Efficacy Evaluation of VeCollal®

on Skin Conditions

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EVE Lab

Preface

The purpose of the study is to evaluate the efficacy of VeCollal® for skin condition via scientific validation.

Materials and Instruments

A. Product info:

1. Name:
   1.1 VeCollal® sachet (5 g/sachet)
   1.2 Placebo sachet
2. Dosage: 1 sachet/day

B. Subjects:

1. Number: Total 18 subjects (VeCollal® : Placebo = 10 : 8)
2. Inclusion criterion: Healthy adults between age 25-65 years old

C. Examination item & instruments:

1.1 Examination item: Collagen density

1.2 Instruments: DermaLab® USB – High Freq. Ultrasound Module (Cortex Technology, Denmark) (Figure 1)

2.1. Examination item: Texture, wrinkles, redness

2.2. Instruments: VISIA Complexion Analysis System (Canfield, USA) (Figure 2)

3.1 Examination item: Hydration

3.2 Instruments: Corneometer® CM825 (C+K electronic, Germany)

Figure 1. DermaLab® USB – High Freq. Ultrasound Module

Figure 2. VISIA Complexion Analysis System

Figure 3. Corneometer® CM825

Methods

A placebo-controlled trial was conducted. The subjects were informed to consume 1 sachet of the VeCollal® or placebo per day for 4 weeks. Each subject was required to undergo skin condition measurement at week 0 and week 4. Statistic method was student's t-test and when *p* value is less than 0.05 means significant difference.

Results

1. Skin collagen boosting efficacy

DermaLab® USB – High Freq. Ultrasound Module was utilized to measure skin collagen density. The higher the relative value, the greater the improvement. After consuming VeCollal® sachet for 4 weeks, the average value of skin collagen density was increased by 13.9% (Figure 4). The ratio of the subjects who had an effective improvement to the total participants was 70%. The improvement ratio of VeCollal® was higher than placebo group.

2. Skin smoothing efficacy

VISIA Complexion Analysis System was utilized to measure skin texture. Texture measures skin smoothness by identifying gradations in color from the surrounding skin tone, as well as peaks (shown in yellow) and valleys (shown in blue) on the skin surface that indicate variations in the surface texture. The lower the relative value, the greater the improvement. After consuming VeCollal® sachet for 4 weeks, the average value of skin texture was significantly improved by 15.8% (*, $p < 0.05$) (Figure 5). The ratio of the subjects who had an effective improvement to the total participants was 90%. The improvement ratio of VeCollal® was higher than placebo group.

3. Anti-wrinkles efficacy

VISIA Complexion Analysis System was utilized to measure skin wrinkles. Wrinkles are identified by their characteristic long, narrow shape. The green lines reflect the wrinkles that the computer used for analysis of wrinkle presence and depth. The lower the relative value, the greater the

improvement. After consuming VeCollal® sachet for 4 weeks, the average value of wrinkles was decreased by 14.1% (Figure 6). The ratio of the subjects who had an effective improvement to the total participants was 80%. The improvement ratio of VeCollal® was higher than placebo group.

4. Skin moisturizing efficacy

Corneometer® CM825 was utilized to measure skin hydration. The higher the relative value, the greater the improvement. After consuming VeCollal® sachet for 4 weeks, the average value of skin hydration was increased by 7.4% (Figure 7). The ratio of the subjects who had an effective improvement to the total participants was 80%. There was a significantly difference between VeCollal® and placebo group ($^{\#}$, $p < 0.05$). The skin moisturizing efficacy of VeCollal® was better.

5. Skin soothing efficacy

VISIA Complexion Analysis System was utilized to measure skin redness. The lower the relative value, the greater the improvement. After consuming VeCollal® sachet for 4 weeks, the average value of skin redness was significantly reduced by 16.3% (**, $p < 0.01$) (Figure 8). The ratio of the subjects who had an effective improvement to the total participants was 90%. The improvement ratio of VeCollal® was higher than placebo group.

Conclusion

The results were summarized in Table 1. As a consequence, VeCollal® has the potential on collagen boosting, anti-wrinkles, skin smoothing, moisturizing and soothing. In addition, all the subjects had no evidence on skin irritation, gastrointestinal discomfort and any other discomforts.

Table 1. Summary of the change rate on skin conditions after consuming placebo and VeCollal® sachet for 4 weeks.

Examination item	Placebo	VeCollal®
Collagen density	-9.2%	13.9%
Texture	-3.4%	-15.8%*
Wrinkles	-3.3%	-14.1%
Hydration	-1.8%	7.4%#
Redness	4.6%	-16.3%**

Compare with baseline: *, $p < 0.05$; **, $p < 0.01$;

Compare with placebo: #, $p < 0.05$

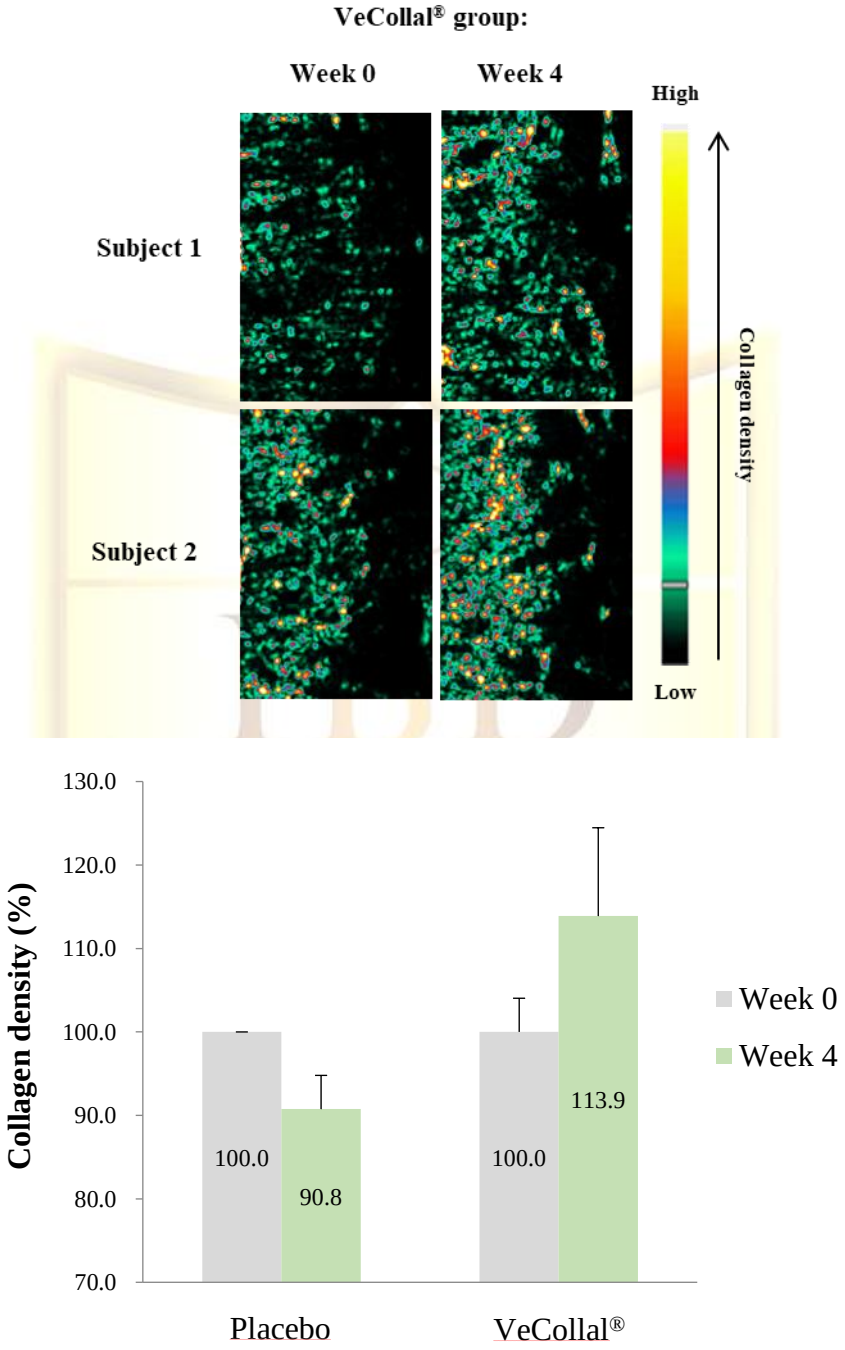
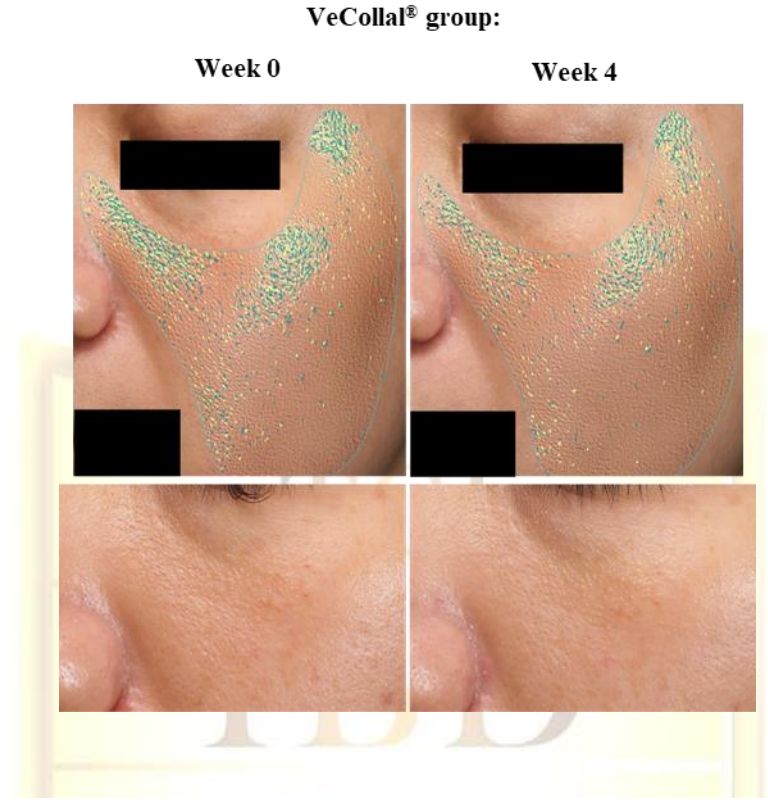


Figure 4. Skin collagen density of subjects before and after consuming VeCollal® or placebo sachet for 4 weeks.



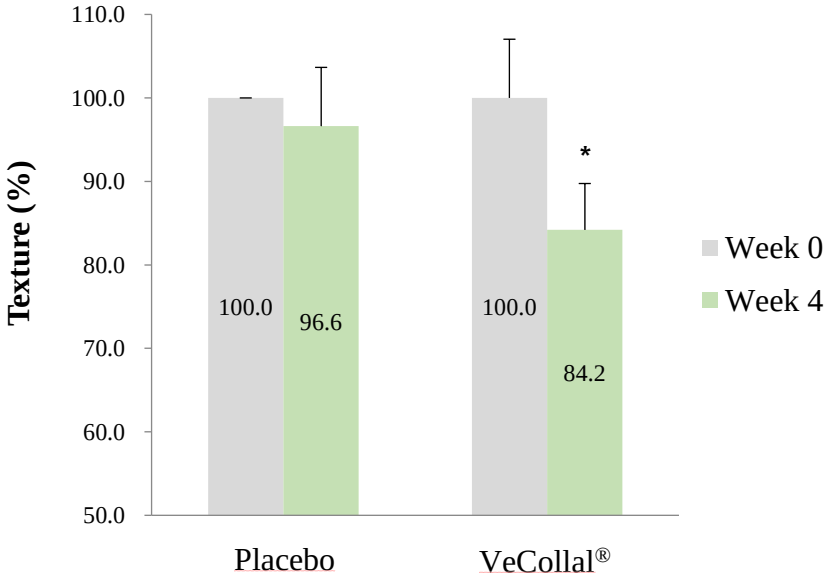


Figure 5. Skin texture of subjects before and after consuming VeCollal® or placebo sachet for 4 weeks (compare with baseline: *, $p < 0.05$).

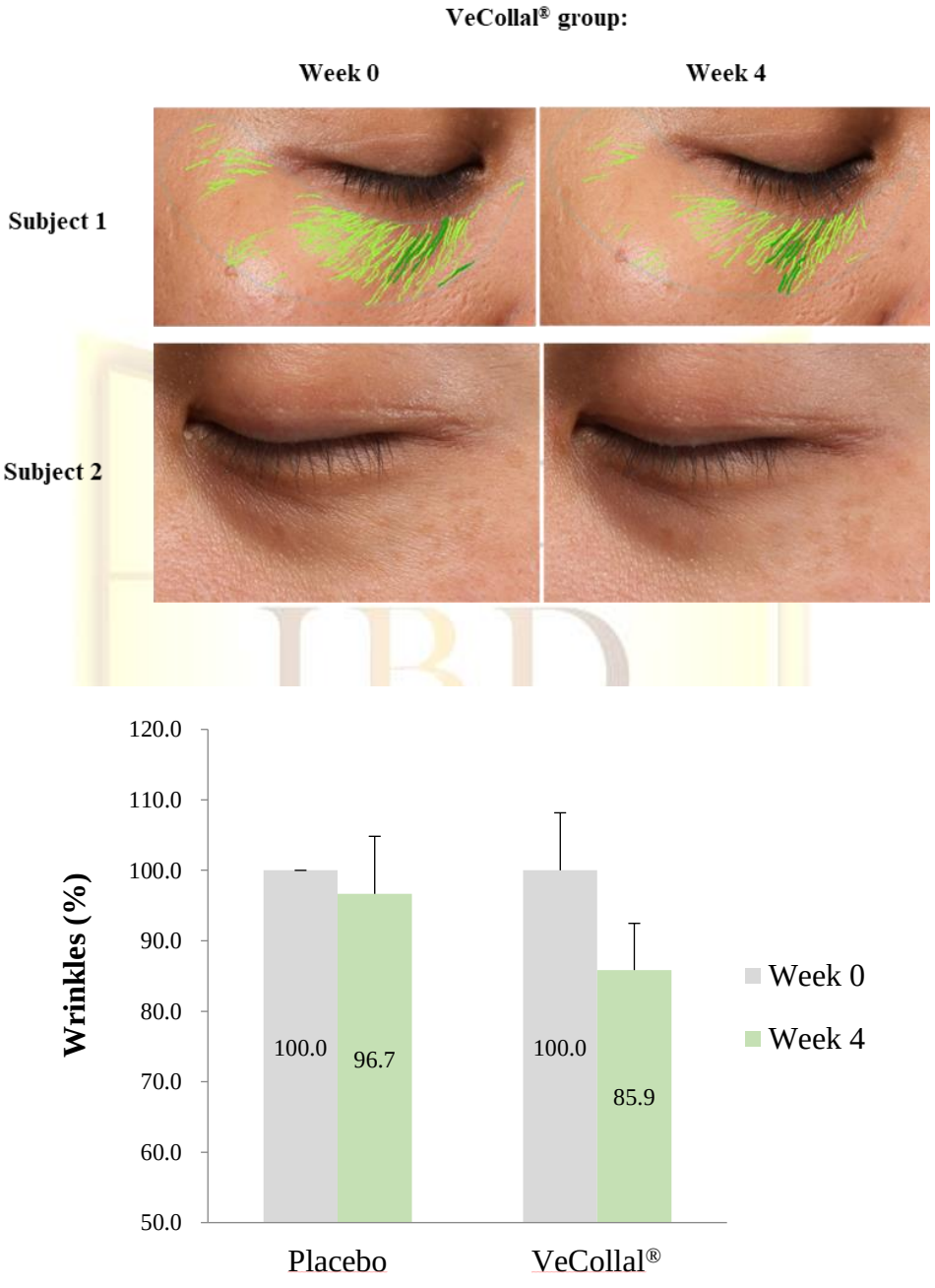


Figure 6. Skin wrinkles of subjects before and after consuming VeCollal® or placebo sachet for 4 weeks.

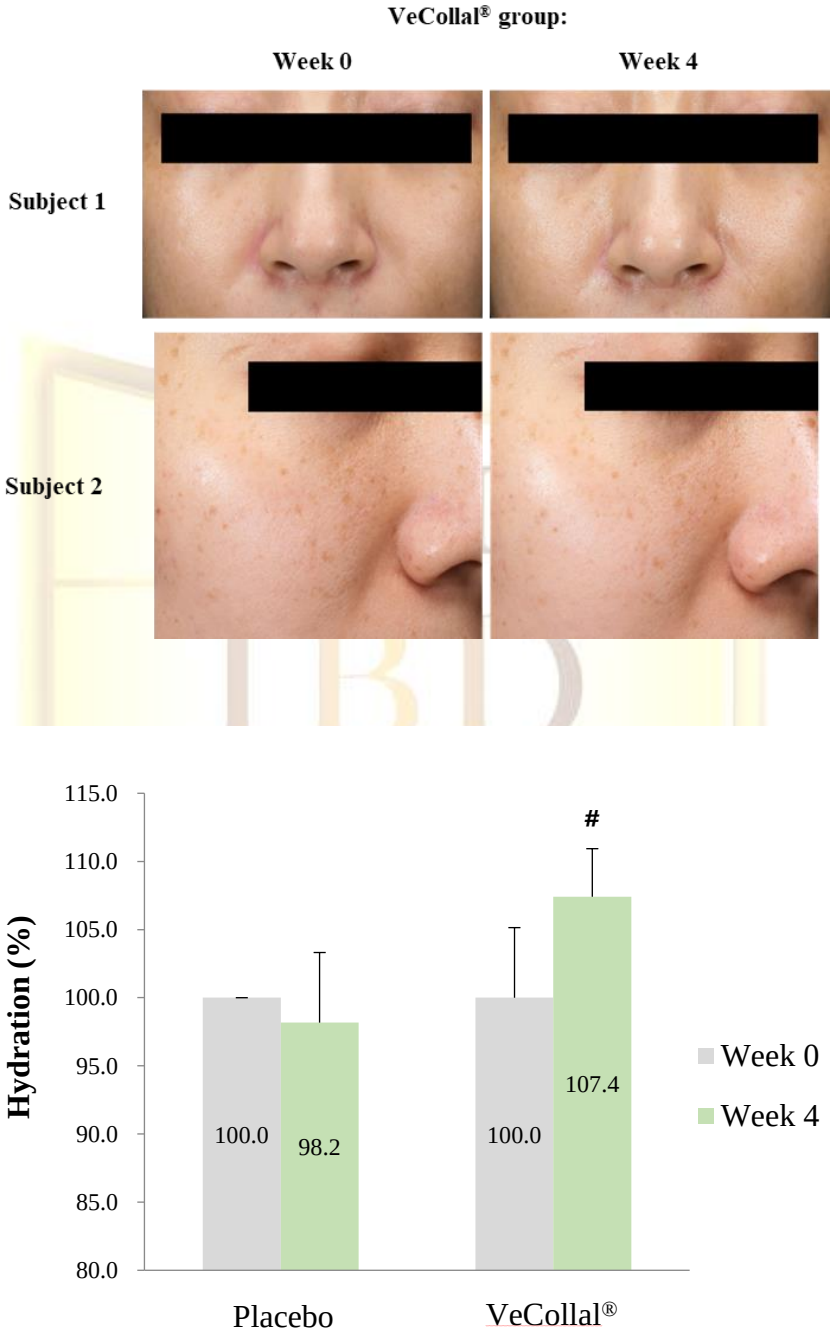


Figure 7. Skin hydration of subjects before and after consuming VeCollal® or placebo sachet for 4 weeks (compare with placebo: $^{\#}$, $p < 0.05$).

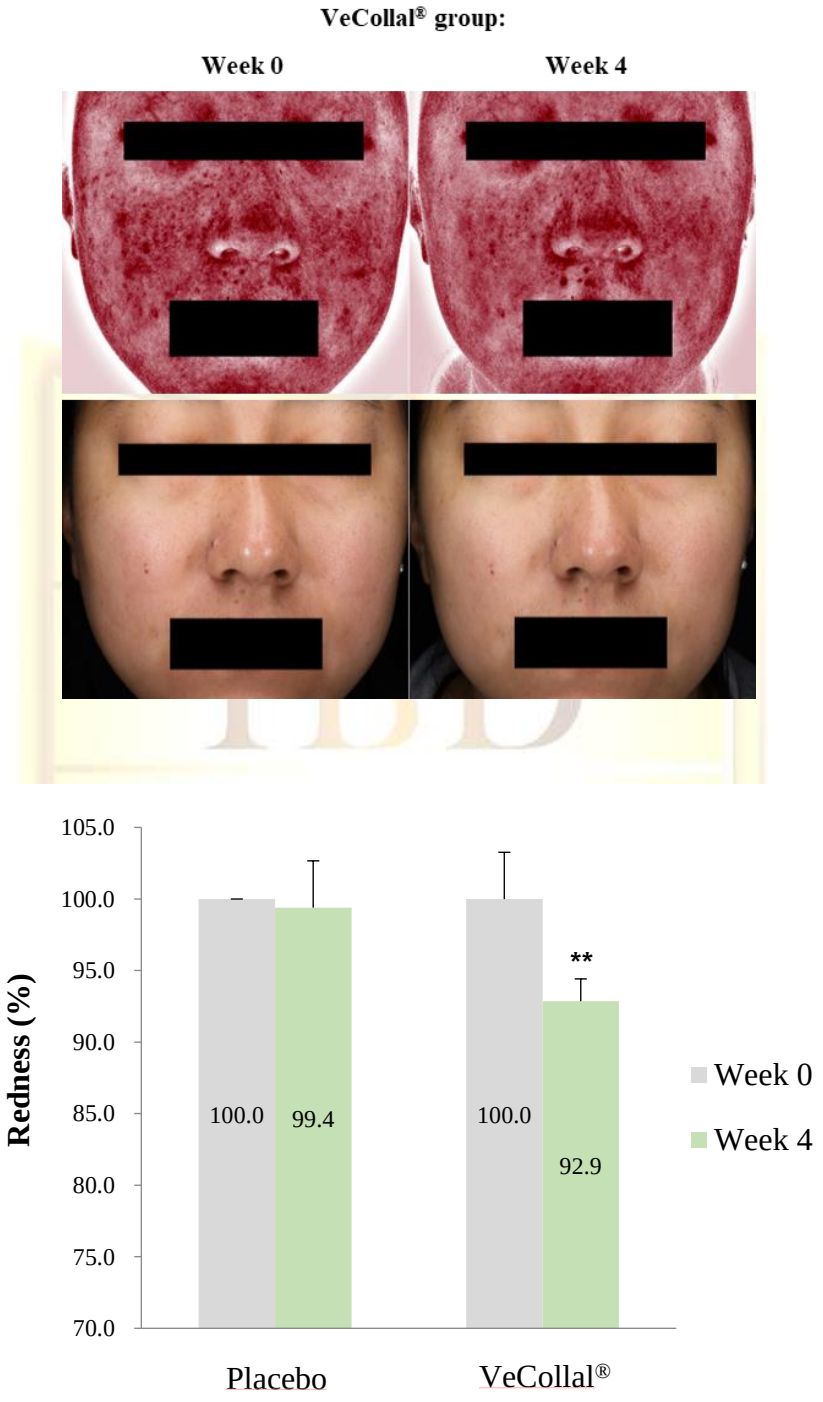


Figure 8. Skin redness of subjects before and after consuming VeCollal® or placebo sachet for 4 weeks (compare with baseline: **, $p < 0.01$).