



**MULTICENTER CLINICAL AND INSTRUMENTAL
STUDY FOR THE EVALUATION OF EFFICACY
AND TOLERANCE OF AN INTRADERMAL
INJECTABLE PRODUCT AS A FILLER AND A
BIOREVITALIZER FOR THE AGING FACE**



PURPOSE

Aim of the study was to evaluate clinically (by different Centers) and by non-invasive instrumental evaluations (by DermIng) the tolerance and the efficacy on aging face, as a “long-term action” filler and a biorevitalizer, of an intradermal injectable product associated with standard cosmetic treatment and food supplement.

113 female healthy volunteers, age-range:35-60years, with low-moderate skin ageing/photoageing, were included.

The study duration was 22 weeks; during this period 4 intradermal implants with the injectable study product were performed.

It was also aim of the study to evaluate treatment efficacy by volunteers’ judgment



STUDY DESIGN

Three evaluation visits were performed during the treatment: at baseline (T0), 1 month after the last intradermal implant (T1) and 4 months after the last intradermal implant (T4). During these visits the following evaluations were performed:

- clinical assessment (all Centres)
- skin replicas (at the level of nasolabial folds left or right randomly)
- photographic documentation (frontal and profile pictures)



TREATMENT DESIGN

- *Food supplement:* subjects took 1 Pro-Glyme jar a day, in the morning, for a total of 6 weeks.
- *Cosmetic treatment:* Pro-Glyme cream was applied twice daily, while Pro-Glyme face mask was used twice weekly.
- *Intradermal implants:* 4 intradermal implants, with Jalu-Pro, were performed, once a week, directly by the dermatologist. The first one was performed 2 weeks after the basal visit (T0).



METHOD – VISUAL EVALUATION

(performed by all centers)

The following clinical evaluations (visual score) were performed on right or left face side according to a previously completed randomisation list:

- skin roughness (nasolabial folds and periorcular area according to reference photographic scales),
- skin smoothness (surface microrelief),
- skin tonicity
- skin brightness.

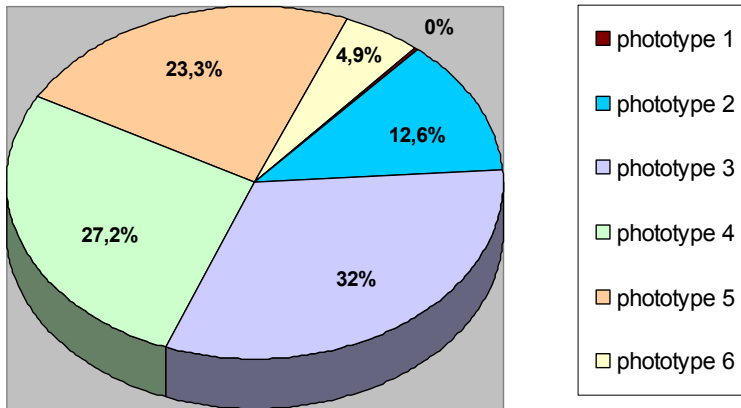


METHOD – INSTRUMENTAL EVALUATION (Dermlng)

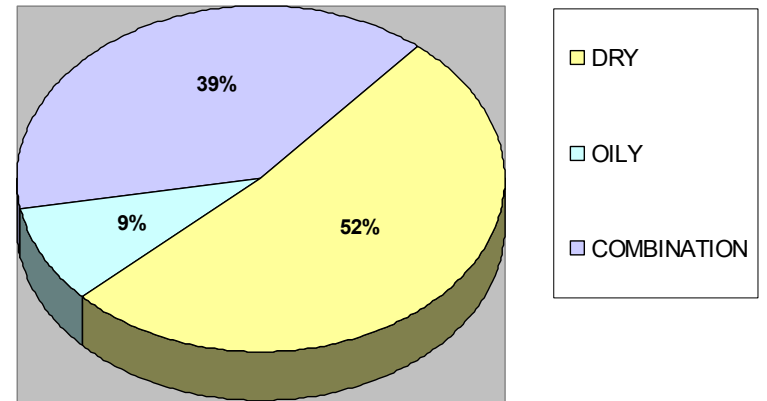
- Image analysis of skin replicas (optical profilometry)
Skin replicas were taken using Silicone rubber. Through a sophisticated computerised image elaboration it was possible to calculate the following profilometric parameters:
 - Ra= roughness average parameter which is the arithmetic mean of all ordinates from mean line of profile
 - Rt = maximum wrinkles depth
- Photographic documentation

VOLUNTEERS' SKIN CHARACTERISTICS

PHOTOTYPE (CESARINI'S CLASSIFICATION)

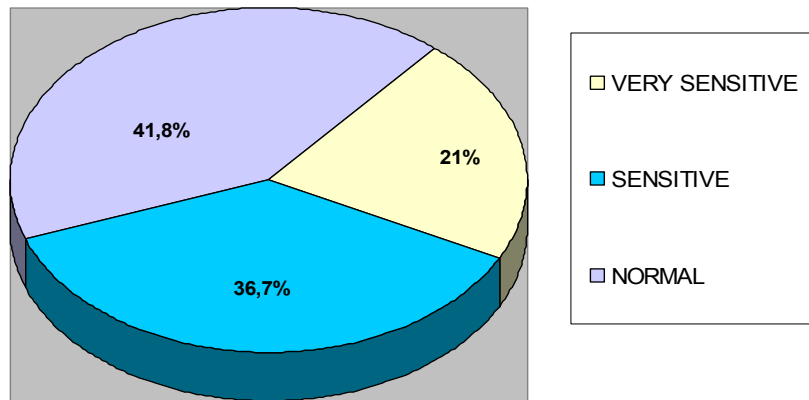


SKIN TYPE

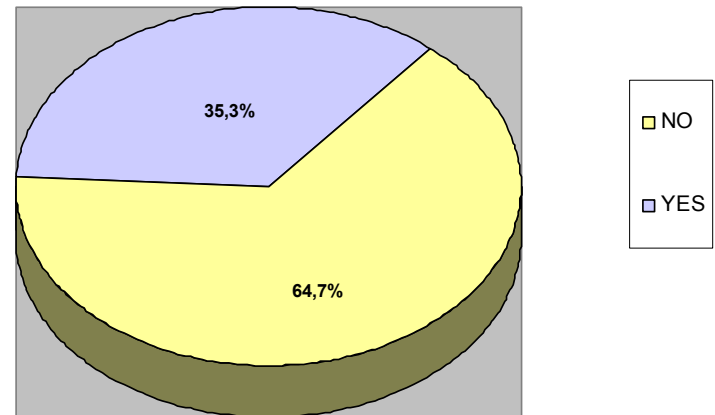


VOLUNTEERS' SKIN CHARACTERISTICS

SKIN SENSITIVITY

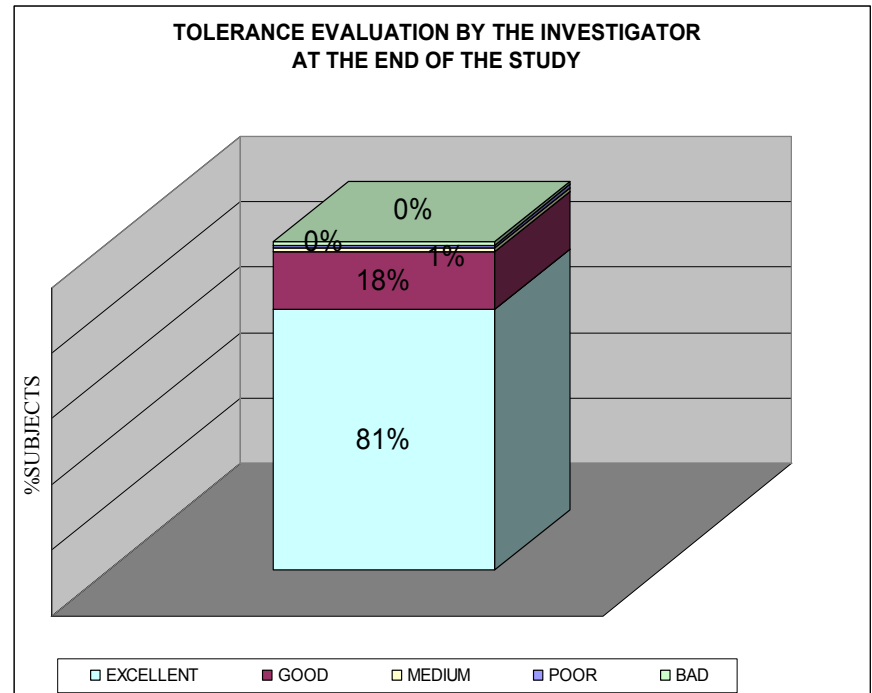


PREVIOUS INTRADERMAL IMPLANT



RESULTS - TOLERANCE

Tolerance of the tested products was very good and **no** adverse event occurred during the study period. Clinical evaluations performed during the entire treatment period demonstrated the absence of relevant clinical signs as erythema, oedema, papules, pustules or other symptoms.



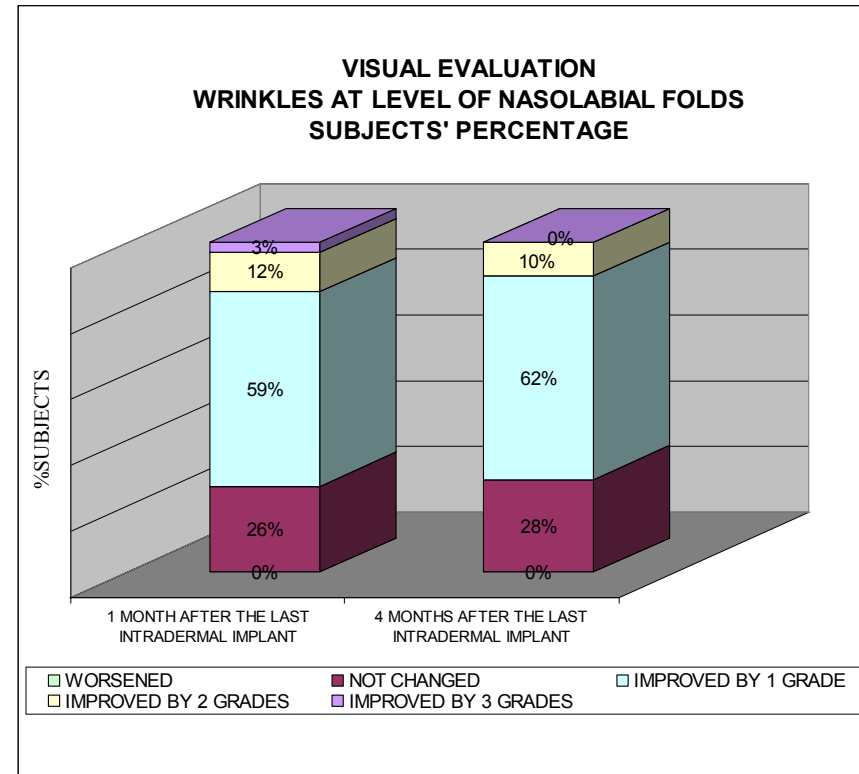
RESULTS – LONG ACTION FILLER

EFFICACY

CLINICAL EVALUATION (performed on 97 subjects)

The filling efficacy evaluation was performed on the data regarding clinical score of nasolabial folds, since this skin area was effectively treated in all included subjects.

1 month after the last intradermal implant (T1) a significant and important improvement of nasolabial folds (Wilcoxon test $p < 0.001$) was obtained and this result was even higher at the end of the study.

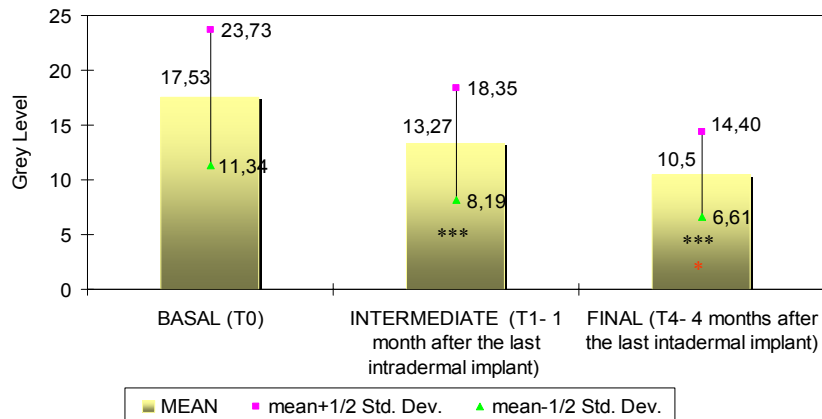


RESULTS - LONG ACTION FILLER

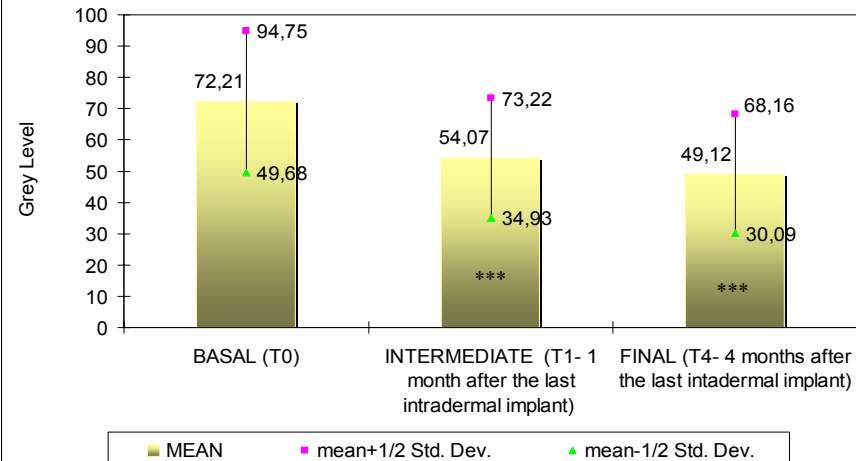
EFFICACY

INSTRUMENTAL EVALUATIONS (performed on 21 subjects)

PROFILOMETRY: NASOLABIAL FOLDS
Ra (roughness average parameter)



PROFILOMETRY: NASOLABIAL FOLDS
Rt (maximum wrinkles depth)



Statistical analysis :

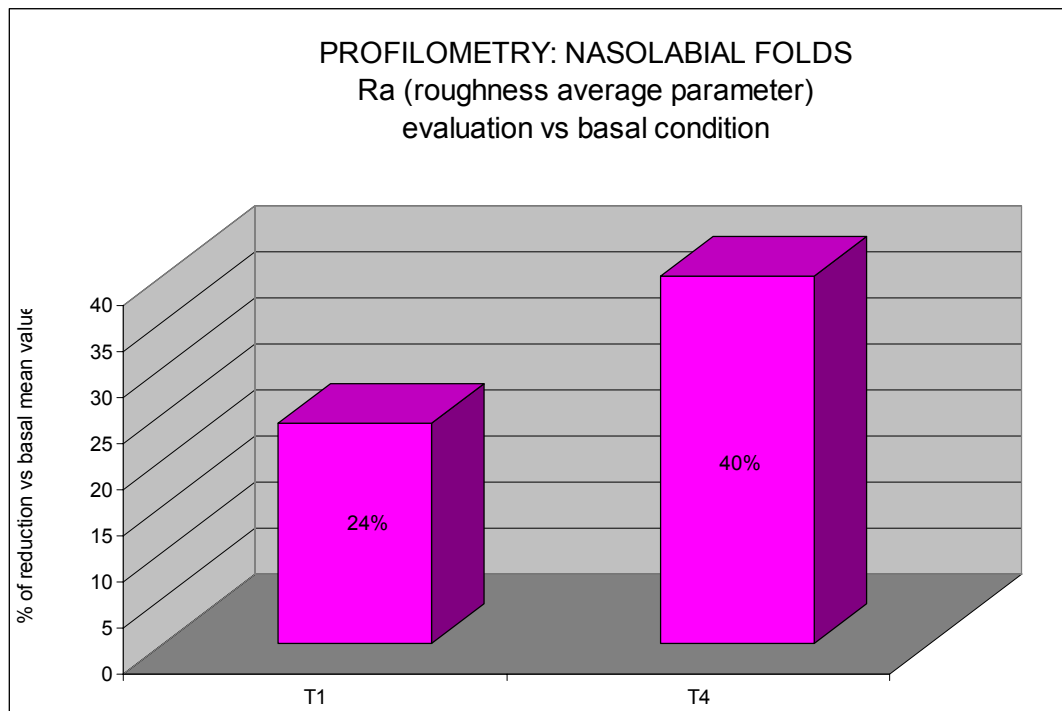
Student t test *** $p < 0,001$ vs T0

* $p < 0,05$ vs T1 *** $p < 0,001$ vs T1

RESULTS - FILLING EFFICACY

EVALUATION OF INJECTABLE PRODUCT

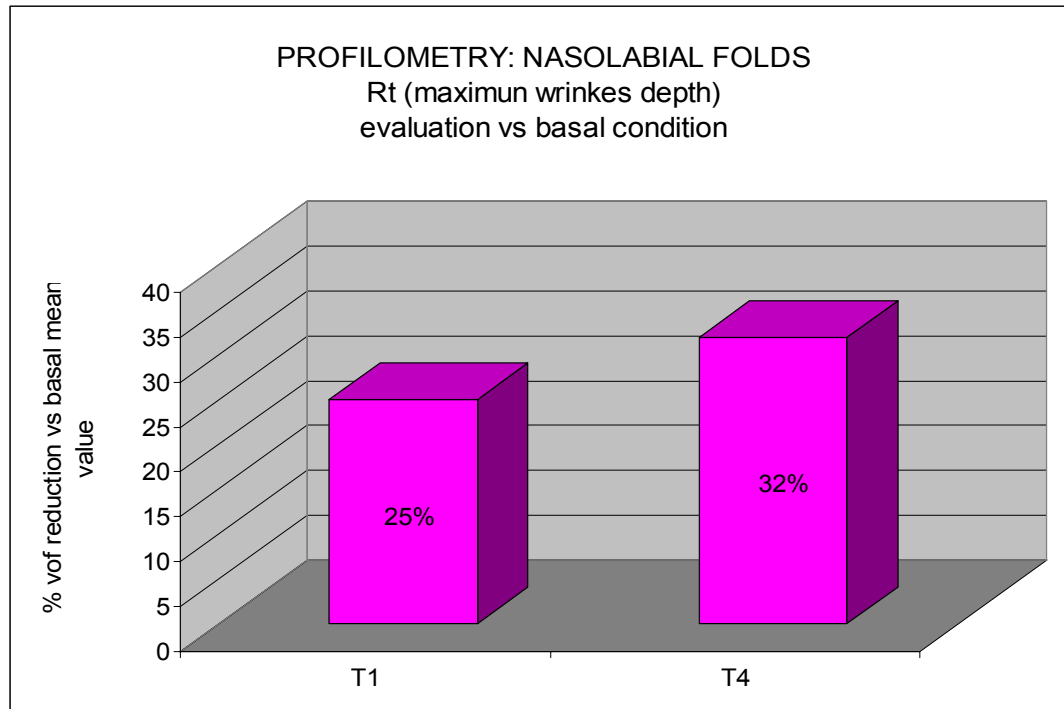
■ INSTRUMENTAL EVALUATIONS (performed on 21 subjects)



RESULTS - FILLING EFFICACY

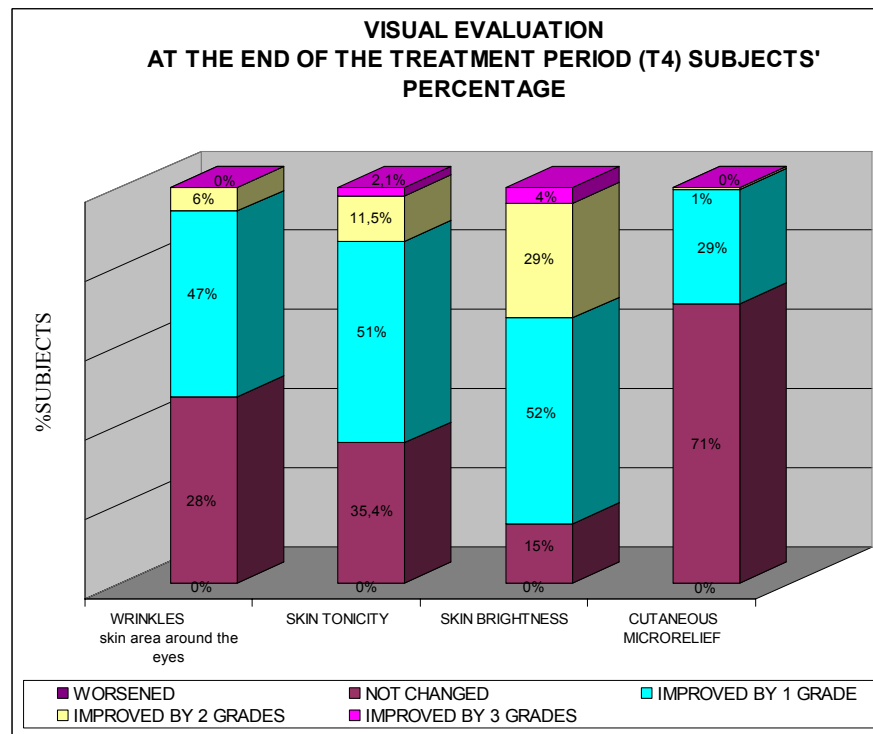
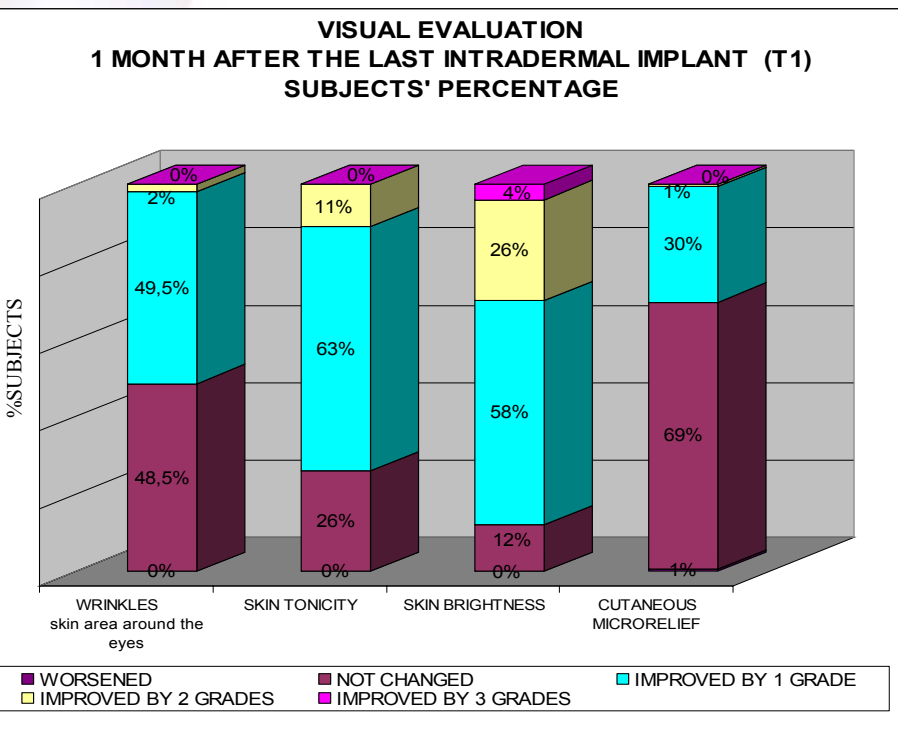
EVALUATION OF INJECTABLE PRODUCT

■ INSTRUMENTAL EVALUATIONS (performed on 21 subjects)



RESULTS - BIO-REVITALIZING EFFICACY EVALUATION OF THE STUDY TREATMENT

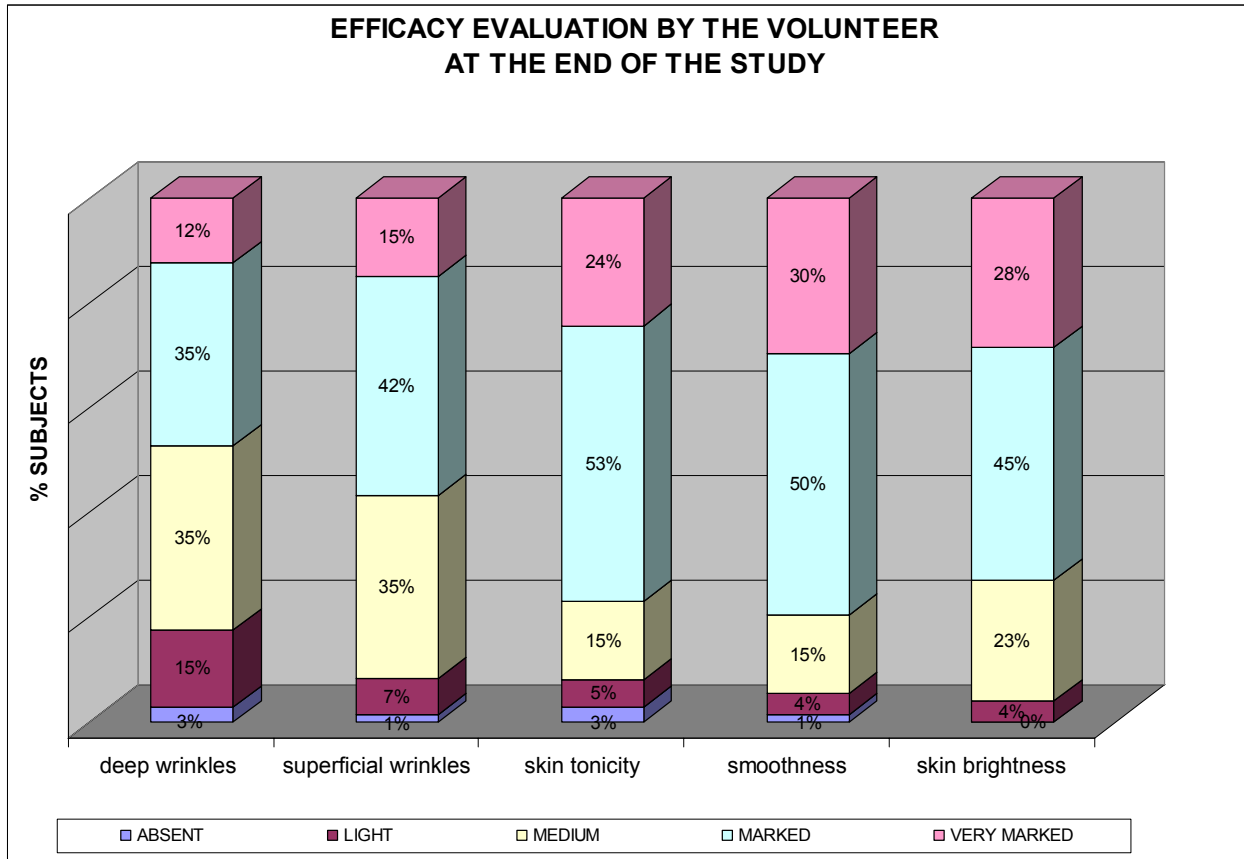
CLINICAL EVALUATION (performed on 97 subjects)



Wilcoxon test $p < 0.001$ T0 vs T1 and T0 vs T4 for all considered visual scores

RESULTS - VOLUNTEER'S EFFICACY

JUDGMENT (performed by 97 subjects)



Statistical analysis: Friedmann test $\chi^2 = 39.83$ $p=0$



DISCUSSION (1)

- The study treatment “Jalu-pro+Pro-Glyme”, determined a very statistically significant reduction of skin roughness evaluated both clinically and instrumentally; in particular profilometric parameters were significantly decreased after 1 month and dramatically decreased after 4 months.



DISCUSSION (2)

- Clinical evaluations underlined how the study treatment determined, 1 month after the last intradermal implant (T1) and moreover at the end of the study (T4), a statistically significant improvement of principal skin aging/photoaging signs as wrinkles (>70% of cases), skin tonicity (>70%), brightness (>85%) confirming the biorevitalizing efficacy.



DISCUSSION (3)

- Auto-evaluations by the subjects underlined how the study treatment determined, at the end of the study, a statistically significant improvement of all the considered symptoms: deep wrinkles (82% of cases), superficial wrinkles (92%), skin tonicity (92%), skin smoothness (95%), skin brightness (96%) confirming the self-perception of the improvement.



STUDY EXTENTION

The encouraging obtained results led us to extend the study for the volunteers enrolled at Derming; in particular only an additional intradermal implant with “JALUPRO®” was performed at T4 and, after 2 months (T6 months) the clinical and instrumental evaluations were done.

Statistical analysis was performed comparing T6 data of clinical and instrumental evaluations with T4.

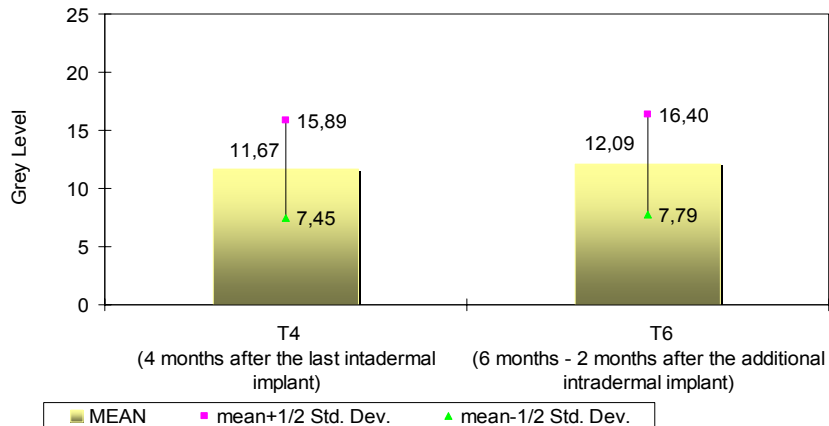
The study extension was conducted on 14 volunteers from main study.

STUDY EXTENTION - RESULTS

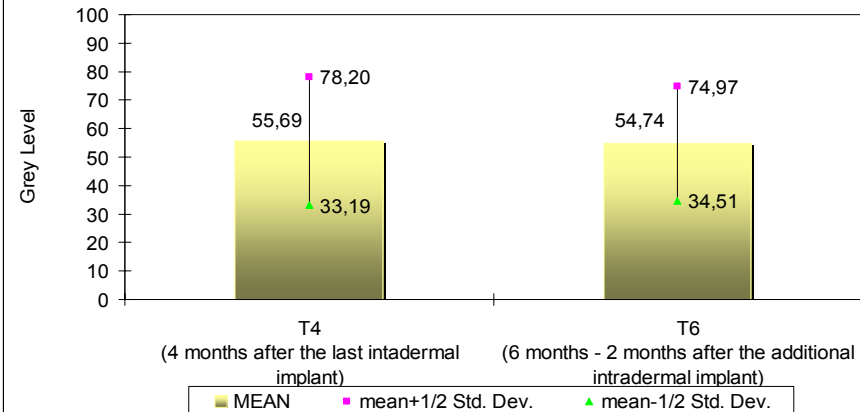
FILLING EFFICACY EVALUATION OF INJECTABLE PRODUCT

INSTRUMENTAL EVALUATIONS - T6 vs T4 (performed on 13 subjects)

PROFILOMETRY: NASOLABIAL FOLDS
Ra (roughness average parameter)



PROFILOMETRY: NASOLABIAL FOLDS
Rt (maximum wrinkles depth)





STUDY EXTENTION - RESULTS

For all considered parameters, results obtained on the comparison between T6 and T4 data did not show any statistical significant variation. The bio-revitalizing activity of the study treatment was still present at T6, although during this period (from July to September 2005) all subjects did expose themselves to important sun irradiation and did not assume the complete treatment (cream + food supplementation)

PHOTOGRAPHIC DOCUMENTATION

Volunteer n. 12



BASAL (T0)



T1 INTERMEDIATE VISIT
(1 month after the last intradermal implant)



T4 FINAL VISIT
(4 months after the last intradermal implant)



T6 ADDITIONAL VISIT
(6 months-2 months after the additional intradermal implant)

PHOTOGRAPHIC DOCUMENTATION

Volunteer n. 20



BASAL (T0)



T1 INTERMEDIATE VISIT
(1 month after the last intradermal implant)



T4 FINAL VISIT
(4 months after the last intradermal implant)

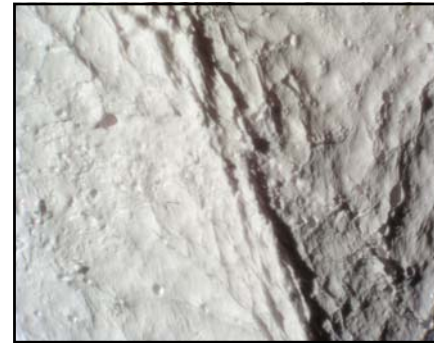
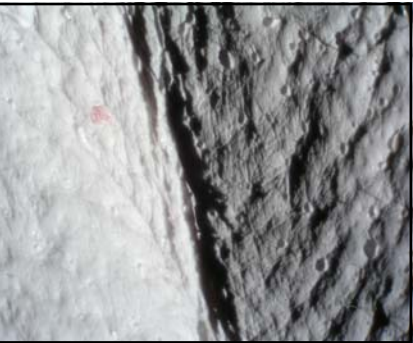


T6 ADDITIONAL VISIT
(6 months-2 months after the additional intradermal implant)

PHOTOGRAPHIC DOCUMENTATION

Nasolabial folds replicas

Volunteer n. 1



BASAL (T0)

T1 INTERMEDIATE VISIT
(1 month after the last intradermal implant)

T4 FINAL VISIT
(4 months after the last intradermal implant)

T6 ADDITIONAL VISIT
(6 months-2 months after the additional intradermal implant)

PHOTOGRAPHIC DOCUMENTATION

Nasolabial folds replicas

Volunteer n. 19



BASAL (T0)

T1 INTERMEDIATE VISIT
(1 month after the last intradermal implant)

T4 FINAL VISIT
(4 months after the last intradermal implant)

T6 ADDITIONAL VISIT
(6 months-2 months after the additional intradermal implant)

PHOTOGRAPHIC DOCUMENTATION

Nasolabial folds replicas

Volunteer n. 20



BASAL (T0)



T1 INTERMEDIATE VISIT
(1 month after the last intradermal implant)



T4 FINAL VISIT
(4 months after the last intradermal implant)



T6 ADDITIONAL VISIT
(6 months-2 months after the additional intradermal implant)



CONCLUSIONS

- The treatment demonstrated to exert excellent biorevitalizing efficacy significantly improving the main skin aging/photoaging signs. This efficacy increased over time (until 6 months)
- Treatment tolerance was very good; in fact no adverse event related to the study products occurred during the entire study period.