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STUDY TITLE: Effects of LifeWave Y-age® Anti-Aging patches on varied skin types

Aim of the study:

Analyze the effect of the use of LifeWave Y-age Anti-Aging patches on various skin conditions and possibility of slowing down the aging process.

Expected result:

1. Stop or slow down loss of structural integrity and skin density
2. Achieve a relatively rapid reduction of wrinkles
3. Decrease size of the pores
4. Increase level of skin hydration
5. Rebalance Sebum production
6. Improve level of EFA (Essential fatty Acid)
7. Reduce pigmentation

Duration of the study was 12 weeks. Starting from 27 September 2010 and ended on 15th January 2011.

Method:

1. 30 females of the age between 45 to 65 took part in this study. 29 subjects completed the study. One subject came 1 week later for the 2nd test and did not commit for the following, with no reason.
2. Study was conducted as double blind placebo control.
3. After giving informed consent, the research data were collected from the study participants.
4. Study group of 24 subjects received the original Lifewave patches (Glutathione, Carnosine, Aeon), according to the protocol.
5. Control group 5 subjects received placebo patches (Glutathione, Carnosine, and Aeon) according to the same protocol.

The (Inclusion Criteria) requirements were:

- * Non smokers
- * Healthy lifestyle
- * Using their skin care regime (As Normal)

*People with different skin type and skin conditions like:

- a. Dry
- b. Oily
- c. Sensitive
- d. Mature
- e. Combination

The study used the Skinsys Software which diagnoses skin type and skin conditions providing images of the skin before, during and after the study. This software allowed objective measurements for skin comparison and gave skin analysis by full report and graph.

This is what was measured with the Skinsys Software:

1. Skin type analysis for Dry, Oily, Normal and Combination
2. Moisture level u- zone and t-zone
3. Oil measurement u-zone and t-zone
4. Curvature Analysis by using Open GL 3D Type
5. Pore size measurement
6. Keratin Analysis-Scientific analysis of keratin layer of skin by precise edge detection algorithm.
7. Pigmentation Analysis

Data Collection period of 12 weeks

Data Collected at baseline, 2 weeks, 4 weeks, 8 weeks and 12 weeks.

Rotate between GLUTATHIONE & AEON patches between the following points daily 12 hours per day

**CONCEPTION VESSEL 6**

Located about 3 finger widths below the belly button

**CONCEPTION VESSEL 22**

Located at the base of the throat, in the depression, in the center of the collar bone

**LIVER 3**

Located on the top of the RIGHT foot, in the web of the big toe

**LUNG 9**

Located at the depression at the crease in the RIGHT wrist, when you follow the thumb down to the crease

**SPLEEN 6**

Located about four finger widths above the RIGHT inside ankle bone, on the tibia bone

Rotate CARNOSINE between the following points nightly for 12 hours per day



CONCEPTION VESSEL 17

Located on the sternum, which is directly in the center of the chest



GOVERNING VESSEL 14

Located at the base of the back of the neck, where the C7 vertebra protrudes if you tuck your chin to your chest



LARGE INTESTINE 4

Located on the back of the RIGHT hand, in the web, on the bone of the index finger



GOVERNING VESSEL 2

Located at the base of the spine, just above the tail bone



HEART 7

Located on the RIGHT inside wrist crease, about one finger width from center, toward the small finger

Measurement:

Following criteria were used to determine the quality of the skin.

1. Skin Secretion
 - 1.1 Sebum production
 - 1.2 EFA deficiency
 - 1.3 Hydration
2. Skin colour
 - 2.1 Pigmentation
3. Texture
 - 3.1 Structural integrity and skin density
 - 3.2 Level of Curvature
 - 3.3 Size of the pore
 - 3.4 Pinching test
4. Amount of undamaged skin

All this criteria were analyzed by Wood lamp or/and Skin analyze camera.

The measurements of all parameters were taken 5 times.

1. Before the study- baseline
2. After 2 weeks of using the patches- 2nd test
3. After 4 weeks of using the patches – 3rd test
4. After 8 weeks of using the patches – 4th test
5. After 12 weeks of using the patches – final test

Comparative measurements of 2nd, 3rd, 4th, and final tests were taken as a percentage in relation to the baseline.

Therefore we have 4 results, from which 3 are intermediate and one is final.

1.Skin Secretion

1.1. Sebum production

Sebum production is one of the major factors and end result of the skins metabolism. When the metabolism is healthy - sebum production is even. Sebum will be mixed with water and other

lipids and will create water/oil emulsion. This emulsion is hydrolipidic film that covers the skins surface and works as a first line of the skins barrier defense.

When the skins metabolism changes for the different reasons, including ageing - uneven sebum production shows. In some skin areas there will be no sebum production which leads to lipid dry skin, and other skin areas will develop viscosity of oil flow. In both cases, hydrolipidic film as well as the skins barrier defense will be damage.

The sebum production level measurement was taken by using.

1.1.1. The skin analyze camera.

1.1.2. The wood lamp.

1.1.1 Sebum production by skin analyze camera

By using the skin analyze camera, 2 areas of the face have been analyzed:

- a). U-Zone.
- b). T-Zone.

Sebum production has been calculated in a percentage.

The scale used by our device is below

Ideal sebum production – 50%
 Lack of oil - below 50%
 Excess of oil - Over 50%

1.1.1

a). U-zone Sebum F low (production)

Study Group

Baseline:

15 subjects or 62% of the study group had a lack of sebum production
 9 subjects or 38% of the study group had an excess of sebum production
 0 subjects had ideal sebum production (See chart #1).

The average amount of excess sebum production was 91.8%.
 The average amount of a lack of sebum production was 12.9%.
 The average amount of ideal Sebum production was 0 %.(See table #1)

The following changes were recorded during the study.

The group with lack of sebum production had shown improvement (table # 1, chart #2.)

In the 2nd test = 25.4%

In the 3d test = 36.9%

In the 4th test = 45.1%

In the final test = 48.6%

Below is the comparison of the average baseline sebum production level with the consequent result of the improvement (Table # 1, chart #3)

The baseline –result of the sebum production was (-74%) less than ideal

The 1st result was (- 49.2%) less than normal

The 2nd result was (-26.2%) less than ideal

The 3d result was (- 9.8%) less than ideal

The final result was (-2.8%) less than ideal

The group with excess of sebum had shown reduction of amount of sebum production (table # 1, chart #2)

In the 2nd test = 80.1%

In the 3d test = 69.6%

In the 4th test = 60.7%

In the final test = 52.9%

Below is the comparison of the average baseline sebum production level with the consequent result of the improvement (Table # 1, chart #3)

The baseline result of the sebum production was 84% higher than ideal

The 1st result was 60.2% higher than ideal

The 2nd result was 39.2% higher than ideal

The 3d result was 21.4% higher than ideal

The final result was 5.8% higher than ideal

Control Group

Baseline

2 subjects or 40% of the control group had a lack of sebum production

3 subjects or 60% of the control group had an excess of sebum production

0 subjects had ideal sebum production.

The average amount of excess sebum production was 92.5%.

The average amount of a lack of sebum production was 13.3%.

The average amount of ideal Sebum production was 0 %.(See table #2, chart #4,5)

No changes were recorded during 12 weeks of the study

Compare to ideal sebum production;

Group with lack of sebum shows result 73.4% less than ideal during 12 weeks

Group with excess of sebum shows result 85% higher than ideal during 12 weeks

1.1.1

b). T-zone Sebum Flow (production)

Study Group

Baseline

8 subjects or 33% of the study group had a lack of sebum production

16 subjects or 67% of the study group had an excess of sebum production

0 subjects had ideal sebum production (See chart #6).

The average amount of excess sebum production was 92.5%.

The average amount of a lack of sebum production was 19.3%.

The average amount of ideal Sebum production was 0 %.(See table #3)

The following changes were recorded during the study.

The group with lack of sebum had shown increase of amount of sebum production (table # 3, chart #7, 7A)

The 2nd test = 30.8%

The 3d test = 38.5%

The 4th test = 43.6%

The final test = 49.4%

Below is the comparison of the average baseline sebum production level with the consequent result of the improvement. (Table # 3, chart #7, 8)

The baseline -result of the sebum production was 61.4% less than ideal

The 1st result was 38.4% less than normal

The 2nd result was 23.0% less than ideal

The 3d result was 12.8% less than ideal

The final result was 1.2% less than ideal

The group which excess of sebum had shown reduction of amount of sebum production (table # 3, chart #7, 7A)

The 2nd test = 74%

The 3d test = 65.9%

The 4th test = 62.3%

The final test = 54.3%

Below is the comparison of the average baseline sebum production level with the consequent result of the improvement (table # 3, chart #7, 8)

The baseline result of the sebum production was 85% higher than ideal
 The 1st result was 48. % higher than ideal
 The 2nd result was 31.8% higher than ideal
 The 3d result was 24.6% higher than ideal
 The final result was 8.6% higher than ideal

Control Group

5 subjects or 100% of the control group had an excess of sebum production
 0 subjects of the control group had a lack of sebum production
 0 subjects had ideal sebum production

The average amount of excess sebum production was 92. %.
 The average amount of a lack of sebum production was 0%.
 The average amount of ideal Sebum production was 0 %.(See table #4, chart #9)

No changes were recorded during 12 weeks of the study

Compare to ideal sebum production;
 Group with excess of sebum shows result 84-84.8 % higher than ideal during 12 weeks(See table #4, chart #9, #10)

Summary:

We have observed a major improvement in both excess of sebum and lack of sebum parameters. In the end of the study 8 subjects with lack of sebum production in both areas achieved almost ideal result with full balance of Sebum flow.

Average amount of lack of sebum portrays 48.6 % in U-Zone and 49.4% in T-Zone
 Average amount of excess of sebum portrays 52.9 % in U-Zone and 54.3% in T-Zone
 It is very close to ideal sebum production which is 50%

Control Group had no result.

1.1.2. Sebum production by Wood Lamp

Sebaceous secretions, viscosity and flow rates were analyzed by wood lamp:

Wood lamp allows us to analyze free flowing sebaceous oil and viscosity oil flow. In this case we have analyzed the % of viscosity of oil flow in all facial areas at the same time. Various shades of yellow, melon or orange color, indicate the viscosity of oil flow.

Free flowing sebaceous oil and viscosity oil flow are the major factors in the breakdown of sebaceous secretions, which leads to loss of hydrolipidic film and breach of the skins barrier defense. Quality of Sebaceous secretions indicates the overall condition of the skins metabolism.

Baseline

9 subjects or 38% of the study group had a viscosity oil flow over the whole face

3 subjects or 12% of the study group had a moderate viscosity oil flow over the whole face

4 subjects or 17% of the study group had a viscosity oil flow in t-zone and no trace of oil in other areas

8 subjects or 33% of the study group had a lipid dry skin with no appearance of oil in any areas of the face including t-zone

0 subject had a free flowing sebaceous oils (see table # 5, chart #11)

The amount of the viscosity oil flow over the whole face varies from 60% to 85%

The amount of the moderate viscosity oil flow over the whole face was 50%

The amount of the viscosity oil flow in t-zone and no trace of oil in other areas was 40%

The amount of the lipid dry skin with no appearance of oil in any areas varies from 10%-30%

In the end of the study 22 subjects can be considered to be with free flowing sebaceous oil (A bright yellow color (see table #5)

Control group Wood Lamp analyzes:

We had 5 subjects in the control group. 2 subjects had viscosity oil flow (60%-80%), 2 with moderate viscosity oil flow (50%), 1 subject with lipid dry skin (15%), 1 subject with oil flow in t-zone and no trace of oil in other areas (40%) (See table #6, Chart #11).

Sebaceous secretions, viscosity and flow rates summary:

In conclusion, we can see that during 12 weeks of using Lifewave patches, all subjects had total rebalancing in sebaceous secretions, viscosity and flow rates and achieved ideal or close to ideal skin condition. This result was gradual. (The more they used the product the better oil flow they've got).

During the 12 weeks of the study we did not record any difference in oil measurement in this area (See table #6, chart 12, 13). Control Group had no result.

1.2. Essential Fatty Acid Deficiency

Essential fatty acid (EFA) – unsaturated fats play an important role in skin body health, through the formation of the basic building blocks of body fats, biological membranes and prostaglandins. Women who are over the age of 40 or menopausal need twice the amount of EFA. This is why EFA deficiency is very common condition.

Essential fatty acid deficiency directly contributes to the following conditions: sebum flow, hydration of the skin, pigmentation and structural damage.

Essential fatty acid deficiency has been studied by wood lamp.

Wood lamp allows us to analyze essential fatty acid deficiency by observing lilac to violet color over the majority of the face.

Essential fatty acid deficiency over the whole facial area was measured in a percentage.

Study Group

Baseline:

24 subjects or 100% of the study group shown essential fatty acid deficiency over the whole facial area.

0 subjects had no essential fatty acid deficiency.

Average amount of the Deficiency of fatty acid was 77.7 %, ranging from 70% to 90% (see table #7)

The following changes were recorded during the study

All 24 subjects had shown an improvement in essential fatty acid production over the whole facial area (see table #7, chart #15)

The 2nd test = 55.8 % in average

The 3d test = 45.4% in average

The 4th test = 36.3% in average

The final test = 31.3% in average

Below is the comparison of the baseline essential fatty acid deficiency level with the consequent result of the improvement

The 1st result was 28.2% of improvement in average

The 2nd result was 41.6 % of improvement in average

The 3d result was 53.3% of improvement in average

The final result was 59.7% of improvement in average (table# 7, chart #15, #16)

Control Group

5 subjects or 100% of the control group shown essential fatty acid deficiency over the whole facial area.

0 subjects had no essential fatty acid deficiency.

Average amount of the Deficiency of fatty acid was 76%, ranging from 60% to 90% (see table #8, chart #17)

The following changes were recorded during the study.

No improvement has been shown during 12 weeks of the study.

Summary:

We have observed a major improvement in Essential fatty acid deficiency over the whole facial area in the study group.

In the study group an average amount of Essential fatty acid deficiency portrays 77.7% at the baseline. It was reduce to 31.3% after 12 weeks of using the patches.

Average result of improvement portrays 59.7%

No positive result has been recorded in the control group.

1.3. Level of Skin Hydration (moisture level)

Skin Hydration indicates the amount of water in the skin cells. Aging process is the major contributor of the amount of water that skin cell can retain. The older the cell the less water it can hold. Skin cells shape is changing, as we get older, from round to an ellipsoidal and dehydrated. Skin Hydration is also linked to the condition of hydrolipidic film, where even slightest damage to hydrolipidic film, causes degradation in cell's ability to retain intercellular water.

The skin hydration level study was taken by using the skin analyze camera. The measurements were taken in percentage.

By using the skin analyze camera, 2 areas of the face have been analyzed:

- a). U-Zone
- b). T-Zone.

The scale used by our device is below

From 0% to 27% -extremely dry skin

From 28% to 56% -moderate dry skin (low moisture level)

From 57% to 100% -moisturized skin

1.3.

a). U-Zone Skin Hydration Level

Study Group

Baseline

23 subjects or 96% of the study group had an extremely dry skin.

1 subject or 4% of the study group had a moderate dry skin (low moisture level)

0 subjects had a moisturize skin

The average level of skin hydration was 16%

The lowest level portrays 6%

The highest level portrays 28% (table # 9, chart #19)

The following changes were recorded during the study:

In the 2nd test average level of skin hydration= 21%

In the 3d test average level of skin hydration=25%

In the 4th test average level of skin hydration=30%

In the final test average level of skin hydration=35%

Below is the comparison of the baseline hydration level with the consequent result of the improvement (Table # 9, chart #19,20)

1st result=31.3% after 2 weeks

2nd result=56.3% after 4 weeks

3d result= 87.5% after 8 weeks

The final result=118.8% after 12 weeks

Control Group

5subjects or 100% of the control group had an extremely dry skin

0 subjects had a moisturize skin

The average level of skin hydration 15.8%

The lowest level portrays 9%

The highest level portrays 23% (table # 11, chart #24)

The following changes were recorded during the study:

In the 2nd test average level of skin hydration= 15.4%

In the 3d test average level of skin hydration= 15.4%

In the 4th test average level of skin hydration= 14.6%

In the final test average level of skin hydration= 14.6%

Below is the comparison of the baseline hydration level with the consequent result of the improvement (Table # 11, chart #24, 25)

1st result= (-2, 5%) after 2 weeks

2nd result5= (-2.5%) after 4 weeks

3d result= (-7.6 %) after 8 weeks

The final result= (-7.6 %) after 12 weeks

1.3.

b). T-Zone Skin Hydration Level

Study Group

Baseline

22 subjects or 92% of the study group had an extremely dry skin
 2 subjects or 8% of the study group had a moderate dry skin (low moisture level)
 0 subjects had a moisturize skin
 The average level of skin hydration was 18 %
 The lowest level portrays 7%
 The highest level portrays 28% (table # 10 chart #21)

The following changes were recorded during the study:

In the 2nd test average level of skin hydration= 23%
 In the 3d test average level of skin hydration= 28%
 In the 4th test average level of skin hydration= 33%
 In the final test average level of skin hydration= 38%

Below is the comparison of the baseline hydration level with the consequent result of the improvement (Table #10, chart #21)

1st result= 27.8% after 2 weeks
 2nd result= 55.6% after 4 weeks
 3d result= 83.3% after 8 weeks
 The final result= 111.1% after 12 weeks (table #10, Chart #22)

Control Group

4 subjects or 96% of the control group had an extremely dry skin
 1 subject or 4% of the control group had a moderate dry skin (low moisture level)
 0 subjects had a moisturize skin

The average level of skin hydration 19.2%
 The lowest level portrays 12%
 The highest level portrays 28% (table # 11, chart #24)

The following changes were recorded during the study:

In the 2nd test average level of skin hydration= 19%
 In the 3d test average level of skin hydration= 18.8%
 In the 4th test average level of skin hydration= 18%
 In the final test average level of skin hydration= 18%

Below is the comparison of the baseline hydration level with the consequent result of the improvement. (Table # 11, chart #24, 25)

1st result= (-1%) after 2 weeks
 2nd result= (-2.1%) after 4 weeks

3d result= (-6.3%) after 8 weeks
 The final result= (-6.3%) after 12 weeks

Summary:

During 12 weeks of using the patches we have noticed that Hydration level in both zone (U-Zone and T-Zone) has been visibly increased in the study group. (Chart # 21,23)

Average level of skin hydration of U-Zone portrays 16 % in the study group at the baseline and was increase to 35% after 12 weeks of using the patches.

Average level of skin hydration of T-Zone portrays 18 % in the study group at the baseline and was increase to 38% after 12 weeks of using the patches.

Average improvement result compares to baseline portrays 118.8% in U-Zone and 111.1% in T-Zone.

Therefore after 12 weeks of the study 100% of the subjects did not achieve ideal hydration level.

The skin hydration level in control group has been slightly reduce during the study by 7.6% in U-Zone and by 3% in T-Zone

2 Skin Color

2.1.Pigmentation

Pigmentation reflects internal damage of the skins metabolism. It is triggered by UVR exposure, but main causes may be one of the following: trauma, medication, chemical substance, hormonal, Vitamin A & C Deficiencies and Essential fatty acid deficiency.

The pigmentation level measurement was taken by using

2.1.1 Wood lamp

2.1.2 Skin Analyze Camera

Evaluation was done by the area of the damaged skin and measured in percentage.

2.1.2. Pigmentation by Wood Lamp

By using the Wood Lamp was analyzed pigmentation over the whole facial area. This skin condition is apparent in varying shades of brown with a burgundy overtone.

Evaluation was done by the area of the damaged skin and in measured in percentage.

Study Group :

24 subjects or 100% of the study group had quite high level of pigmentation
 Average level of pigmentation was 82.1% (see table # 33)
 The lowest level portrays 60%
 The highest level portrays 90% (table # 33)

The following changes were recorded during the study:

In the 2nd test average level of skin pigmentation was =57.9%
 In the 3d test average level of skin pigmentation was =52.9%
 In the 4th test average level of skin pigmentation was =51.3%
 In the final test average level of skin pigmentation was =48.8%

Below is the comparison of the baseline pigmentation level with the consequent result of the improvement. (Table # 33, chart #39, #40)

1st result = 29.5 % after 2 weeks
 2nd result = 35.6% after 4 weeks
 3rd result = 37.5% after 8 weeks
 The final result = 40.6% after 12 weeks

Control Group

5 subjects or 100% of the control group had a high level of pigmentation.
 0 subjects had a high level of pigmentation

The average level of skin pigmentation was 80%
 The lowest level portrays 70%
 The highest level portrays 90% (table # 34)

The following changes were recorded during the study:

In the 2nd test average level of skin pigmentation was =80%
 In the 3d test average level of skin pigmentation was =82%
 In the 4th test average level of skin pigmentation was = 84%
 In the final test average level of skin pigmentation was =86%
 Below is the comparison of the baseline pigmentation level with the consequent result of the improvement. (Table # 34, chart #41, 42)

1st result = 0% after 2 weeks
 2nd result = (-2. 5%) after 4 weeks
 3rd result = (-5%) after 8 weeks
 The final test = (-7.5%) after 12 weeks

Summary:

During 12 weeks of using the patches we have noticed that Skin Pigmentation level has been visibly reduced in the study group.

Average level of skin pigmentation portrays 82.1% in the study group at the baseline and was reduce to 48.8% after 12 weeks of using the patches.

Average level of skin pigmentation in control group portrays 80% at the baseline with slight increase to 86% after 12 weeks of using the placebo patches.

Average pigmentation level has improved (reduced) by 40.6% in Study Group but had slight increase by 7.5% in Control Group during the same period of time (chart # 43, 44).

2.1 Study of pigmentation level by skin camera.

Pigmentation was measured by comparing different color intensities of skin in pre-defined areas of the face. The same areas were selected for all subjects (Cheeks, forehead)

Evaluation was done by the area of the damaged skin and measured in percentage.

The scale used by our device is below

0%- 19% very low level of pigmentation

20%-39% very low level of pigmentation

40%-59% normal or reasonable level of pigmentation

60%-79% high level of pigmentation

80%-100% very high of level of pigmentation

Study Group:

In the study group - 24 subjects had different color intensities of skin between 64%-98%

Average amount of pigmentation level was 84.8% (see table #33 chart # 31)

20 subjects or 83% of the study group had very high level of pigmentation.

4 subjects or 13% of the study group had high level of pigmentation. (See chart # 32)

The following changes were recorded during the study:

In the 2nd test average level of skin pigmentation was =60.39%

In the 3d test average level of skin pigmentation was =59.3%

In the 4th test average level of skin pigmentation was =58.5%

In the final test average level of skin pigmentation was =57%

Below is the comparison of the baseline pigmentation level with the consequent result of the improvement. (Table # 31, chart #31)

1st result = 28.9 % after 2 weeks

2nd result = 30.1% after 4 weeks

3rd result = 31% after 8 weeks

The final result = 31.8% after 12 weeks (table 31, chart # 33)

After 12 weeks of the study 67% of subjects achieved reasonable (normal) level of pigmentation (from 52% to 59%) and 33% achieved high level of pigmentation from 60%-63% (see table #31, chart #34)

Control group

4 subjects or 96% of the study group had very high level of pigmentation.

1 subject or 4% of the study group had high level of pigmentation. (See table # 32)

Average amount of pigmentation level was 82% .

The following changes were recorded during the study:

In the 2nd test average level of skin pigmentation was =82.8%

In the 3d test average level of skin pigmentation was =85.2%

In the 4th test average level of skin pigmentation was =87%

In the final test average level of skin pigmentation was =88.8%

Below is the comparison of the baseline pigmentation level with the consequent result of the improvement.

1st result = (-1%) after 2 weeks

2nd result = (-3.9%) after 4 weeks

3rd result = (-6.1%) after 8 weeks

The final result = (-8.3%) after 12 weeks (table 31, chart # 36)

Summary:

Study of pigmentation level by Skin Camera shown that the use of Lifewave patches during the 12 weeks had positive influents on pigmentation level reduction.

Average pigmentation level has improved (reduce) by 32.8% in Study Group but had slight increase by 8.3% in Control Group during the same period of time (chart # 36, 37).

Taking into consideration that the study has been conducted during summer time and the subjects were exposing to the sun the outcome is significant.

We can see that control group had an opposite result, which shown some increase in pigmentation level and color intensities.

In such short period of time it is impossible to restore pigmentation balance with skin care products know to us (without damaging the skin)

3. Texture of the skin

The surface texture and appearance of the epidermis is the first to show changes when something goes wrong with the skin and related systems. Two factors determine the texture of the skin they are the external factors and internal factors. The main characteristics of the texture

of the skin are: wrinkles, density of the skin, presents of collagen and elastin, structural integrity, adhesion and resiliency.

Following criteria were used in the study to analyze texture of the skin:

3.1 Los of structural integrity and skin density.

3.2 Curvature level

3.3 Size of the pores

3.4 Pinching test (Presents of collagen and density of the skin)

3.1. Loss of structural integrity and skin density.

Structural integrity and skin density reflexes metabolic processes of the epidermis. Primarily responsible for the structural integrity of tissues, giving shape and density are collagen and elastin.

In this study we have analyzed the % of loss of structural integrity and skin density over the whole facial area by Wood Lamp.

Wood lamp allows us to analyze skin density and loss of structural integrity by observing scarlet tones which blend towards the burgundy and purple shades over the majority of the face.

3.1.1 Study Group

Baseline:

24 subjects or 100% of the study group had quite savior Loss of structural integrity and skin density.

The average amount of Loss of structural integrity and skin density was 70.2% ranging from 45% to 90% (see table #50)

The following changes were recorded during the study:

All 24 subjects had improvement in structural integrity and skin density

In the 2nd test average loss of structural integrity and skin density =56.1%

In the 3d test =43.7%

In the 4th test =34.3%

In the final test 27.6% (see table #50 chart #50)

Below is the comparison of the baseline measurement of loss of structural integrity and skin density with the consequent result of the improvement:

The 1st result =20.1%

The 2nd result= 37.7%

The 3d result =51.1% %

The final result =60.7% (See table# 50 chart #51)

3.1.2 Control group

Baseline:

5 subjects or 100% of the control group show the similar level of loss of structural integrity and skin density as the study group.

The average amount of Loss of structural integrity and skin density was 72% and ranging from 70% to 80% (See table #51 charts #52, 53)

The following changes were recorded during the study:

All subjects did not have any changes during the study and result was =0

Summary

We have observed a major improvement in skin structure, structural integrity and skin density.

In the study group an average amount of improvement portrays 70.2% at the baseline. It was reduced to 27.6% after 12 weeks of using the patches.

No positive result has been recorded in the control group.

3.2 Curvature level

Curvature or depth of the wrinkles that we see at the surface of the skin is the reflection of the Loss of structural integrity and skin density. Collagen is major part of the weave of the skin, with principle function being to help maintain the resistance, skin density, and structural integrity in the tissues. Elastic fibred allow tissues to respond to stretch and distension, and responsible for resiliency and adhesion.

The Curvature level measurement was taken by using Skin analyze camera

Two areas of the face have been analyzed:

- a) Around the eye area
- b) Nasal labial fold

The curvature level has been calculated in a percentage.

The scale used by our device is below

0%-19% very low level of curvature

20%-39 very low level of curvature

40%-59% reasonable level of curvature

60%-79% high level of curvature

80%-100% very high level of curvature

3.2.1 Study Group

Baseline:

24 subjects or 100% of the study group had savior Curvature Level.

The average amount of Curvature level was 91% (See table #52)

23 subjects or 96% of study group demonstrated very high Curvature level from 83 % to 100%

1 subject or 4% of study group demonstrated high Curvature level 75%

0 subjects had reasonable or low curvature level

Curvature level and quality of the collagen pillow were photographed at baseline (see photo)

The following changes were recorded during the study:

During the study all 24 subjects show gradual improvement in Curvature Level (see table #52, chart #54)

In the 2nd test average Curvature level = 86.8%

In the 3d test = 74%

In the 4th test = 63.9%

In the final test = 58.1%

Below is the comparison of the baseline measurement of curvature level with the consequent result of the improvement:

The 1st result = 4.6%

The 2nd result 18.7%

The 3d result = 29.8%%

The final result = 36.2% (table #52, chart #55)

3.2.2 Control group

Baseline:

5 subjects or 100% of the control group show the similar level of Curvature level as study group

The average amount of Curvature level was 89.9% and ranging from 78% to 100%

(see table #53)

The following changes were recorded during the study:

All subjects did not experience any positive changes during the study and result was = 0

4 subjects showed 0 result, and 1 subject show result (- 1.3%), which led to more savior damage (see table #53, chart # 56, 57)

Summary

We have observed a major improvement in curvature level. All 24 subjects showed visible improvement.

16 subjects or 67% of study group reduced Curvature level from a very high to reasonable.

8 subjects or 33% of study group reduced Curvature level from a very high to high.

In the study group an average amount of improvement portrays 91% at the baseline. It was reduced to 36.2% (with an average of 58.1%) after 12 weeks of using the patches.

No positive result has been recorded in the control group.

Comparing the result in the chart #58, 59

3.3 Size of the pores

Size of the pores is the reflection of the internal metabolic process. Adhesion, resiliency as well as skin density will indicate the size of the pores. Usually young and firmed skin will appear with the smaller pores. With the lost of the resiliency and deterioration of collagen pillow the skin will appear with enlarged pores.

The size of the pores was measured by using Skin analyze camera.

We have analyzed the cheek area.

The scale used by our device is below:

1. Very small
2. Small size
3. Reasonable size
4. Large size
5. Very large

Small and very small size of the pores consider as ideal size of the pores.

3.3 Study Group

Baseline:

8 subjects or 33% of the study group had very large size of the pores.

11 subjects or 46% of the study group had large size of the pores.

5 subjects or 21% of the study group had reasonable size of the pores.

0 subjects of the study group had small or very small size of the pores (see table #60, chart # 60, photo #3)

The following changes were recorded during the study:

During the study all 24 subjects show dramatic improvement in size of the pores (see table #60, chart #60)

In the 2nd test

8 subjects or 33% of the study group had very large size of the pores.

10 subjects or 42% of the study group had large size of the pores.

6 subjects or 25% of the study group had reasonable size of the pores. (Chart #61)

In the 3d test

2 subjects or 8% of the study group had very large size of the pores.

4 subjects or 17% of the study group had large size of the pores.

16 subjects or 67% of the study group had reasonable size of the pores.

2 subjects or 8% of the study group had small size of the pores. (Chart #62)

In the 4th test

11 subjects or 46% of the study group had reasonable size of the pores.

8 subjects or 33% of the study group had small size of the pores.

5 subjects or 21% of the study group had very small size of the pores. (Chart #63)

In the final test

1 subject or 4% of the study group had reasonable size of the pores.

16 subjects or 67% of the study group had small size of the pores.

7 subjects or 29% of the study group had very small size of the pores. (Chart #64)

Control Group:

Baseline:

2 subjects or 40% of the study group had very large size of the pores.

2 subjects or 40% of the study group had large size of the pores.

1 subject or 20% of the study group had reasonable size of the pores.

0 subjects had small or very small pores (table 61, chart #66, 67)

The following changes were recorded during the study:

All subjects did not have any changes during the study and result was =0

Summary

We have observed a major improvement in the size of the pores.

In the study group 79 % of the subjects had large or very large pores, 21% of the subjects had reasonable size of the pores, and 0% of the subjects had ideal size of the pores. After 12 weeks of the study 96% of subjects show ideal size of the pores (small or very small) and 4% of subjects show reasonable size of the pores.

We did not record any result in the control group.

As we mentioned before size of the pores depend on quality of collagen pillow and skin resiliency, the result shows improvement in collagen layers and skin resiliency.

3.4 Pinching test

In cosmetology the " pinching test" is used to check collagen structure and elasticity of the skin.

Top of eye lead is the most effective area for the test. By pinching the top of eye lead we are looking for the " bounds back " effect. Young and resilient skin will " bounds back" immediately. When collagen structure and elastin of the skin are damaged it will take some time to the skin to get back to the original shape.

The " pinching test" was measured by seconds.

Testing area:

- a) Top of eye lead

3.4.1 Study Group

Baseline:

24 subjects or 100% of the study group had savior loss of resiliency at the top of the lead. The average time of testing was 10.5 sec and ranging from 8 sec to 15 sec. (see table # 62)
The following changes were recorded during the study:

During the study all 24 subjects show gradual improvement in this test., see table #62, chart# 67

In the 2nd test average =7.7 Sec
In the 3d test =5.8 sec
In the 4th test =4.4sec
In the final test= 2.9 sec

Below is the comparison of the baseline measurement of “Pinching test” with the consequent result of the improvement:

The 1st result =26.7%
The 2nd result =44.8%
The 3d result =58.1%
The final result =72.4 (see table 62, chart # 67, 68)

3.4.2 Control group

Baseline:

5 subjects or 100% of the control group show savior loss of resiliency at the top of the lead. With an average time of testing 10.8 sec. and ranging from 8 sec to 15sec. This is the same as the study group. (See table #63)

The following changes were recorded during the study:

All subjects did not have any changes during the study and result was =0

Summary

The study demonstrated direct connection with use of Lifewave anti-ageing protocol to reconstruction of elastine, collagen layers of the skin.
In the study group 100% of subjects had show gradual reduction in time of the “ pinching test” . Average time reduced from 10.5 sec, to 2.9 sec, which is more than 3 times.
5 Subjects or 21% of the study group achieved instant “ bounds back” result.

No positive result has been recorded in the control group.

Comparing result in the chart #70.

4. Amount of undamaged skin

This parameter characterizing the amount of the skin that is not affected by any damage. Amount of undamaged skin directly depends on the majority of skin conditions. In another words, this is areas of the skin that is not involved in the following processes: pigmentation, loss of structural integrity and skin density, glycation, viscosity of sebum, EFA deficiency and others.

Amount of undamaged skin was analyzed by wood lamp.

Wood lamp allows us to analyze undamaged skin by observing clear/ cream color over the face. Amount of undamaged skin over the whole facial area was measured in a percentage.

4.1 Study Group

Baseline:

24 subjects or 100% of the study group had very low percentage of undamaged skin. The average amount of undamaged skin was 15.2%, ranging from 10% to 30%. (See table # 70)

The following changes were recorded during the study:

In the 2nd test average amount of undamaged skin = 29.6%

In the 3d test average amount of undamaged skin = 39.8%

In the 4th test average amount of undamaged skin = 46.7%

In the final test average amount of undamaged skin = 50.6% (table #70, chart # 71)

Below is the comparison of the baseline measurement of undamaged skin with the consequent result of the improvement:

The 1st result = 94.7%

The 2nd result = 161.8%

The 3d result = 207.2%

The final result = 232.9% (chart # 72)

4.2 Control group

Baseline:

5 subjects or 100% of the study group had very low percentage of undamaged skin.

The average amount of undamaged skin was 15 %, ranging from 10% to 20%. (See table # 71)

The following changes were recorded during the study:

In the 2nd test average amount of undamaged skin = 15%

In the 3d test average amount of undamaged skin = 12%

In the 4th test average amount of undamaged skin = 10%

In the final test average amount of undamaged skin = 10% (table #71, chart # 73)

Below is the comparison of the baseline measurement of undamaged skin with the consequent result of the changes:

The 1st result = 0%

The 2nd result = (-20%)

The 3d result = (-33%)

The final result = (-33%) (Chart # 74)

Summary

The study demonstrated that the use of Lifewave patches has resulted in significant improvement in various skin conditions. This improvement in skin conditions have also resulted in increase in the amount of undamaged skin.

In two weeks since the beginning of study, the amount of undamaged skin has increased by 100% and by the end of the study by near 300%

Also, by the end of the study, 18 subjects (75% of the study group) have shown an amount of undamaged skin over 50%. In some subjects 500% to 600% improvement was observed.

During the same observation period, the control group has experienced some degradation of skin condition and reduction in undamaged skin amount.

For comparison data on the amount of undamaged skin and improvements result, please refer to charts 75, 76.

SUBJECT REACTIONS:

1. 4 subjects experienced headaches.
2. 1 subject had heavy herpes in the nose and lip area. She did not suffer from herpes for the last 3 years, but previously she has a history of herpes.
3. 5 subjects experienced low energy and weakness in the first 2 weeks of the study, which then resolved.
4. 6 subjects noticed high level of energy.
5. 1 subject noticed that conditions of her gums improved (Became firmer and fuller), towards the end of the study.

CONCLUSION

This study has shown that the use of Lifewave patches has positive effect on skin condition, which depends from internal and external factors.

In the study we have identified three parameters, which define skin conditions:

1. Skin Secretion
2. Skin Color
3. Skin Texture

Most noticeable results were obtained in:

Rebalancing Sebum flow. Use of patches has resulted in improvement in both, lack of sebum production and excess of sebum production. Both parameters have returned to close to ideal at the end of the study. Results from different techniques, which were deployed in order to measure these parameters (Skin Analyses camera and Wood lamp method), have shown full correlation.

EFA Deficiency. Use of patches has resulted in reduction of EFA deficiency, which changed from very high to mild. Consequently, we can assume that patches have uncovered hidden reserves of the human body.

Structural Integrity and Skin Density test results have shown 100% improvement.

Condition of the collagen layer according to pinching test have improved by 72%

Satisfactory results were obtained with hydration and pigmentation tests.

While hydration levels during study did not reach ideal level, the overall result may be considered good. Study was conducted during the hottest summer period, which resulted in subjects been exposed to the drying effects of air-conditioning. This is also confirmed by decrease of hydration level in control group during the study period.

Most of the improvement in pigmentation level in study group was observed during the first two weeks. We should again notice an excessive exposure of subjects to ultra-violet radiation during the hot summer month. On the other hand in the control group, we could clearly observe an increase in pigmentation. The improvements in the skin observed with the active Y-age patches (Aeon, Glutathione and Carnosine) are consistent with rejuvenating and anti-aging effects so the hypothesis of an anti-aging response was accepted as true.

In our personal opinion, there is no other product on the market that could achieve that much improvement in skin condition on so many levels in such a short period of time.