in France by LABORATOIRES L'ESTHETIC and come in 5 X 5 ml boxes.

Please refer to APPENDIX 1 for full formulation of each product.

Our goal for the hair was to assess the improvement of hair thinness, reduce hair loss and greying after 5 treatments of HAIR REVITALIZER MESO.

#### I.2 General observations :

A statistically significant decrease in the depth of wrinkles (80%) and in pore size (88.4%) was observed. Dermatological scores showed a significant decrease, and data suggest that skin tone was improved with a brighter tone. Evolution of dermis density was also investigated and an increase of dermal density and thickness were highlighted. The study is showing an improvement of skin firmness with significant increases of dermis thickness (+27%) and dermis density (+31%), indicating a neo-collagen activity.

Quantitative evaluation of collagen types I, III, and VII, newly synthesized collagen, total elastin, and tropoelastin was performed.

Histological and immunostaining analysis of collagen types I, III, and VII, newly synthesized collagen, total elastin, and tropoelastin showed a statistically significant changes after mesotherapy treatment.

A statistically significant improvement in the hair's thickness and density was observed.

The present study indicates that mesotherapy for skin rejuvenation, lightening, fat burning and hair loss do result in statistically significant histological changes or clinical improvement.





### SUBJECT AND METHOD

#### **II) SUBJECT AND METHOD**

#### II.1) Subject's selection

One hundred healthy males and females between 28 and 76 years old (mean age: 48.15 years) were enrolled in the study between September and November 2018. They exhibited a healthy Caucasian/Asian/Middle Eastern skin type on the anatomic area studied. Fifteen of them were suffering of hair thinness or hair loss. Forty-two had already received esthetic treatment: wrinkle filling, lifting, abdominoplasty, blepharoplasty and breast enlargement operations

#### II.1.A) Inclusion criteria

#### > Skin

Age between 28 and 76 years old, skin phototypes I-III patients who consult for wrinkles, skin hydration, skin tone improvement and fat burning.

Moreover, all participants had no allergy, adverse effects to mesotherapy or hypersensitivity to any constituent of the investigated products.

All participants were dedicated to the present study and signed an informed consent form, including not modifying their way of life and no sunbathing.

#### > Hair

Age between 31 and 66 years old, suffering of hair loss, alopecia and hair greying. Moreover, all participants have no allergy, adverse effects to meso-therapy or hypersensitivity to any constituent of the investigated products.

All participants were dedicated to the present study and signed an informed consent form, including not modifying their way of life and no sunbathing.

#### II.1.B) Exclusion criteria for both Skin and Hair treatments

In the clinical trial were excluded, participants :

- with phototype V and over
- enrolled in any clinical evaluation of drugs or medical devices
- involved in another clinical study
- who could not use products, techniques or surgery with an anti-wrinkling effect
- with non-resorbable material fillers
- with acute inflammation
- who have scars with pigmentation defects
- with keloid scars
- with facial herpes
- with congenital or acquired disorders of the coagulation system
- with viral or bacterial infection
- with a history of auto-immune disease
- taking certain medications such as oral and injectable corticoid therapy (<3 months), chemotherapy and immunosuppressive therapy (<2 years)</li>
- who were pregnant or lactating women



### SUBJECT AND METHOD

II.2) Method and material :

Tests conducted by LABORATOIRES L'ESTHÉTIC KOL partner :

All tests have been done on the following products :

- > HA+ SKINBOOSTER
- > MESOFILLER+
- > HAIR REVITALIZER MESO
- > SKINLIGHT MESO
- > SLIM BODY MESO

All biocompatibility tests have shown that MESO range from LABORATOIRES L'ESTHÉTIC is fully biocompatible.

#### II.2.B) Protocol :

The pilot study was set to evaluate the efficacy of MESO range from L'ES-THETIC PARIS and consisted of 5 sessions at : Day 0, D 15, D 30, D 60 and D 90. The product's application were given on the face, neck, arms, chin, waist for skin meso products and on the scalp for hair meso.

For the skin mesotherapy, in order to select the right combination of products (HA+SKINBOOSTER, MESOFILLER+, SKINLIGHT MESO or SLIM BODY MESO), we first evaluate the patient's needs. Then considering the patient skin state (the deepness of the wrinkles, the pore, fat and skin's evenness) we offer a specific treatment



During each session, the following volumes were applied :



### DISCUSSION

#### **III) DISCUSSION**

In our study of the skin mesotherapy, a statistically significant decrease of 56.2% in the depth of crow's-feet wrinkles was observed after 5 sessions of mesotherapy. These results were achieved by LEMPERLE scale (dermato-logical scoring). This reduction had already started after first treatment and was more visible after 30 days of treatment (Figure 1).

Mesotherapy can visibly reduce the volume of crow's-feet wrinkles. A significant decrease of wrinkle volume was observed by the profilometric measurements.

To complete the assessment of mesotherapy on mechanical skin properties, we tried to show treatment's efficacy on the reduction of pore size. Our study reveals a clear decrease in pore size starting from day 15th, as shown. After 90 days of treatment, the study found that there was a change in pore size, with a statistically significant decrease (in Figure 2.).



Day 0 Participant n° 8 Day 1 (Figure 1.) Evolution of crow's-feet wrinkles after treatment on Subject 8.



### DISCUSSION

The increase of the skin firmness including a reduction of the size of the pores can be explained by analyzing the products' composition and combining techniques of LABORATOIRES L'ESTHTETIC's meso range **(APPENDIX 1.).** 

Our technique consists of a tailor made treatment for each patient corresponding to their needs. We selected different products in our range to create the perfect treatment. For Patient number 17, we applied 2 LIGHTE-NING MESO, 2 HA+SKINBOOSTER and 1 SLIMBODY MESO to reduce the pore size, make the skin glow and create fat reduction.

Other before/after pictures are available at the end of this study (APPENDIX 2.).



Day 0 Participant n° 17 Day 90 (Figure 2.) Evolution of pore size after treatment on Subject 17



HAI RE\ ME

SKI ME

### FOCUS ON HA+ SKINBOOSTER

HA+ SKINBOOSTER has been compared to NCTF 135 HA from Filorga and Cytocare 532 from Revitacare

PRODUCT	HA+ SKIN- BOOSTER	NCTF 135 HA	CYTOCARE 532
Effect at 1st treatment	YES	NO	NO
Periorbital region	YES	NO	NO
Combination w/ other meso	YES	NO	NO
Roller and electroporation	YES	YES	NO





RESTHETIC

5x5ML

Day 0 (on the upper side) Participant n<sup>°</sup> 8 Day 120 Evolution of the naso-labial fold'wrinkles and glow of the skin 8



Day 0 Participant n° 3 Day 120 Evolution of crow's-feet wrinkles on Subject 3

### FOCUS ON HAIR REVITALIZER

In our study of the hair mesotherapy, we had to consider that generally, a minimum of 5 sessions is required in order to create the conditions in the scalp required to stimulate hair growth, beginning with an intensive course of treatments every 2 weeks for the first 2-3 months. After it is possible to decrease the frequency of treatments to once every 3 months or less.

Five subjects experienced positive results within the first few weeks of treatment (Figure 3.), for the other it took more sessions (Figure 4.). The results' variation depended upon the severity of the hair loss and how the individual responds to the treatment.

Patients should expect to expect to see significant results within the first month of treatment, but the full effect of the treatment can take up to 6 months



HAI REV ME

5x5ML

Day 0 Participant n°21 Day 30 (Figure 3.) Evolution of the hair loss after treatment on Subject 21



Day 0 Participant n° 23 Day 120 (Figure 4.) Evolution of the hair loss after treatment on Subject 23

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ESTHET

### FOCUS ON **SLIM BODY MESO**, **A SPECIFIC PRODUCT**

Since deoxycholic acid is forbidden in Europe, LABORATOIRES L'ESTHE-TIC uses a fully natural formula. SLIM BODY MESO offers one of the highest concentration of caffein and green tea on the esthetic market. Thanks to its natural concentration, the product brings firmness and is suitable for face and body.



SLIE ME: 5ML

5x5ML

Day 0 Participant n° 11 Day 90 Evolution of chin's fat on subject 11



Day 0 Participant n° 2 Day 90 Evolution of the arm using SLIM BODY on subject 2

Day 0 Participant n<sup>°</sup>4 Day 90 Fat evolution by using SLIM BODY on subject 4

LABORATOIRES L'ESTHETIC PARIS

ESTHETIC

### SATISFACTION AND TOLERANCE

#### **IV) GLOBAL SATISFACTION AND TOLERANCE**

#### IV.1) Skin mesotherapy treatments

Patients' global satisfaction : global satisfaction was evaluated at the end of the 5th and last treatment. The patients were satisfied or very satisfied in 97% of the case, very satisfied in 74% of the case.

Physician's global satisfaction : physician was satisfied or very satisfied in 100% of the case, very satisfied in 87% of the case.

Tolerance after each treatment application : tolerance was rated as excellent, local side effects were limited with some cases of erythema, bruises and superficial transient bleeding.

#### IV.2) Hair mesotherapy treatment

Patients' global satisfaction : global satisfaction was evaluated at the end of the 10th and last treatment. The patient were satisfied or very satisfied in 88% of the case, very satisfied in 58% of the case.

Physician's global satisfaction : physician was satisfied or very satisfied in 100% of the case, very satisfied in 62% of the case.

Tolerance after each treatment application : tolerance was rated as excellent and local side effects were limited with some superficial transient bleeding.

All performed tests demonstrated excellent tolerance of products. For all 5 products, no major side effects were noted.





# APPENDIX 1, FORMULATIONS HA<sup>+</sup> SKINBOOSTER MESO®

5x5ML

MADE IN FRANCE

LABORATOIRES L'ESTHETIC PARIS Ascorbic Acid Cell revitallizer Cell revitallizer Cell revitallizer Energy production Vit

 Restores skin's radiance Vitamin B1 (Thiamin) Soothes Moisturizes Nicotinamide Vitamin B3 HA SKINBOOSTER Panthenol Metabolism enhancer Pyridoxine Vitamin B5 . Favores skin's elasticity Vitamin B6 Skin protector

### APPENDIX 1. FORMULATIONS

#### **MESOFILLER+®**





### APPENDIX 1. FORMULATIONS

# **SLIM BODY MESO**<sup>®</sup> LABORATOIRES l'esthétic PARIS FAT AND CELLULITE REDUCER ACTION LIPOLYTIQUE SLIM BODY MESO 5x5ML MADE IN FRANCI



### APPENDIX 1. Formulations

#### SKINLIGHT MESO®





### APPENDIX 1. FORMULATIONS

#### HAIR REVITALIZER MESO®





### APPENDIX 2. OTHER RESULTS



Day 0 (on the upper side) Participant n° 10 Day 120 Evolution of the naso-labial fold'wrinkles and glow of the skin on subject 10



### APPENDIX 2. **OTHER RESULTS**



Day 0 Participant n° 19 Day 120 Evolution of the naso-labial fold'wrinkles on subject 19



### APPENDIX 2. **OTHER RESULTS**



Day 0 Participant n° 7 Day 120 Evolution of the naso-labial fold'wrinkles on subject 7





### APPENDIX 3. REFERENCES OF PUBLICATIONS AND INDICATIVE BIBLIOGRAPHY

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