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Placebo-Controlled, clinical-instrumental assessment of the efficacy of cosmetic products for the treatment of alopecia grade II and III or Telogen effluvium.

B'IOTA LABORATORIES

HERBAL Shampoo and HERBAL Solution

Pavia, June, 7th 2011

Abstract

This study reports the data obtained during a trial aimed to assess the efficacy of HERBAL Serum, HERBAL Solution and their sinergy of use. Products efficacy was evaluated on 120 subjects (30 subjects per treatment arm) suffering from alopecia (grade II and III) or telogen effluvium. The following results were obtained:

PULL TEST							
	0	1 month	2 months	3 months	4 months	5 months	6 months
Shampoo (Active)	10.3 ± 0.7	7.4 ± 0.4	6.6 ± 0.4	4.0 ± 0.3	3.0 ± 0.2	2.4 ± 0.2	1.4 ± 0.2
(Variation vs. T0)		-28%	-36%	-61%	-71%	-77%	-86%
Solution (Active)	8.5 ± 0.6	5.2 ± 0.4	4.2 ± 0.3	3.0 ± 0.3	1.5 ± 0.1	1.5 ± 0.2	1.1 ± 0.2
(Variation vs. T0)		-39%	-51%	-65%	-82%	-82%	-87%
Shampoo (Active)+Solution (Active)	10.7 ± 0.9	5.6 ± 0.4	4.0 ± 0.3	2.6 ± 0.3	1.3 ± 0.2	0.9 ± 0.2	0.7 ± 0.1
(Variation vs. T0)		-48%	-63%	-76%	-88%	-92%	-93%
Shampoo (Placebo) + Solution (Placebo)	9.5 ± 0.7	8.3 ± 0.7	7.7 ± 0.6	7.4 ± 0.6	7.3 ± 0.5	6.9 ± 0.6	5.8 ± 0.5
(Variation vs. T0)		-13%	-19%	-22%	-23%	-27%	-39%

PHOTOTRICOGRAM (TOTAL HAIRS, ANAGEN HAIRS, TELOGEN HAIRS)							
		0		2 months		4 months	6 months
Shampoo (Active) TOh		212.6 ± 4.3	●●●	214.2 ± 4.1	●●●	217.2 ± 4.0	●●●	219.3 ± 3.6
ANh		138.7 ± 3.9	●●●	152.4 ± 4.8	●●●	162.5 ± 4.9	●●●	172.5 ± 5.0
TEh		73.8 ± 2.6	●●●	61.8 ± 3.5	●●●	54.7 ± 4.0	●●●	46.8 ± 3.9
(Variation vs. T0 - TOh)				1.7 ± 0.9		4.6 ± 0.9	6.7 ± 1.3
(Variation vs. T0 - ANh)				5.9 ± 1.0%		9.7 ± 1.1%	13.4 ± 0.9%
(Variation vs. T0 - TEh)				-5.9 ± 1.0%		-9.7 ± 1.1%	-13.4 ± 0.9%
Solution (Active) TOh		211.9 ± 4.3	●●●	213.8 ± 4.2	●●●	218.5 ± 4.3	●●●	221.1 ± 4.2
ANh		138.7 ± 4.2	●●●	160.2 ± 5.2	●●●	169.4 ± 5.1	●●●	179.9 ± 5.3
TEh		73.2 ± 3.0	●●●	53.6 ± 4.1	●●●	49.1 ± 3.9	●●●	41.3 ± 3.7
(Variation vs. T0 - TOh)				1.8 ± 1.0		6.6 ± 0.8	9.2 ± 1.0
(Variation vs. T0 - ANh)				9.5 ± 1.2%		12.1 ± 1.1%	15.9 ± 1.1%
(Variation vs. T0 - TEh)				-9.5 ± 1.2%		-12.1 ± 1.1%	-15.9 ± 1.1%
Shampoo (Active)+Solution (Active) TOh		212.4 ± 4.5	●●●	214.1 ± 4.6	●●●	220.0 ± 4.7	●●●	225.0 ± 4.7
ANh		135.4 ± 4.1	●●●	169.8 ± 6.8	●●●	180.4 ± 6.3	●●●	190.5 ± 6.0
TEh		76.9 ± 1.9	●●●	44.3 ± 3.7	●●●	39.6 ± 3.3	●●●	34.5 ± 3.4
(Variation vs. T0 - TOh)				1.8 ± 1.5		7.6 ± 1.5	12.6 ± 1.6
(Variation vs. T0 - ANh)				15.1 ± 1.4%		18.0 ± 1.2%	20.9 ± 1.3%
(Variation vs. T0 - TEh)				-15.1 ± 1.4%		-18.0 ± 1.2%	-20.9 ± 1.3%
Shampoo (Placebo) + Solution (Placebo) TOh		217.3 ± 4.3	●●●	216.7 ± 4.3	●●●	217.5 ± 4.4	●●●	217.1 ± 4.5
ANh		141.2 ± 4.1	●●●	143.2 ± 4.6	●●●	141.9 ± 4.3	●●●	139.5 ± 4.0
TEh		76.2 ± 3.5	●●●	73.5 ± 4.0	●●●	75.5 ± 3.7	●●●	77.6 ± 3.6
(Variation vs. T0 - TOh)				-0.7 ± 0.9		0.1 ± 0.6	-0.2 ± 0.9
(Variation vs. T0 - ANh)				1.1 ± 0.9%		0.3 ± 0.8%	-0.6 ± 0.9%
(Variation vs. T0 - TEh)				-1.1 ± 0.9%		-0.3 ± 0.8%	+0.6 ± 0.9%

SELF ASSESSMENT							
	Question 1	Question 2	Question 3	Question 4	Question 5		
Shampoo (Active)	8.5 ± 0.2	6.8 ± 0.3	7.3 ± 0.2	7.7 ± 0.2	7.6 ± 0.2	●●●	●●●
Solution (Active)	8.6 ± 0.2	6.9 ± 0.2	7.9 ± 0.2	7.9 ± 0.2	8.2 ± 0.2	●●●	●●●
Shampoo (Active)+Solution (Active)	9.2 ± 0.2	7.8 ± 0.3	8.7 ± 0.2	8.1 ± 0.2	9.0 ± 0.2	●●●	●●●
Shampoo (Placebo) + Solution (Placebo)	5.4 ± 0.3	4.6 ± 0.3	4.8 ± 0.3	4.8 ± 0.3	4.4 ± 0.4	●●●	●●●

As it possible to notice, the treatment of the hairs with HERBAL Shampoo and HERBAL Solution have a positive effect on the measured parameters. Furthermore, the concomitant use of the two products determines a synergistic effect. These effects were also perceived by the subjects participating in the study and statistically bigger than that obtained by the subjects that used the placebo products.

.: INDEX :.

.: STUDY DESIGN :.

1.1 Title
Placebo-Controlled, clinical-instrumental assessment of the efficacy of cosmetic products for the treatment of alopecia grade II and III and Telogen effluvium.

1.2. Aim
The aim of the trial is to assess the efficacy and the synergy of use of cosmetic products for the treatment of alopecia or telogen effluvium. In order to reach this goal a placebo-controlled, clinical-instrumental study is carried out on 120 (30 subjects per treatment arm) males and females suffering from alopecia (grade II and III) or telogen effluvium. After 1, 2, 3, 4, 5 and 6 months, product efficacy is evaluated by means of pull test and/or phototricogram. The instrumental analysis is completed by both the clinical evaluation carried out by a dermatologist and the self-assessment by volunteers.

1.3. Tested products

    1.3.1. Information provided by the Customer
- ☒ Products name:
  HERBAL SHAMPOO and **HERBAL SOLUTION**
- ☒ The tested cosmetic products do not contain any substance which is forbidden by EEC regulations regarding the use of cosmetic and personal hygiene products; the preservatives contained in their formula are in the list of accepted ingredients published by EEC and are used in a concentration provided for by the law. The use of all substances that are subject to concentration limits conforms to the limits and instructions published in the respective appendices of EEC regulation 76/768 and amendments.
- ☒ Tested cosmetic products are evaluated for their safety of use on human volunteers (safety assessment).
- ☒ Test cosmetic products are manufactured in compliance with ISO 9001:2008 & ISO 14001:2009 and in compliace with 76/768/EEC and subsequent amendments. All ingredient used in production of finished materials meet the requirements of the directives against the risk of BSE and are safe for use in Europe.
- ☒ How to use the products:
  - ➢ Shampoo. Apply on wet hairs.
  - ➢ Solution. Apply on wet hairs and massage all over the scalp.
- ☒ Qualitative INCI formula: filed

1.4. Ethical requirements
The trial is carried out in accordance with the following ethical requirements.
1.4.1. All those taking part in the trial are healthy volunteers aged 18 or over.
1.4.2. All those taking part in the trial are selected under the supervision of the dermatologist on the basis of the inclusion/non-inclusion criteria (see § 1.5.1.1.-2.).
1.4.3. All those taking part in the trial are volunteers who are informed on the aim and nature of the trial.
1.4.4. All those taking part in the trial are informed of the possible risks involved.
1.4.5. All those taking part in the trial express their written and signed informed consent before the start of the trial.
1.4.6. Before the volunteers are exposed to the trial product, all the relevant safety information on the product and its ingredients are assessed.
1.4.7. All the trial procedures are carried out in accordance with the ethical principles laid down for medical research (Ethical Principles for Medical Research Involving Human Subjects, adopted by the 18th General Assembly of the AMM in Helsinki, Finland, in June 1964, and amendments).
1.4.8 All the necessary precautions are adopted to avoid adverse skin reactions.
1.4.9. In the event of any unexpected or adverse reactions, the gravity of these is assessed by the medical investigator (with a detailed description to be entered in the individual record file of the volunteer) and the appropriate treatment is administered as a consequence.

1.5. Test subjects

    1.5.1. Selection of the test subjects
The subjects taking part in the trial are selected by a dermatologist from a panel of healthy male and female subjects aged from 20 to 55 years old, with the application of the following inclusion and non inclusion criteria.

    1.5.1.1. Inclusion criteria
- ☑ Healthy male and female subjects
- ☑ Age: between 20 and 55 years old
- ☑ Race: Caucasian
- ☑ Male subjects suffering from alopecia grade II and III (in accordance with the Hamilton-Norwood scale) or male and female subjects suffering from telogen effluvium
- ☑ No participation in similar trials for at least six months
- ☑ Agreement not to use other products with similar activity to the test product throughout the duration of the trial
- ☑ Agreement not to make any changes to the normal everyday routine
- ☑ Subjects informed of the trial procedures who have signed an informed consent form

1.5.1.2. Non inclusion criteria

- ✖ Subjects not satisfying the inclusion criteria
- ✖ Pregnant or breast-feeding women
- ✖ Previous history of allergy or sensitivity to cosmetic products, toiletries, sun products and/or topic medication
- ✖ Subjects with dermatological problems
- ✖ Subjects under local or systemic pharmacological treatment
- ✖ Positive case history of atopy
- ✖ Presence of skin pathologies

1.5.1.3. Group formation

Products allocation is randomized in accordance with a randomization list. The randomization list is created using the Wei's Urn algorithm designed to generate balanced random samples throughout the course of an experiment. The following groups are formed:
- group A: 30 subjects that use Active Shampoo
- group B: 30 subjects that use Active Solution
- group C: 30 subjects that use Active Shampoo and Active Solution
- group D: 30 subjects that use Placebo Shampoo and Placebo Solution.
The randomization list is reported in the annex 1.

Box 1 - Hamilton-Norwood Scale
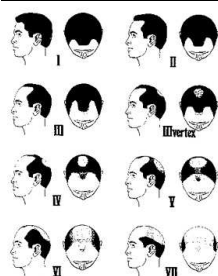
The Hamilton-Norwood[1] scale is widely used by the professionals to classify the degree of baldness of the patient. The typical pattern of hair loss is divided into seven categories. No hair loss is termed 'type I'. Minor recession of the frontal hairline is termed 'type II'. Type III indicates further frontal loss, and is considered 'cosmetically significant'. The subset of type III, termed 'III vertex', shows significant frontal recession coupled with hair loss from the vertex region of the scalp. Types IV–VI show further frontal and vertex loss, culminating in type VII, in which only the occipital scalp region maintains significant amounts of hair.

[1] Norwood OT. Male pattern baldness: classification and incidence. South Med J 1975; 68: 1359-65.

1.6. MATERIALS AND METHODS

1.6.1. Development of the study

After the enrolment the dermatologist evaluates the physiological (T0) scalp and hairs conditions. Then, to the subjects are given instructions on how to use the products, the informative form of the study and the product(s) to be tested. The dates for the checks after 1, 2, 3, 4, 5 and 6 months of treatment are then arranged.
The table here below report the study outline.

	T0	T1	T2	T3	T4	T5	T6
Enrolment	X						
Inclusion criteria	X	X	X	X	X	X	X
Subject compliance	X	X	X	X	X	X	X
Pull test	X	X	X	X	X	X	X
Phototricogram	X		X		X		X
Dermatological evaluations	X	X	X	X	X	X	X
Self assessment							X

In the paragraphs here below are reported the evaluated parameters.

1.6.2. Phototricogram: evaluation of anagen and telogen phase hairs

A targeted area (a transitional area of hair loss between normal hair and the balding area in male androgenetic alopecia and mid-vertex in women with diffuse hair loss) of 1.8 cm^2 is chosen for clipping. The clipped hairs within the targeted area are dyed for gray or for fairs hairs and photographs are taken immediately after shaving and 2 days after shaving with a digital close-up camera. These two photographs are examined by a software system that is able to recognize individual hair fibers in the photographs. By comparing the two photograph, the software can determine which hairs are growing (anagen phase) and which are not (telogen phase). For further explanation about hair cycle see box 2 on the next page.

1.6.3. Pull test

The pull test helps evaluate diffuse scalp hair loss. Gentle traction is exerted on a bunch of hairs (about 60)and the number of extracted hairs is counted. Operatively, the dermatologist takes a few strands between their thumb and forefinger and pulls on them gently. Anagen, growing hairs should remain rooted in place while hairs in telogen should come out easily. If the number of lost hairs is greater than 6, pull test is positive and suggestive of telogen effluvium. Before the pull test subjects are asked to not wash hairs in the preceding 24 hours.

1.6.4. Dermatological evaluation

The dermatolosigt evaluates presence of dandruff, excess of sebum, scalp redness or the onset of itching sensation.

Box 2 - Hair cycle
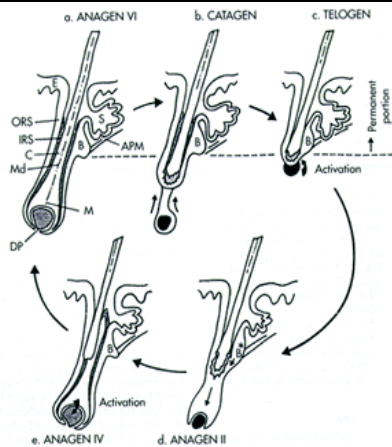
Human hair grows is a continuous cyclic pattern of growth and rest known as the "hair growth cycle".

Anagen phase. Growth of the hair shaft occurs only during the anagen phase which is divided into six stages. During anagen stages I-V, the cells of the hair matrix grow downwards into the dermis along a preformed track of specialized dermal sheath cells, which is first established during embryogenesis. The down-growth is associated with significant proteolysis of the dermis by metalloproteinases to make way for the lower follicle. Once the lower follicle has completely regenerated, growth of the new hair shaft begin, and the anagen stage VI is directed towards producing the hair shaft emerging from the skin surface. Both the duration of the anagen phase and the speed of growth determine the length of the hair.

Catagen phase. The anagen phase is followed by a catagen phase. In this phase, hair growth is arrested by a sudden apoptotic process followed by a shrinkage of the lower epithelial follicle and dermal papilla. The dermal papilla is released from the hair bulb, accompanied by degradation of the lower follicle. The end of catagen is accompanied by an increase in collagen synthesis from surrounding fibroblasts to "fill in" the dermal perifollicular track.

Telogen. The telogen follicle is almost quiescent and contains the so-called club hair. The follicle is only composed of the permanent portion, and it keeps all its connection with the sebaceous and apocrine glands. At the end of the telogen phase, the hair shaft is loosely anchored to the outer root sheath and may be removed by combing or washing of the hair. It is also believed to be pushed as a new anagen VI hair emerges. Telopotosis and exogen are the terms describing the shedding of the club hair.

1.6.5. Self assessment

At the end of the study period subjects are asked to express their opinion answering to the following questionnaire:

no.	Question	Score									
1.	Have you noticed a descrease of hairs loss?	1	2	3	4	5	6	7	8	9	10
2.	Have you noticed the growth of new hairs?	1	2	3	4	5	6	7	8	9	10
3.	Have you noticed an increase of hairs thickness?	1	2	3	4	5	6	7	8	9	10
4.	Does you hairs grow faster?	1	2	3	4	5	6	7	8	9	10
5.	Has the treatment reinforced your hairs?	1	2	3	4	5	6	7	8	9	10

1.7. Results and statistics

1.7.1. Results

The results are reported in their respective units in tables.

1) The mean values is calculated as:

$$m = \frac{\sum_{1}^{n} p}{n} \quad [1]$$

Where:

p, is the value of the parameter to be analyzed

n, is the number of subjects participating in the trial.

2) The standard error of the mean is calculated as:

$$SEM = \frac{\sqrt{\dfrac{\sum_{1}^{n}(p_i^2) - \dfrac{\sum_{1}^{n} p_i^2}{n}}{(n-1)}}}{\sqrt{n}} \quad [2]$$

Where:

p, is the value of the parameter to be analyzed

n, is the number of subjects participating in the trial.

3) The mean percentage variations were calculated as:

$$\overline{Var(\%)} = \sum_{1}^{n} \frac{p_t - p_0}{p_0} \quad [3]$$

Where:

n, is the number of subjects participating in the trial.

p_o, is the value of the parameter to be analyzed at T0

p_t , is the value of the parameter to be analyzed after 1,2,3,4,5 or 6 month of products use.

All the calculations are done using a Microsoft® Excel worksheet.

1.7.2. Statistic

1.7.2.1. Intragroup statistic (Time course)

1.7.2.1.1. Pull test data

Pull test data are non parametric data and are submitted to Wilcoxon Signed-Rank test.

1.7.2.1.2. Phototricogram data

Phototricogram data are parametric data and are submitted to Repeated Measured Analysis of Variance (RM-ANOVA) followed t test of Student.

1.7.2.2. Intergroup statistic (Active vs. Placebo)

1.7.2.2.1. Pull test data

Pull test data are non parametric data and are submitted to Wilcoxon Kruskal-Wallis one-way analysis of variance on ranks.

1.7.2.2.2. Phototricogram data

Phototricogram data are parametric data and are submitted to Multivariate Analysis of Variance followed by t test of Student.

1.7.2.2.3. Self-assessment data

Self assessment data are non parametric data and are submitted to Wilcoxon Kruskal-Wallis one-way analysis of variance on ranks.

1.8. Attachments

Attachment 1. Randomization list
Attachment 2. Statistical analysis

1.9. Abbreviations

AGA   Androgenetic Alopecia
Anh   Anagen hairs
n.a.   Not assessed
TE   Telogen Effluvium
TEh   Telogen hairs
TOh   Total hairs (number of hairs in the phototricogram area)
%AN   Percentage of Anagen hairs (ratio between Anagen hairs and Total hairs)
%TE   Percentage of Telogen hairs (ratio between Telogen hairs and Total hairs)

RESULTS & GRAPHS: PULL TEST - SHAMPOO (ACTIVE)

Table 1. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as the number of hairs lost during the pull test.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6		T1	T2	T3	T4	T5	T6
Subj. 001	AGA	4	6	6	3	4	3	1		2	2	-1	0	-1	-3
Subj. 005	TE	12	8	6	3	3	3	3		-4	-6	-9	-9	-9	-9
Subj. 007	AGA	5	4	4	2	4	3	2		-1	-1	-3	-1	-2	-3
Subj. 008	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 018	TE	11	7	5	4	3	2	2		-4	-6	-7	-8	-9	-9
Subj. 020	TE	13	9	6	5	2	2	1		-4	-7	-8	-11	-11	-12
Subj. 023	AGA	9	6	6	2	4	3	2		-3	-3	-7	-5	-6	-7
Subj. 026	TE	11	8	7	4	3	2	1		-3	-4	-7	-8	-9	-10
Subj. 027	AGA	8	11	8	3	2	2	0		3	0	-5	-6	-6	-8
Subj. 030	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 042	AGA	4	5	6	4	2	2	0		1	2	0	-2	-2	-4
Subj. 044	TE	13	10	8	5	4	3	1		-3	-5	-8	-9	-10	-12
Subj. 047	TE	14	11	10	6	3	3	2		-3	-4	-8	-11	-11	-12
Subj. 053	TE	12	4	4	2	3	2	2		-8	-8	-10	-9	-10	-10
Subj. 056	AGA	7	9	7	4	2	2	2		2	0	-3	-5	-5	-5
Subj. 063	AGA	9	7	6	4	2	2	0		-2	-3	-5	-7	-7	-9
Subj. 065	AGA	6	5	6	3	4	3	2		-1	0	-3	-2	-3	-4
Subj. 068	TE	12	7	6	3	2	1	2		-5	-6	-9	-10	-11	-10
Subj. 071	TE	14	8	6	3	2	2	0		-6	-8	-11	-12	-12	-14
Subj. 076	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 085	TE	13	7	6	4	2	3	1		-6	-7	-9	-11	-10	-12
Subj. 086	AGA	4	5	5	6	4	4	2		1	1	2	0	0	-2
Subj. 096	TE	12	8	8	5	3	2	0		-4	-4	-7	-9	-10	-12
Subj. 101	TE	14	8	7	4	2	2	2		-6	-7	-10	-12	-12	-12
Subj. 105	AGA	9	6	6	3	1	1	0		-3	-3	-6	-8	-8	-9
Subj. 108	TE	12	5	7	4	4	2	2		-7	-5	-8	-8	-10	-10
Subj. 115	TE	12	9	6	5	2	2	2		-3	-6	-7	-10	-10	-10
Subj. 116	TE	13	7	5	4	4	2	2		-6	-8	-9	-9	-11	-11
Subj. 117	AGA	9	8	8	4	4	2	0		-1	-1	-5	-5	-7	-9
Subj. 119	TE	15	13	13	8	5	6	3		-2	-2	-7	-10	-9	-12
Mean		**10,3**	**7,4**	**6,6**	**4,0**	**3,0**	**2,4**	**1,4**		**-2,8**	**-3,7**	**-6,3**	**-7,3**	**-7,8**	**-8,9**
SEM		0,7	0,4	0,4	0,3	0,2	0,2	0,2							

(Second block of columns labeled: VARIATION VS. T0)

Legend - n.a., indicates that was not possible to perform the pull test beacuase hairs were short.

Graph 1. The graph shows the mean data obtained for the reported parameter. Data are reported as mean ± SEM.

Statistical analysis *(Wilcoxon Signed-Rank test).*
T1 vs. T0: p<0,001
T2 vs. T0: p<0,001
T3 vs. T0: p<0,001
T4 vs. T0: p<0,001
T5 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
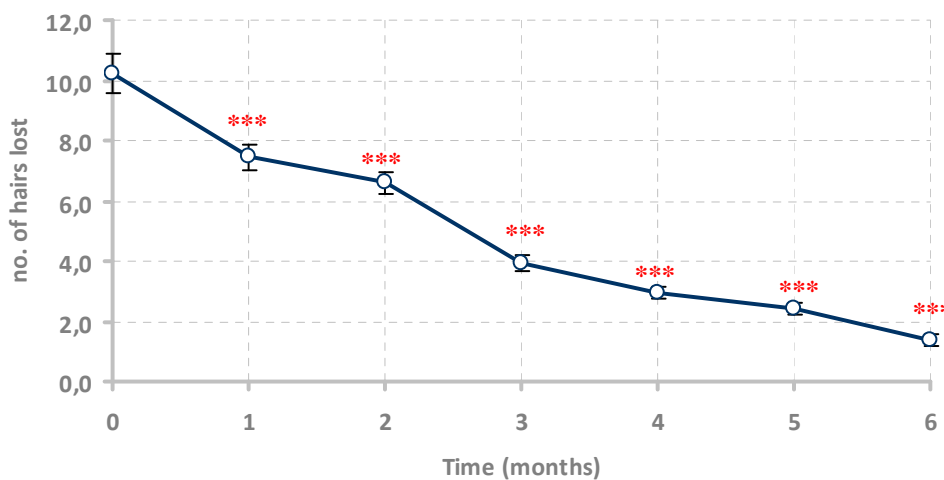*, p< 0,05
**, p< 0,01
***, p< 0,001

RESULTS & GRAPHS: PULL TEST - SOLUTION (ACTIVE)

Table 2. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as the number of hairs lost during the pull test.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6		T1	T2	T3	T4	T5	T6
Subj. 003	TE	13	5	4	3	2	2	2		-8	-9	-10	-11	-11	-11
Subj. 009	AGA	5	8	4	3	1	2	1		3	-1	-2	-4	-3	-4
Subj. 014	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 015	AGA	5	4	2	1	1	1	1		-1	-3	-4	-4	-4	-4
Subj. 024	TE	11	4	3	2	1	2	1		-7	-8	-9	-10	-9	-10
Subj. 031	TE	9	3	4	3	2	1	0		-6	-5	-6	-7	-8	-9
Subj. 035	AGA	5	5	3	2	1	2	2		0	-2	-3	-4	-3	-3
Subj. 039	TE	13	3	2	3	1	0	0		-10	-11	-10	-12	-13	-13
Subj. 041	TE	11	4	2	2	1	1	1		-7	-9	-9	-10	-10	-10
Subj. 048	TE	14	6	4	3	2	2	2		-8	-10	-11	-12	-12	-12
Subj. 052	TE	7	5	5	4	3	2	1		-2	-2	-3	-4	-5	-6
Subj. 058	TE	10	9	9	6	2	3	2		-1	-1	-4	-8	-7	-8
Subj. 064	TE	7	4	3	2	3	2	1		-3	-4	-5	-4	-5	-6
Subj. 066	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 070	AGA	5	5	4	3	1	0	0		0	-1	-2	-4	-5	-5
Subj. 072	AGA	5	6	5	4	1	2	2		1	0	-1	-4	-3	-3
Subj. 075	TE	14	7	7	6	0	1	0		-7	-7	-8	-14	-13	-14
Subj. 078	TE	10	6	4	4	1	0	0		-4	-6	-6	-9	-10	-10
Subj. 080	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 081	TE	7	3	3	3	1	0	0		-4	-4	-4	-6	-7	-7
Subj. 082	AGA	6	6	5	2	1	2	2		0	-1	-4	-5	-4	-4
Subj. 089	TE	7	3	3	2	2	0	0		-4	-4	-5	-5	-7	-7
Subj. 090	TE	9	3	4	2	2	3	2		-6	-5	-7	-7	-6	-7
Subj. 091	AGA	5	5	4	3	2	2	1		0	-1	-2	-3	-3	-4
Subj. 094	AGA	6	9	7	5	1	2	2		3	1	-1	-5	-4	-4
Subj. 095	AGA	5	7	4	3	1	1	0		2	-1	-2	-4	-4	-5
Subj. 098	TE	12	5	5	2	2	0	0		-7	-7	-10	-10	-12	-12
Subj. 103	TE	11	4	4	2	1	2	2		-7	-7	-9	-10	-9	-9
Subj. 110	AGA	6	8	7	5	3	5	4		2	1	-1	-3	-1	-2
Subj. 120	TE	12	3	2	0	1	0	1		-9	-10	-12	-11	-12	-11
Mean		**8,5**	**5,2**	**4,2**	**3,0**	**1,5**	**1,5**	**1,1**		**-3,3**	**-4,3**	**-5,6**	**-7,0**	**-7,0**	**-7,4**
SEM		0,6	0,4	0,3	0,3	0,1	0,2	0,2							

(Second block header: VARIATION VS. T0)

Legend - n.a., indicates that was not possible to perform the pull test beacuase hairs were short.

Graph 2. The graph shows the mean data obtained for the reported parameter. Data are reported as mean ± SEM.

Statistical analysis
(Wilcoxon Signed-Rank test).
T1 vs. T0: p<0,01
T2 vs. T0: p<0,001
T3 vs. T0: p<0,001
T4 vs. T0: p<0,001
T5 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

RESULTS & GRAPHS: PULL TEST - SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

Table 3. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as the number of hairs lost during the pull test.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6		T1	T2	T3	T4	T5	T6
Subj. 002	TE	14	6	3	2	2	1	1		-8	-11	-12	-12	-13	-13
Subj. 011	TE	13	5	3	2	1	1	1		-8	-10	-11	-12	-12	-12
Subj. 012	AGA	4	5	4	3	2	1	0		1	0	-1	-2	-3	-4
Subj. 013	AGA	6	6	7	5	3	1	0		0	1	-1	-3	-5	-6
Subj. 016	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 019	TE	14	7	6	4	2	2	1		-7	-8	-10	-12	-12	-13
Subj. 022	TE	8	6	4	3	0	1	1		-2	-4	-5	-8	-7	-7
Subj. 025	TE	9	5	3	2	1	0	1		-4	-6	-7	-8	-9	-8
Subj. 028	AGA	5	4	3	2	2	0	0		-1	-2	-3	-3	-5	-5
Subj. 032	AGA	4	2	1	0	1	0	1		-2	-3	-4	-3	-4	-3
Subj. 033	TE	16	6	5	3	2	1	1		-10	-11	-13	-14	-15	-15
Subj. 036	AGA	5	3	3	3	1	0	1		-2	-2	-2	-4	-5	-4
Subj. 037	TE	16	6	4	2	3	4	2		-10	-12	-14	-13	-12	-14
Subj. 038	AGA	6	5	5	3	2	2	1		-1	-1	-3	-4	-4	-5
Subj. 040	AGA	5	3	2	1	1	1	0		-2	-3	-4	-4	-4	-5
Subj. 043	TE	15	8	6	5	3	2	1		-7	-9	-10	-12	-13	-14
Subj. 045	TE	13	7	5	3	1	2	2		-6	-8	-10	-12	-11	-11
Subj. 060	TE	14	6	4	2	0	1	1		-8	-10	-12	-14	-13	-13
Subj. 067	TE	15	6	3	2	0	1	1		-9	-12	-13	-15	-14	-14
Subj. 069	AGA	6	3	2	1	2	0	0		-3	-4	-5	-4	-6	-6
Subj. 074	AGA	5	2	2	2	0	0	1		-3	-3	-3	-5	-5	-4
Subj. 079	TE	15	6	4	3	1	1	0		-9	-11	-12	-14	-14	-15
Subj. 088	TE	15	8	6	4	0	0	0		-7	-9	-11	-15	-15	-15
Subj. 093	TE	14	7	3	3	1	1	0		-7	-11	-11	-13	-13	-14
Subj. 099	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 100	TE	13	7	4	3	1	0	1		-6	-9	-10	-12	-13	-12
Subj. 102	AGA	7	5	5	2	0	0	0		-2	-2	-5	-7	-7	-7
Subj. 111	TE	16	8	4	2	2	1	0		-8	-12	-14	-14	-15	-16
Subj. 114	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 118	TE	15	9	6	4	2	1	1		-6	-9	-11	-13	-14	-14
Mean		**10,7**	**5,6**	**4,0**	**2,6**	**1,3**	**0,9**	**0,7**		**-5,1**	**-6,7**	**-8,0**	**-9,3**	**-9,7**	**-10,0**
SEM		0,9	0,4	0,3	0,2	0,2	0,2	0,1							

(VARIATION VS. T0)

Legend - n.a., indicates that was not possible to perform the pull test beacuase hairs were short.

Graph 3. The graph shows the mean data obtained for the reported parameter. Data are reported as mean ± SEM.

Statistical analysis
(Wilcoxon Signed-Rank test).
T1 vs. T0: p<0,001
T2 vs. T0: p<0,001
T3 vs. T0: p<0,001
T4 vs. T0: p<0,001
T5 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
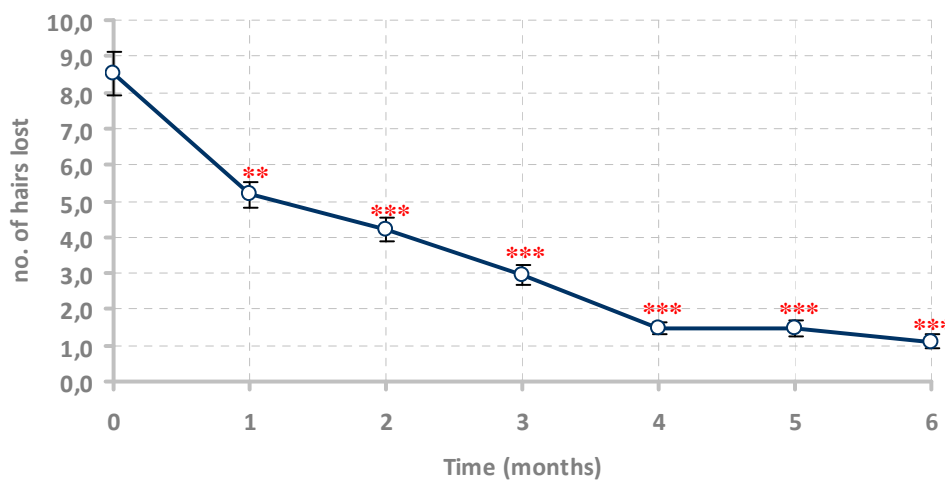*, p< 0,05
**, p< 0,01
***, p< 0,001

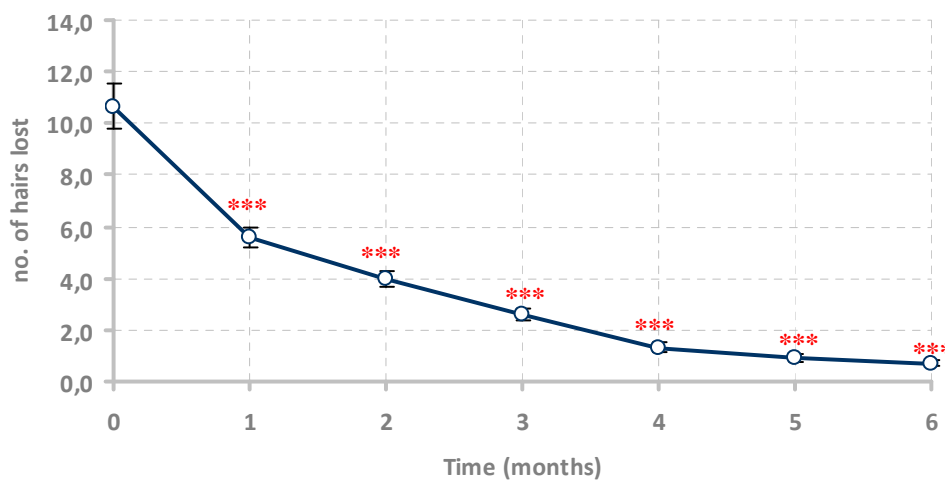## RESULTS & GRAPHS: PULL TEST - SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Table 4. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as the number of hairs lost during the pull test.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6		T1	T2	T3	T4	T5	T6
Subj. 004	AGA	8	8	7	5	5	4	3		0	-1	-3	-3	-4	-5
Subj. 006	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 010	TE	10	6	5	5	6	4	3		-4	-5	-5	-4	-6	-7
Subj. 017	TE	12	11	13	12	10	10	8		-1	1	0	-2	-2	-4
Subj. 021	AGA	8	9	8	8	8	7	8		1	0	0	0	-1	0
Subj. 029	AGA	5	4	5	6	7	7	6		-1	0	1	2	2	1
Subj. 034	TE	15	14	12	11	14	12	10		-1	-3	-4	-1	-3	-5
Subj. 046	TE	14	16	15	13	8	8	9		2	1	-1	-6	-6	-5
Subj. 049	AGA	6	5	5	6	9	7	5		-1	-1	0	3	1	-1
Subj. 050	TE	14	10	8	10	12	12	10		-4	-6	-4	-2	-2	-4
Subj. 051	AGA	5	6	5	4	7	5	4		1	0	-1	2	0	-1
Subj. 054	TE	12	8	7	8	7	7	6		-4	-5	-4	-5	-5	-6
Subj. 055	AGA	4	5	5	6	6	4	5		1	1	2	2	0	1
Subj. 057	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 059	AGA	6	5	5	6	5	5	6		-1	-1	0	-1	-1	0
Subj. 061	TE	12	7	6	4	7	7	5		-5	-6	-8	-5	-5	-7
Subj. 062	TE	11	12	11	8	6	6	5		1	0	-3	-5	-5	-6
Subj. 073	TE	15	14	12	10	11	12	9		-1	-3	-5	-4	-3	-6
Subj. 077	AGA	6	7	8	7	6	5	4		1	2	1	0	-1	-2
Subj. 083	TE	15	15	13	14	10	11	8		0	-2	-1	-5	-4	-7
Subj. 084	AGA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Subj. 087	TE	8	6	5	6	6	5	4		-2	-3	-2	-2	-3	-4
Subj. 092	TE	11	9	8	9	8	8	5		-2	-3	-2	-3	-3	-6
Subj. 097	TE	9	8	8	10	12	12	10		-1	-1	1	3	3	1
Subj. 104	TE	10	8	9	7	5	5	4		-2	-1	-3	-5	-5	-6
Subj. 106	AGA	6	5	6	5	7	6	5		-1	0	-1	1	0	-1
Subj. 107	AGA	5	3	3	2	3	4	5		-2	-2	-3	-2	-1	0
Subj. 109	AGA	8	6	5	5	3	3	2		-2	-3	-3	-5	-5	-6
Subj. 112	TE	10	8	6	6	4	4	3		-2	-4	-4	-6	-6	-7
Subj. 113	TE	12	10	8	7	6	5	4		-2	-4	-5	-6	-7	-8
Mean		**9,5**	**8,3**	**7,7**	**7,4**	**7,3**	**6,9**	**5,8**		**-1,2**	**-1,8**	**-2,1**	**-2,2**	**-2,7**	**-3,7**
SEM		0,7	0,7	0,6	0,6	0,5	0,6	0,5							

(The right-hand block is labelled **VARIATION VS. T0**.)

Legend - n.a., indicates that was not possible to perform the pull test beacuase hairs were short.

Graph 4. The graph shows the mean data obtained for the reported parameter. Data are reported as mean ± SEM.

Statistical analysis
(Wilcoxon Signed-Rank test).
T1 vs. T0: p<0,01
T2 vs. T0: p<0,001
T3 vs. T0: p<0,001
T4 vs. T0: p<0,01
T5 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
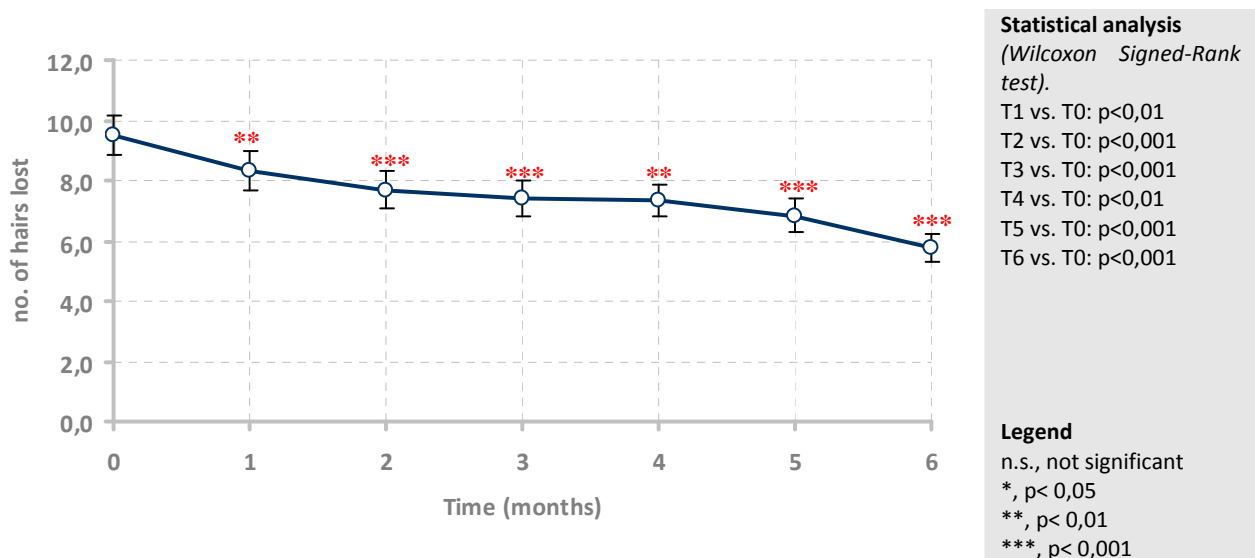n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

COMPARATIVE GRAPH: PULL TEST | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Graph 5. The graph here below reports the mean % decrease obtained for each tested product(s). Data are reported as mean % variation.
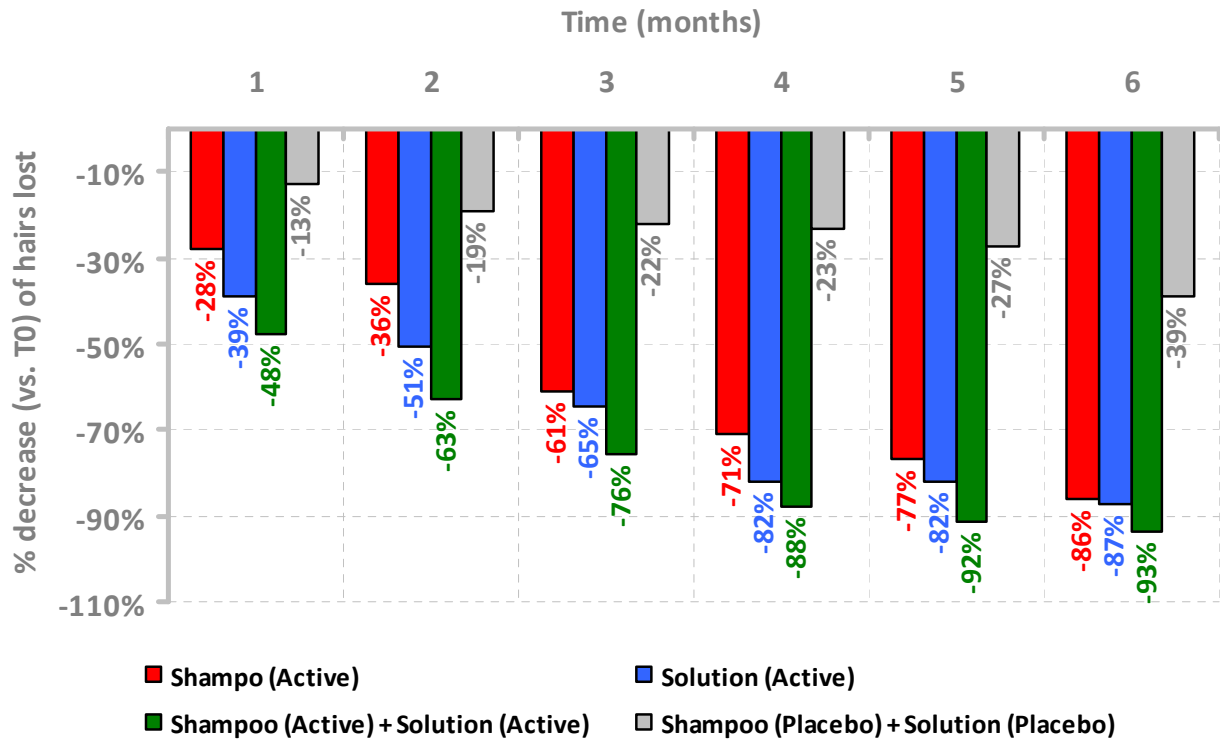
INTERGROUP STATISTIC – SUMMARY TABLE									
1 Month	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**2 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0.225896	0.000576	0.030580	S(A)	•••	0,033346	0.000043	0.042960
L(A)	•••	•••	0,742383	0.037894	L(A)	•••	•••	0,046646	0.000403
S(A)+L(A)	•••	•••	•••	0.000001	S(A)+P(A)	•••	•••	•••	0.000001
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
3 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**4 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0.550608	0.001593	0.000002	S(A)	•••	0.002537	0.000200	0.000000
L(A)	•••	•••	0,037894	0.000001	L(A)	•••	•••	0,071987	0.000000
S(A)+L(A)	•••	•••	•••	0.000000	S(A)+P(A)	•••	•••	•••	0.000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
5 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**6 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0.191502	0.000002	0.000000	S(A)	•••	0.883093	0.015435	0.000000
L(A)	•••	•••	0,011544	0.000000	L(A)	•••	•••	0,054820	0.000000
S(A)+L(A)	•••	•••	•••	0.000000	S(A)+P(A)	•••	•••	•••	0.000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
Legend: S(A), Shampoo (Active)	L(A), Solution (Active)	S(A)+L(A), Shampoo (Active) + Solution (Active)	S(P)+L(P), Shampoo (Placebo) + Solution (Placebo)						

RESULTS: PHOTOTRICOGRAM - SHAMPOO (ACTIVE)

Table 5. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as: number of hairs (TOh). Anagen hairs (ANh). Telogen hairsv (TEh). % Anagen hairs (%AN). and % Telogen hairs (%TEl).

Vol. no	Group	T0 TOh	ANh	TEh	%AN	%TE	T2 TOh	ANh	TEh	%AN	%TE	T4 TOh	ANh	TEh	%AN	%TE	T6 TOh	ANh	TEh	%AN	%TE
Subj. 001	AGA	202	125	77	61,9%	38,1%	206	131	75	63,6%	36,4%	207	145	62	70,0%	30,0%	208	151	57	72,6%	27,4%
Subj. 005	TE	236	168	68	71,2%	28,8%	228	181	47	79,4%	20,6%	230	185	45	80,4%	19,6%	232	191	41	82,3%	17,7%
Subj. 007	AGA	170	103	67	60,6%	39,4%	172	122	50	70,9%	29,1%	178	130	48	73,0%	27,0%	177	132	45	74,6%	25,4%
Subj. 008	AGA	216	145	71	67,1%	32,9%	218	150	68	68,8%	31,2%	220	166	54	75,5%	24,5%	224	177	47	79,0%	21,0%
Subj. 018	TE	245	159	86	64,9%	35,1%	234	180	54	76,9%	23,1%	237	191	46	80,6%	19,4%	238	188	50	79,0%	21,0%
Subj. 020	TE	203	134	69	66,0%	34,0%	202	162	40	80,2%	19,8%	210	184	26	87,6%	12,4%	222	191	31	86,0%	14,0%
Subj. 023	AGA	191	115	76	60,2%	39,8%	198	121	77	61,1%	38,9%	196	132	64	67,3%	32,7%	202	138	64	68,3%	31,7%
Subj. 026	TE	248	159	89	64,1%	35,9%	252	184	68	73,0%	27,0%	255	192	63	75,3%	24,7%	256	198	58	77,3%	22,7%
Subj. 027	AGA	168	109	59	64,9%	35,1%	165	121	44	73,3%	26,7%	170	131	39	77,1%	22,9%	175	142	33	81,1%	18,9%
Subj. 030	AGA	172	112	60	65,1%	34,9%	171	118	53	69,0%	31,0%	174	135	39	77,6%	22,4%	182	142	40	78,0%	22,0%
Subj. 042	AGA	211	120	91	56,9%	43,1%	215	123	92	57,2%	42,8%	216	133	83	61,6%	38,4%	220	136	84	61,8%	38,2%
Subj. 044	TE	256	178	78	69,5%	30,5%	260	202	58	77,7%	22,3%	255	211	44	82,7%	17,3%	248	225	23	90,7%	9,3%
Subj. 047	TE	221	131	90	59,3%	40,7%	223	145	78	65,0%	35,0%	228	152	76	66,7%	33,3%	232	161	71	69,4%	30,6%
Subj. 053	TE	208	148	60	71,2%	28,8%	214	193	21	90,2%	9,8%	210	195	15	92,9%	7,1%	218	198	20	90,8%	9,2%
Subj. 056	AGA	236	112	124	47,5%	52,5%	228	118	110	51,8%	48,2%	238	120	118	50,4%	49,6%	236	125	111	53,0%	47,0%
Subj. 063	AGA	225	138	87	61,3%	38,7%	230	144	86	62,6%	37,4%	230	152	78	66,1%	33,9%	232	158	74	68,1%	31,9%
Subj. 065	AGA	214	145	69	67,8%	32,2%	218	150	68	68,8%	31,2%	221	161	60	72,9%	27,1%	218	172	46	78,9%	21,1%
Subj. 068	TE	198	124	74	62,6%	37,4%	203	133	70	65,5%	34,5%	207	136	71	65,7%	34,3%	205	155	50	75,6%	24,4%
Subj. 071	TE	206	151	55	73,3%	26,7%	211	165	46	78,2%	21,8%	212	178	34	84,0%	16,0%	214	194	20	90,7%	9,3%
Subj. 076	AGA	203	126	77	62,1%	37,9%	208	132	76	63,5%	36,5%	213	141	72	66,2%	33,8%	215	155	60	72,1%	27,9%
Subj. 085	TE	241	160	81	66,4%	33,6%	238	180	58	75,6%	24,4%	242	184	58	76,0%	24,0%	238	197	41	82,8%	17,2%
Subj. 086	AGA	208	145	63	69,7%	30,3%	210	152	58	72,4%	27,6%	215	155	60	72,1%	27,9%	216	169	47	78,2%	21,8%
Subj. 096	TE	213	151	62	70,9%	29,1%	213	162	51	76,1%	23,9%	215	173	42	80,5%	19,5%	219	191	28	87,2%	12,8%
Subj. 101	TE	224	158	66	70,5%	29,5%	226	163	63	72,1%	27,9%	224	175	49	78,1%	21,9%	225	198	27	88,0%	12,0%
Subj. 105	AGA	184	121	63	65,8%	34,2%	190	136	54	71,6%	28,4%	191	138	53	72,3%	27,7%	194	148	46	76,3%	23,7%
Subj. 108	TE	236	175	61	74,2%	25,8%	228	178	50	78,1%	21,9%	234	195	39	83,3%	16,7%	235	201	34	85,5%	14,5%
Subj. 115	TE	202	136	66	67,3%	32,7%	210	183	27	87,1%	12,9%	212	198	14	93,4%	6,6%	220	210	10	95,5%	4,5%
Subj. 116	TE	218	154	64	70,6%	29,4%	220	173	47	78,6%	21,4%	223	188	35	84,3%	15,7%	224	197	27	87,9%	12,1%
Subj. 117	AGA	186	102	84	54,8%	45,2%	191	106	85	55,5%	44,5%	202	121	81	59,9%	40,1%	208	141	67	67,8%	32,2%
Subj. 119	TE	236	158	78	66,9%	33,1%	245	165	80	67,3%	32,7%	250	178	72	71,2%	28,8%	245	194	51	79,2%	20,8%
Mean		212,6	138,7	73,8	65,2%	34,8%	214,2	152,4	61,8	71,0%	29,0%	217,2	162,5	54,7	74,8%	25,2%	219,3	172,5	46,8	78,6%	21,4%
SEM		4,3	3,9	2,6	1,1%	1,1%	4,1	4,8	3,5	1,6%	1,6%	4,0	4,9	4,0	1,8%	1,8%	3,6	5,0	3,9	1,7%	1,7%

DATA SUMMARY

	AGA	TE		AGA	TE	Variation vs. T0 AGA	TE		AGA	TE	Variation vs. T0 AGA	TE		AGA	TE	Variation vs. T0 AGA	TE
Toh	199,0	224,4	Toh	201,4	225,4	2,4	1,0	Toh	205,1	227,8	6,1	3,3	Toh	207,6	229,4	8,6	5,0
ANh	122,7	152,8	ANh	130,3	171,8	7,6	19,1	ANh	140,0	182,2	17,3	29,4	ANh	149,0	193,1	26,3	40,3
TEh	76,3	71,7	TEh	71,1	53,6	-5,1	-18,1	TEh	65,1	45,6	-11,2	-26,1	TEh	58,6	36,4	-17,6	-35,3
% AN	61,8%	68,1%	% AN	65,0%	76,3%	3,2%	8,3%	% AN	68,7%	80,2%	6,9%	12,1%	% AN	72,1%	84,3%	10,3%	16,2%
% TE	38,2%	31,9%	% TE	35,0%	23,7%	-3,2%	-8,3%	% TE	31,3%	19,8%	-6,9%	-12,1%	% TE	27,9%	15,7%	-10,3%	-16,2%

RESULTS: PHOTOTRICOGRAM - SOLUTION (ACTIVE)

Table 6. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as: number of hairs (TOh). Anagen hairs (ANh). Telogen hairsv (TEh). % Anagen hairs (%AN). and % Telogen hairs (%TE).

Vol. no	Group	T0 TOh	T0 ANh	T0 TEh	T0 %AN	T0 %TE	T2 TOh	T2 ANh	T2 TEh	T2 %AN	T2 %TE	T4 TOh	T4 ANh	T4 TEh	T4 %AN	T4 %TE	T6 TOh	T6 ANh	T6 TEh	T6 %AN	T6 %TE
Subj. 003	TE	245	154	91	62,9%	37,1%	248	182	66	73,4%	26,6%	251	194	57	77,3%	22,7%	256	210	46	82,0%	18,0%
Subj. 009	AGA	212	138	74	65,1%	34,9%	218	152	66	69,7%	30,3%	224	160	64	71,4%	28,6%	226	165	61	73,0%	27,0%
Subj. 014	AGA	220	115	105	52,3%	47,7%	221	126	95	57,0%	43,0%	225	138	87	61,3%	38,7%	231	142	89	61,5%	38,5%
Subj. 015	AGA	201	108	93	53,7%	46,3%	198	134	64	67,7%	32,3%	210	142	68	67,6%	32,4%	208	155	53	74,5%	25,5%
Subj. 024	TE	232	132	100	56,9%	43,1%	228	168	60	73,7%	26,3%	241	181	60	75,1%	24,9%	240	194	46	80,8%	19,2%
Subj. 031	TE	212	145	67	68,4%	31,6%	212	176	36	83,0%	17,0%	222	184	38	82,9%	17,1%	225	188	37	83,6%	16,4%
Subj. 035	AGA	195	107	88	54,9%	45,1%	201	128	73	63,7%	36,3%	198	135	63	68,2%	31,8%	201	144	57	71,6%	28,4%
Subj. 039	TE	184	121	63	65,8%	34,2%	186	152	34	81,7%	18,3%	190	160	30	84,2%	15,8%	194	171	23	88,1%	11,9%
Subj. 041	TE	251	173	78	68,9%	31,1%	248	204	44	82,3%	17,7%	255	210	45	82,4%	17,6%	254	215	39	84,6%	15,4%
Subj. 048	TE	202	158	44	78,2%	21,8%	198	182	16	91,9%	8,1%	201	192	9	95,5%	4,5%	202	195	7	96,5%	3,5%
Subj. 052	TE	186	145	41	78,0%	22,0%	192	150	42	78,1%	21,9%	191	155	36	81,2%	18,8%	196	165	31	84,2%	15,8%
Subj. 058	TE	256	184	72	71,9%	28,1%	261	196	65	75,1%	24,9%	260	198	62	76,2%	23,8%	255	210	45	82,4%	17,6%
Subj. 064	TE	202	155	47	76,7%	23,3%	203	182	21	89,7%	10,3%	211	180	31	85,3%	14,7%	218	194	24	89,0%	11,0%
Subj. 066	AGA	212	126	86	59,4%	40,6%	209	158	51	75,6%	24,4%	215	171	44	79,5%	20,5%	218	182	36	83,5%	16,5%
Subj. 070	AGA	204	129	75	63,2%	36,8%	213	145	68	68,1%	31,9%	211	152	59	72,0%	28,0%	215	160	55	74,4%	25,6%
Subj. 072	AGA	183	121	62	66,1%	33,9%	201	132	69	65,7%	34,3%	206	141	65	68,4%	31,6%	210	152	58	72,4%	27,6%
Subj. 075	TE	245	178	67	72,7%	27,3%	236	206	30	87,3%	12,7%	248	210	38	84,7%	15,3%	251	220	31	87,6%	12,4%
Subj. 078	TE	210	142	68	67,6%	32,4%	212	185	27	87,3%	12,7%	211	188	23	89,1%	10,9%	213	194	19	91,1%	8,9%
Subj. 080	AGA	196	128	68	65,3%	34,7%	198	140	58	70,7%	29,3%	201	151	50	75,1%	24,9%	205	165	40	80,5%	19,5%
Subj. 081	TE	175	125	50	71,4%	28,6%	176	160	16	90,9%	9,1%	178	161	17	90,4%	9,6%	181	172	9	95,0%	5,0%
Subj. 082	AGA	205	122	83	59,5%	40,5%	212	131	81	61,8%	38,2%	213	135	78	63,4%	36,6%	215	144	71	67,0%	33,0%
Subj. 089	TE	181	123	58	68,0%	32,0%	184	165	19	89,7%	10,3%	185	168	17	90,8%	9,2%	188	171	17	91,0%	9,0%
Subj. 090	TE	232	166	66	71,6%	28,4%	241	193	48	80,1%	19,9%	243	194	49	79,8%	20,2%	250	210	40	84,0%	16,0%
Subj. 091	AGA	205	125	80	61,0%	39,0%	206	131	75	63,6%	36,4%	209	138	71	66,0%	34,0%	210	142	68	67,6%	32,4%
Subj. 094	AGA	188	107	81	56,9%	43,1%	184	108	76	58,7%	41,3%	194	125	69	64,4%	35,6%	196	141	55	71,9%	28,1%
Subj. 095	AGA	196	113	83	57,7%	42,3%	192	114	78	59,4%	40,6%	206	132	74	64,1%	35,9%	208	150	58	72,1%	27,9%
Subj. 098	TE	241	159	82	66,0%	34,0%	242	192	50	79,3%	20,7%	250	210	40	84,0%	16,0%	255	225	30	88,2%	11,8%
Subj. 103	TE	260	178	82	68,5%	31,5%	258	201	57	77,9%	22,1%	265	221	44	83,4%	16,6%	268	240	28	89,6%	10,4%
Subj. 110	AGA	215	127	88	59,1%	40,9%	220	130	90	59,1%	40,9%	225	151	74	67,1%	32,9%	226	165	61	73,0%	27,0%
Subj. 120	TE	212	158	54	74,5%	25,5%	215	182	33	84,7%	15,3%	216	205	11	94,9%	5,1%	219	215	4	98,2%	1,8%
Mean		211,9	138,7	73,2	65,4%	34,6%	213,8	160,2	53,6	74,9%	25,1%	218,5	169,4	49,1	77,5%	22,5%	221,1	179,9	41,3	81,3%	18,7%
SEM		4,3	4,2	3,0	1,3%	1,3%	4,2	5,2	4,1	2,0%	2,0%	4,3	5,1	3,9	1,8%	1,8%	4,2	5,3	3,7	1,7%	1,7%

DATA SUMMARY

	T0 AGA	T0 TE	T2 AGA	T2 TE	T2 Variation vs. T0 AGA	T2 Variation vs. T0 TE	T4 AGA	T4 TE	T4 Variation vs. T0 AGA	T4 Variation vs. T0 TE	T6 AGA	T6 TE	T6 Variation vs. T0 AGA	T6 Variation vs. T0 TE
Toh	202,5	219,2	205,6	220,0	3,2	0,8	210,5	224,6	8,1	5,4	213,0	227,4	10,5	8,2
ANh	120,5	152,7	133,0	180,9	12,5	28,2	143,9	188,9	23,5	36,2	154,4	199,4	33,9	46,6
TEh	82,0	66,5	72,6	39,1	-9,4	-27,4	66,6	35,7	-15,4	-30,8	58,6	28,0	-23,4	-38,5
% AN	59,6%	69,9%	64,7%	82,7%	5,1%	12,8%	68,4%	84,5%	8,8%	14,7%	72,5%	88,0%	13,0%	18,1%
% TE	40,4%	30,1%	35,3%	17,3%	-5,1%	-12,8%	31,6%	15,5%	-8,8%	-14,7%	27,5%	12,0%	-13,0%	-18,1%

RESULTS: PHOTOTRICOGRAM - SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

Table 7. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as: number of hairs (TOh). Anagen hairs (ANh). Telogen hairsv (TEh). % Anagen hairs (%ANl. and % Telogen hairs (%TE).

Vol. no	Group	T0 TOh	T0 ANh	T0 TEh	T0 %AN	T0 %TE	T2 TOh	T2 ANh	T2 TEh	T2 %AN	T2 %TE	T4 TOh	T4 ANh	T4 TEh	T4 %AN	T4 %TE	T6 TOh	T6 ANh	T6 TEh	T6 %AN	T6 %TE
Subj. 002	TE	245	168	77	68,6%	31,4%	252	219	33	86,9%	13,1%	256	225	31	87,9%	12,1%	261	230	31	88,1%	11,9%
Subj. 011	TE	223	139	84	62,3%	37,7%	236	185	51	78,4%	21,6%	230	193	37	83,9%	16,1%	232	202	30	87,1%	12,9%
Subj. 012	AGA	181	103	78	56,9%	43,1%	191	114	77	59,7%	40,3%	202	135	67	66,8%	33,2%	206	140	66	68,0%	32,0%
Subj. 013	AGA	210	126	84	60,0%	40,0%	207	128	79	61,8%	38,2%	210	132	78	62,9%	37,1%	211	138	73	65,4%	34,6%
Subj. 016	AGA	172	101	71	58,7%	41,3%	185	105	80	56,8%	43,2%	190	125	65	65,8%	34,2%	198	131	67	66,2%	33,8%
Subj. 019	TE	242	154	88	63,6%	36,4%	233	201	32	86,3%	13,7%	241	210	31	87,1%	12,9%	245	225	20	91,8%	8,2%
Subj. 022	TE	198	143	55	72,2%	27,8%	205	174	31	84,9%	15,1%	203	178	25	87,7%	12,3%	212	189	23	89,2%	10,8%
Subj. 025	TE	240	168	72	70,0%	30,0%	248	212	36	85,5%	14,5%	245	215	30	87,8%	12,2%	244	220	24	90,2%	9,8%
Subj. 028	AGA	198	113	85	57,1%	42,9%	189	120	69	63,5%	36,5%	191	128	63	67,0%	33,0%	196	132	64	67,3%	32,7%
Subj. 032	AGA	183	109	74	59,6%	40,4%	177	138	39	78,0%	22,0%	175	150	25	85,7%	14,3%	181	168	13	92,8%	7,2%
Subj. 033	TE	184	115	69	62,5%	37,5%	190	165	25	86,8%	13,2%	190	164	26	86,3%	13,7%	188	168	20	89,4%	10,6%
Subj. 036	AGA	178	108	70	60,7%	39,3%	175	115	60	65,7%	34,3%	180	125	55	69,4%	30,6%	185	141	44	76,2%	23,8%
Subj. 037	TE	221	136	85	61,5%	38,5%	217	198	19	91,2%	8,8%	225	204	21	90,7%	9,3%	230	210	20	91,3%	8,7%
Subj. 038	AGA	198	120	78	60,6%	39,4%	203	143	60	70,4%	29,6%	210	152	58	72,4%	27,6%	211	165	46	78,2%	21,8%
Subj. 040	AGA	234	130	104	55,6%	44,4%	241	158	83	65,6%	34,4%	252	178	74	70,6%	29,4%	260	184	76	70,8%	29,2%
Subj. 043	TE	232	164	68	70,7%	29,3%	231	204	27	88,3%	11,7%	244	210	34	86,1%	13,9%	250	211	39	84,4%	15,6%
Subj. 045	TE	228	153	75	67,1%	32,9%	230	208	22	90,4%	9,6%	231	211	20	91,3%	8,7%	237	220	17	92,8%	7,2%
Subj. 060	TE	230	151	79	65,7%	34,3%	224	200	24	89,3%	10,7%	238	212	26	89,1%	10,9%	241	223	18	92,5%	7,5%
Subj. 067	TE	213	152	61	71,4%	28,6%	228	210	18	92,1%	7,9%	218	209	9	95,9%	4,1%	225	210	15	93,3%	6,7%
Subj. 069	AGA	225	138	87	61,3%	38,7%	232	172	60	74,1%	25,9%	245	195	50	79,6%	20,4%	258	213	45	82,6%	17,4%
Subj. 074	AGA	202	120	82	59,4%	40,6%	198	145	53	73,2%	26,8%	215	171	44	79,5%	20,5%	221	192	29	86,9%	13,1%
Subj. 079	TE	184	120	64	65,2%	34,8%	176	141	35	80,1%	19,9%	195	162	33	83,1%	16,9%	201	178	23	88,6%	11,4%
Subj. 088	TE	220	153	67	69,5%	30,5%	225	188	37	83,6%	16,4%	233	198	35	85,0%	15,0%	234	203	31	86,8%	13,2%
Subj. 093	TE	219	152	67	69,4%	30,6%	221	200	21	90,5%	9,5%	224	205	19	91,5%	8,5%	230	210	20	91,3%	8,7%
Subj. 099	AGA	174	101	73	58,0%	42,0%	180	131	49	72,8%	27,2%	175	138	37	78,9%	21,1%	184	165	19	89,7%	10,3%
Subj. 100	TE	255	164	91	64,3%	35,7%	243	215	28	88,5%	11,5%	261	231	30	88,5%	11,5%	268	244	24	91,0%	9,0%
Subj. 102	AGA	180	112	68	62,2%	37,8%	193	136	57	70,5%	29,5%	206	145	61	70,4%	29,6%	211	162	49	76,8%	23,2%
Subj. 111	TE	236	145	91	61,4%	38,6%	228	201	27	88,2%	11,8%	238	215	23	90,3%	9,7%	241	218	23	90,5%	9,5%
Subj. 114	AGA	215	132	83	61,4%	38,6%	203	142	61	70,0%	30,0%	215	165	50	76,7%	23,3%	223	191	32	85,7%	14,3%
Subj. 118	TE	251	173	78	68,9%	31,1%	263	226	37	85,9%	14,1%	261	230	31	88,1%	11,9%	265	232	33	87,5%	12,5%
Mean		212,4	135,4	76,9	63,5%	36,5%	214,1	169,8	44,3	78,6%	21,4%	220,0	180,4	39,6	81,5%	18,5%	225,0	190,5	34,5	84,4%	15,6%
SEM		4,5	4,1	1,9	0,9%	0,9%	4,6	6,8	3,7	2,0%	2,0%	4,7	6,3	3,3	1,7%	1,7%	4,7	6,0	3,4	1,6%	1,6%

DATA SUMMARY

T0

	AGA	TE
Toh	196,2	224,8
ANh	116,4	150,0
TEh	79,8	74,8
% AN	59,3%	66,7%
% TE	40,7%	33,3%

T2

	AGA	TE	Variation vs. T0 AGA	Variation vs. T0 TE
Toh	198,0	226,5	1,8	1,7
ANh	134,4	196,9	18,0	46,9
TEh	63,6	29,6	-16,2	-45,2
% AN	67,8%	86,9%	8,5%	20,1%
% TE	32,2%	13,1%	-8,5%	-20,1%

T4

	AGA	TE	Variation vs. T0 AGA	Variation vs. T0 TE
Toh	205,1	231,4	8,9	6,6
ANh	149,2	204,2	32,8	54,2
TEh	55,9	27,1	-23,8	-47,6
% AN	72,8%	88,3%	13,4%	21,5%
% TE	27,2%	11,7%	-13,4%	-21,5%

T6

	AGA	TE	Variation vs. T0 AGA	Variation vs. T0 TE
Toh	211,2	235,5	15,0	10,8
ANh	163,2	211,4	46,8	61,4
TEh	47,9	24,2	-31,8	-50,6
% AN	77,4%	89,8%	18,1%	23,0%
% TE	22,6%	10,2%	-18,1%	-23,0%

# RESULTS: PHOTOTRICOGRAM - SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Table 8. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameter. Data are reported as: number of hairs (TOh), Anagen hairs (ANh), Telogen hairsv (TEh). % Anagen hairs (%ANh). and % Telogen hairs (%TEl).

Vol. no	Group	T0 TOh	T0 ANh	T0 TEh	T0 %AN	T0 %TE	T2 TOh	T2 ANh	T2 TEh	T2 %AN	T2 %TE	T4 TOh	T4 ANh	T4 TEh	T4 %AN	T4 %TE	T6 TOh	T6 ANh	T6 TEh	T6 %AN	T6 %TE
Subj. 004	AGA	196	122	74	62,2%	37,8%	198	121	77	61,1%	38,9%	198	125	73	63,1%	36,9%	196	122	74	62,2%	37,8%
Subj. 006	AGA	191	118	73	61,8%	38,2%	193	115	78	59,6%	40,4%	195	121	74	62,1%	37,9%	194	126	68	64,9%	35,1%
Subj. 010	TE	236	144	92	61,0%	39,0%	228	163	65	71,5%	28,5%	240	155	85	64,6%	35,4%	241	138	103	57,3%	42,7%
Subj. 017	TE	245	165	80	67,3%	32,7%	246	158	88	64,2%	35,8%	242	150	92	62,0%	38,0%	238	148	90	62,2%	37,8%
Subj. 021	AGA	184	110	74	59,8%	40,2%	182	105	77	57,7%	42,3%	186	107	79	57,5%	42,5%	190	107	83	56,3%	43,7%
Subj. 029	AGA	210	122	88	58,1%	41,9%	212	126	86	59,4%	40,6%	212	115	97	54,2%	45,8%	207	112	95	54,1%	45,9%
Subj. 034	TE	223	142	81	63,7%	36,3%	221	140	81	63,3%	36,7%	223	132	91	59,2%	40,8%	225	132	93	58,7%	41,3%
Subj. 046	TE	248	173	75	69,8%	30,2%	253	165	88	65,2%	34,8%	250	158	92	63,2%	36,8%	256	160	96	62,5%	37,5%
Subj. 049	AGA	186	131	55	70,4%	29,6%	182	140	42	76,9%	23,1%	183	143	40	78,1%	21,9%	178	136	42	76,4%	23,6%
Subj. 050	TE	196	143	53	73,0%	27,0%	198	162	36	81,8%	18,2%	198	136	62	68,7%	31,3%	185	115	70	62,2%	37,8%
Subj. 051	AGA	201	120	81	59,7%	40,3%	203	121	82	59,6%	40,4%	200	122	78	61,0%	39,0%	202	125	77	61,9%	38,1%
Subj. 054	TE	238	151	87	63,4%	36,6%	235	168	67	71,5%	28,5%	236	170	66	72,0%	28,0%	234	160	74	68,4%	31,6%
Subj. 055	AGA	224	115	109	51,3%	48,7%	221	116	105	52,5%	47,5%	228	115	113	50,4%	49,6%	228	115	113	50,4%	49,6%
Subj. 057	AGA	208	132	76	63,5%	36,5%	208	132	76	63,5%	36,5%	206	126	80	61,2%	38,8%	210	124	86	59,0%	41,0%
Subj. 059	AGA	186	144	42	77,4%	22,6%	188	142	46	75,5%	24,5%	183	138	45	75,4%	24,6%	185	138	47	74,6%	25,4%
Subj. 061	TE	245	184	61	75,1%	24,9%	240	203	37	84,6%	15,4%	248	208	40	83,9%	16,1%	252	192	60	76,2%	23,8%
Subj. 062	TE	210	172	38	81,9%	18,1%	202	154	48	76,2%	23,8%	212	178	34	84,0%	16,0%	217	188	29	86,6%	13,4%
Subj. 073	TE	238	180	58	75,6%	24,4%	243	184	59	75,7%	24,3%	241	174	67	72,2%	27,8%	236	165	71	69,9%	30,1%
Subj. 077	AGA	190	128	62	67,4%	32,6%	193	133	60	68,9%	31,1%	188	128	60	68,1%	31,9%	190	121	69	63,7%	36,3%
Subj. 083	TE	244	165	79	67,6%	32,4%	256	158	98	61,7%	38,3%	245	153	92	62,4%	37,6%	246	156	90	63,4%	36,6%
Subj. 084	AGA	202	101	101	50,0%	50,0%	210	98	112	46,7%	53,3%	197	102	95	51,8%	48,2%	199	108	91	54,3%	45,7%
Subj. 087	TE	194	136	58	70,1%	29,9%	192	146	46	76,0%	24,0%	196	141	55	71,9%	28,1%	194	135	59	69,6%	30,4%
Subj. 092	TE	262	164	98	62,6%	37,4%	258	168	90	65,1%	34,9%	256	155	101	60,5%	39,5%	257	155	102	60,3%	39,7%
Subj. 097	TE	210	162	48	77,1%	22,9%	203	151	52	74,4%	25,6%	209	146	63	69,9%	30,1%	212	146	66	68,9%	31,1%
Subj. 104	TE	236	128	108	54,2%	45,8%	227	113	114	49,8%	50,2%	240	136	104	56,7%	43,3%	236	152	84	64,4%	35,6%
Subj. 106	AGA	184	121	63	65,8%	34,2%	180	115	65	63,9%	36,1%	178	116	62	65,2%	34,8%	175	130	45	74,3%	25,7%
Subj. 107	AGA	218	115	103	52,8%	47,2%	216	133	83	61,6%	38,4%	221	136	85	61,5%	38,5%	217	118	99	54,4%	45,6%
Subj. 109	AGA	236	138	98	58,5%	41,5%	238	136	102	57,1%	42,9%	242	147	95	60,7%	39,3%	243	156	87	64,2%	35,8%
Subj. 112	TE	241	163	78	67,6%	32,4%	240	178	62	74,2%	25,8%	235	173	62	73,6%	26,4%	238	162	76	68,1%	31,9%
Subj. 113	TE	238	146	92	61,3%	38,7%	234	152	82	65,0%	35,0%	236	152	84	64,4%	35,6%	233	144	89	61,8%	38,2%
Mean		217,3	141,2	76,2	65,0%	35,0%	216,7	143,2	73,5	66,1%	33,9%	217,5	141,9	75,5	65,3%	34,7%	217,1	139,5	77,6	64,4%	35,6%
SEM		4,3	4,1	3,5	1,5%	1,5%	4,3	4,6	4,0	1,7%	1,7%	4,4	4,3	3,7	1,5%	1,5%	4,5	4,0	3,6	1,4%	1,4%

DATA SUMMARY

T2:

	AGA	TE		Variation vs. T0 AGA	Variation vs. T0 TE
Toh	201,7	229,8	Toh	0,6	-1,8
ANh	123,8	160,2	ANh	1,1	2,8
TEh	77,9	69,6	TEh	-0,6	-4,6
% AN	61,7%	70,0%	% AN	0,4%	1,8%
% TE	38,3%	30,0%	% TE	-0,4%	-1,8%

T4:

	AGA	TE		Variation vs. T0 AGA	Variation vs. T0 TE
Toh	201,2	231,7	Toh	0,1	0,2
ANh	124,4	157,3	ANh	1,7	-0,1
TEh	76,9	74,4	TEh	-1,6	0,3
% AN	62,2%	68,1%	% AN	0,8%	-0,1%
% TE	37,8%	31,9%	% TE	-0,8%	0,1%

T6:

	AGA	TE		Variation vs. T0 AGA	Variation vs. T0 TE
Toh	201,0	231,3	Toh	-0,1	-0,3
ANh	124,1	153,0	ANh	1,5	-4,4
TEh	76,9	78,3	TEh	-1,6	4,1
% AN	62,2%	66,3%	% AN	0,9%	-1,9%
% TE	37,8%	33,7%	% TE	-0,9%	1,9%

GRAPHS: PHOTOTRICOGRAM

Graph 6. The graph shows the mean data obtained for the reported parameter in the group of subjects who used the **SHAMPOO (ACTIVE)**. Data are reported as mean ± SEM.
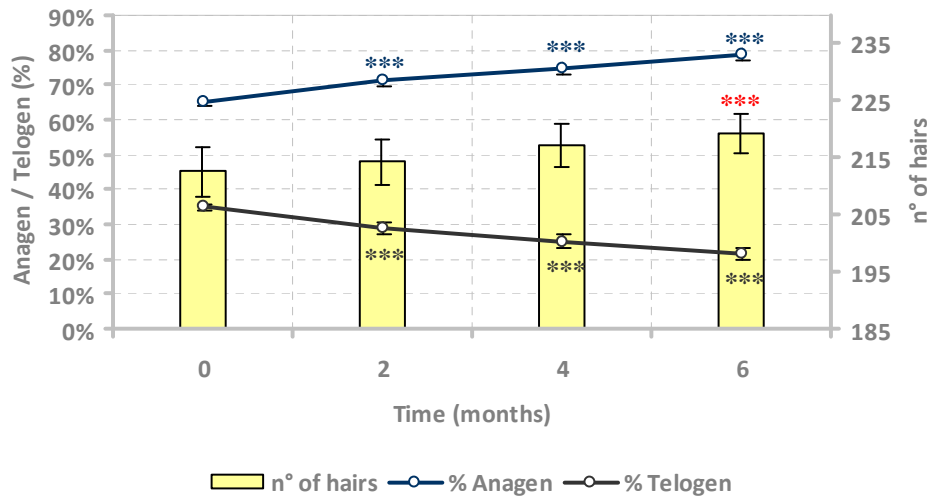
Statistical analysis
(RM-ANOVA).
no. of hairs
T2 vs. T0: p>0.05
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Anagen hairs
T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Telogen hairs
T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

Graph 7. The graph shows the mean data obtained for the reported parameter in the group of subjects who used the **SOLUTION (ACTIVE)**. Data are reported as mean ± SEM.

Statistical analysis
(RM-ANOVA).
no. of hairs
T2 vs. T0: p>0,05
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Anagen hairs
T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Telogen hairs
T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

GRAPHS: PHOTOTRICOGRAM

Graph 8. The graph shows the mean data obtained for the reported parameter in the group of subjects who used the **SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)**. Data are reported as mean ± SEM.
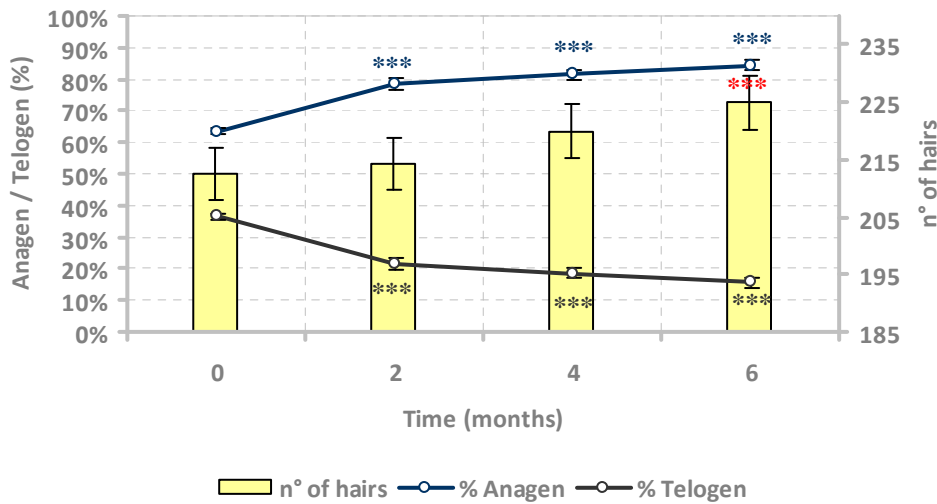
Statistical analysis
(RM-ANOVA).
no. of hairs
T2 vs. T0: p>0.05
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Anagen hairs
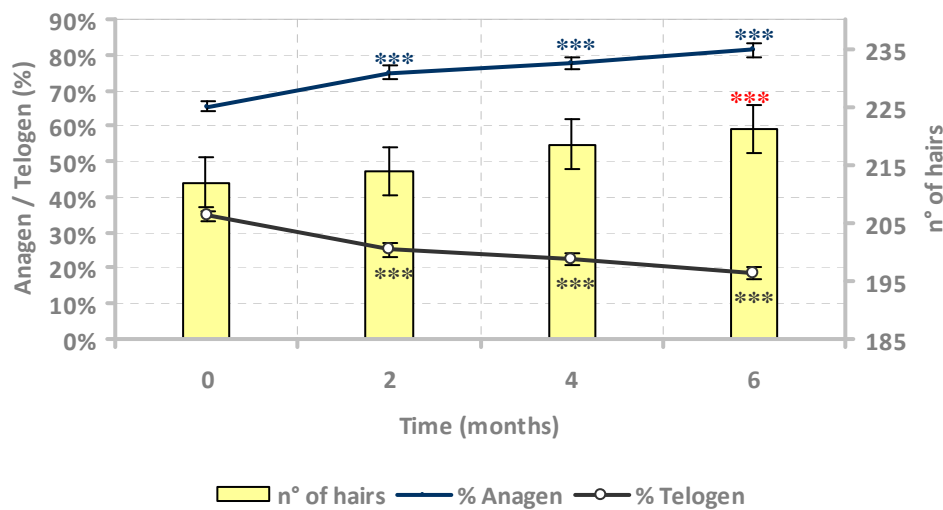T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001
% Telogen hairs
T2 vs. T0: p<0,001
T4 vs. T0: p<0,001
T6 vs. T0: p<0,001

Legend
n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

Graph 9. The graph shows the mean data obtained for the reported parameter in the group of subjects who used the **SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)**. Data are reported as mean ± SEM.
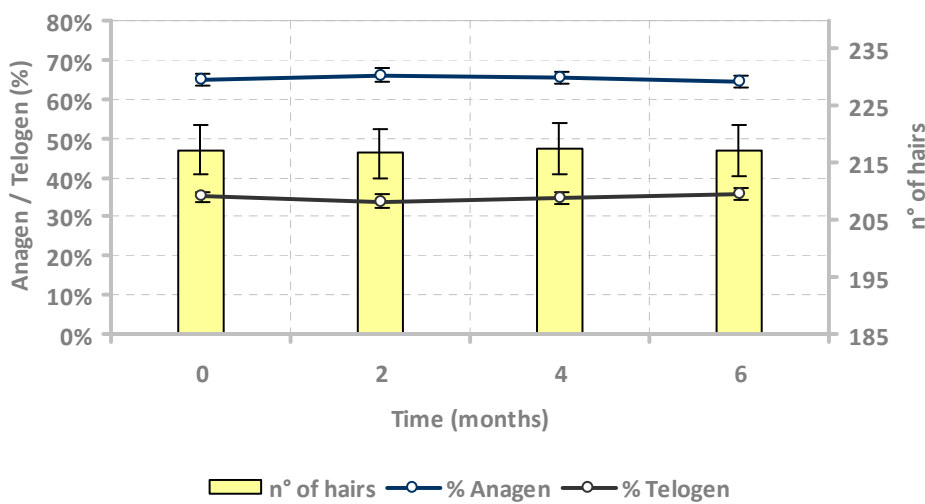
Statistical analysis
(RM-ANOVA).
no. of hairs
T2 vs. T0: p>0.05
T4 vs. T0: p>0.05
T6 vs. T0: p>0.05
% Anagen hairs
T2 vs. T0: p>0.05
T4 vs. T0: p>0.05
T6 vs. T0: p>0.05
% Telogen hairs
T2 vs. T0: p>0.05
T4 vs. T0: p>0.05
T6 vs. T0: p>0.05

Legend
n.s., not significant
*, p< 0,05
**, p< 0,01
***, p< 0,001

COMPARATIVE GRAPH: PHOTOTRICOGRAM | NO. OF HAIRS | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Graph 10. The graph here below reports the number of hairs increase obtained for each tested product(s). Data are reported as mean increase (vs. T0).
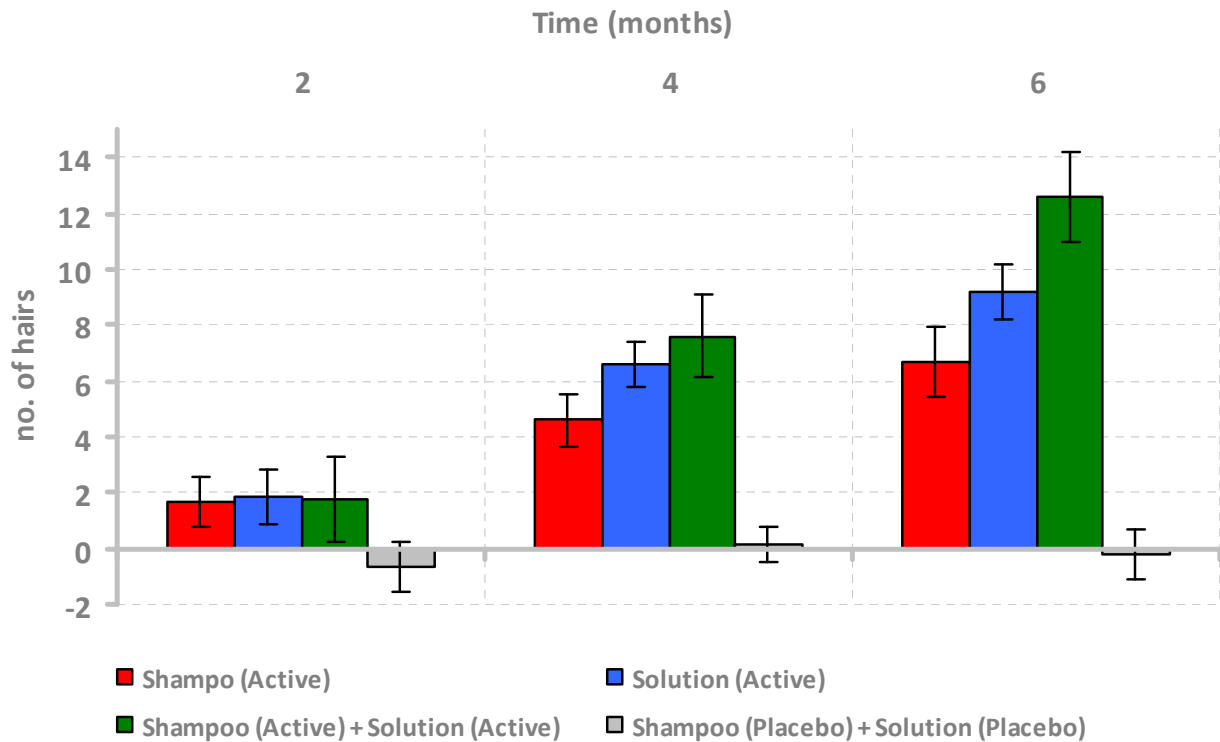
	2 months	4 months	6 months
Shampoo (Active)	1.7 ± 0.9	4.6 ± 0.9	6.7 ± 1.3
Solution (Active)	1.8 ± 1.0	6.6 ± 0.8	9.2 ± 1.0
Shampoo (Active)+Solution (Active)	1.8 ± 1.5	7.6 ± 1.5	12.6 ± 1.6
Shampoo (Placebo)+Solution (Placebo)	-0.7 ± 0.9	0.1 ± 0.6	-0.2 ± 0.9

INTERGROUP STATISTIC – SUMMARY TABLE								
2 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**4 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0,450639	0,477539	0,035947	S(A)	•••	0,043766	0,000095	0,000095
L(A)	•••	•••	0,485204	0,029966	L(A)	•••	0,267996	0,000000	0,000000
S(A)+L(A)	•••	•••	•••	0,083808	S(A)+P(A)	•••	•••	0,000007	0,000007
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
6 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)				
S(A)	•••	0,062873	0,003006	0,000021				
L(A)	•••	•••	0,040848	0,000000				
S(A)+L(A)	•••	•••	•••	0,000000				
S(P)+L(P)	•••	•••	•••	•••				

Legend: S(A), Shampoo (Active) | L(A), Solution (Active) | S(A)+L(A), Shampoo (Active) + Solution (Active) | S(P)+L(P), Shampoo (Placebo) + Solution (Placebo)

COMPARATIVE GRAPH: PHOTOTRICOGRAM | % ANAGEN HAIRS | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Graph 11. The graph here below reports the % anagen hairs increase obtained for each tested product(s). Data are reported as mean increase (vs. T0).

	2 months	4 months	6 months
Shampoo (Active)	5.9 ± 1.0%	9.7 ± 1.1%	13.4 ± 0.9%
Solution (Active)	9.5 ± 1.2%	12.1 ± 1.1%	15.9 ± 1.1%
Shampoo (Active)+Solution (Active)	15.1 ± 1.4%	18.0 ± 1.2%	20.9 ± 1.3%
Shampoo (Placebo)+Solution (Placebo)	1.1 ± 0.9%	0.3 ± 0.8%	-0.6 ± 0.9%

INTERGROUP STATISTIC – SUMMARY TABLE									
2 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**4 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0,011089	0,000001	0,000290	S(A)	•••	0,000002	0,000000	0,000000
L(A)	•••	•••	0,001907	0,000000	L(A)	•••	0,000368	0,000000	0,000000
S(A)+L(A)	•••	•••	•••	0,000000	S(A)+P(A)	•••	•••	0,000000	0,000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
6 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)					
S(A)	•••	0,044909	0,000010	0,000000					
L(A)	•••	•••	0,002596	0,000000					
S(A)+L(A)	•••	•••	•••	0,000000					
S(P)+L(P)	•••	•••	•••	•••					
Legend: S(A), Shampoo (Active)	L(A), Solution (Active)	S(A)+L(A), Shampoo (Active) + Solution (Active)	S(P)+L(P), Shampoo (Placebo) + Solution (Placebo)							

COMPARATIVE GRAPH: PHOTOTRICOGRAM | % TELOGEN HAIRS | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Graph 12. The graph here below reports the % telogen hairs decrease obtained for each tested product(s). Data are reported as mean increase (vs. T0).
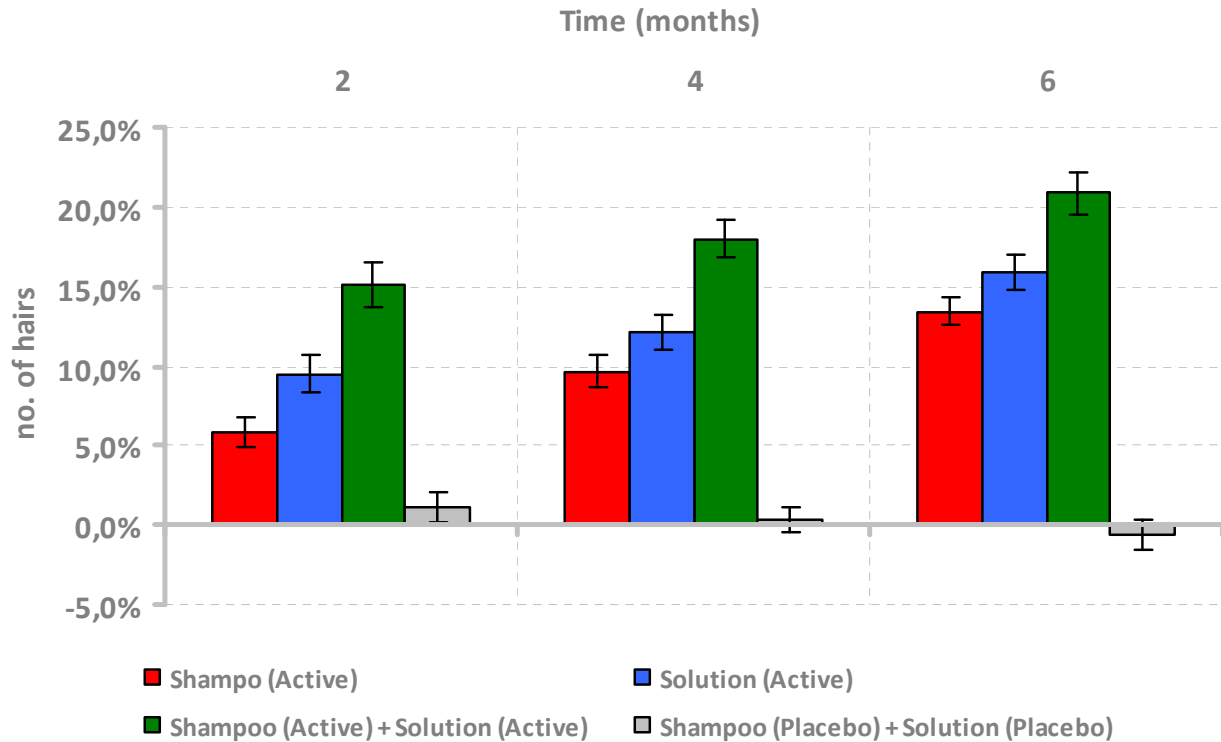

	2 months	4 months	6 months
Shampoo (Active)	-5.9 ± 1.0%	-9.7 ± 1.1%	-13.4 ± 0.9%
Solution (Active)	-9.5 ± 1.2%	-12.1 ± 1.1%	-15.9 ± 1.1%
Shampoo (Active)+Solution (Active)	-15.1 ± 1.4%	-18.0 ± 1.2%	-20.9 ± 1.3%
Shampoo (Placebo)+Solution (Placebo)	-1.1 ± 0.9%	-0.3 ± 0.8%	+0.6 ± 0.9%

INTERGROUP STATISTIC – SUMMARY TABLE									
2 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**4 Months**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0,011089	0,000001	0,000290	S(A)	•••	0,000002	0,000000	0,000000
L(A)	•••	•••	0,001907	0,000000	L(A)	•••	0,000368	0,000000	0,000000
S(A)+L(A)	•••	•••	•••	0,000000	S(A)+P(A)	•••	•••	0,000000	0,000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
6 Months	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)					
S(A)	•••	0,044909	0,000010	0,000000					
L(A)	•••	•••	0,002596	0,000000					
S(A)+L(A)	•••	•••	•••	0,000000					
S(P)+L(P)	•••	•••	•••	•••					
Legend: S(A), Shampoo (Active)	L(A), Solution (Active)	S(A)+L(A), Shampoo (Active) + Solution (Active)	S(P)+L(P), Shampoo (Placebo) + Solution (Placebo)									

RESULTS & GRAPHS: SELF ASSESSMENT

Graph 10. The graph shows the mean data obtained for the reported parameter.

Score

Legend (graph bars):
- 🟥 Shampoo (Active)
- 🟦 Solution (Active)
- 🟩 Shampoo (Active) + Solution (Active)
- ⬜ Shampoo (Placebo) + Solution (Placebo)

Q1. Have you noticed a decrease fo hair loss?	
Shampoo (Active)	8,5
Solution (Active)	8,6
Shampoo (Active) + Solution (Active)	9,2
Shampoo (Placebo) + Solution (Placebo)	5,4

Q2. Have you noticed the growth of new hairs?	
Shampoo (Active)	6,8
Solution (Active)	6,9
Shampoo (Active) + Solution (Active)	7,8
Shampoo (Placebo) + Solution (Placebo)	4,6

Q3. Have you noticed an increase of hair thickness?	
Shampoo (Active)	7,3
Solution (Active)	7,9
Shampoo (Active) + Solution (Active)	8,7
Shampoo (Placebo) + Solution (Placebo)	4,8

Q4. Does you hairs grow faster?	
Shampoo (Active)	7,7
Solution (Active)	8,1
Shampoo (Active) + Solution (Active)	8,7
Shampoo (Placebo) + Solution (Placebo)	4,3

Q5. Has the treatment reinforced your hairs?	
Shampoo (Active)	7,6
Solution (Active)	8,2
Shampoo (Active) + Solution (Active)	9,0
Shampoo (Placebo) + Solution (Placebo)	4,4

% of subjects who gave a positive (≥6) evaluation				
	Shampoo (Active)	Solution (Active)	Shampoo (Active) + Solution (Active)	Shampoo (Placebo) + Solution (Placebo)
Question 1	100%	100%	100%	50%
Question 2	83.3%	93.3%	86.7%	26.7%
Question 3	83.3%	96.7%	100%	30%
Question 4	96.7%	96.7%	100%	16.7%
Question 5	93.3%	100%	100%	23.3%

INTERGROUP STATISTIC - SUMMARY TABLE									
Question 1	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**Question 2**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0.994102	0.040595	0.000000	S(A)	•••	0.870811	0.019883	0.000000
L(A)	•••	•••	0.035783	0.000000	L(A)	•••	•••	0.027086	0.000002
S(A)+L(A)	•••	•••	•••	0.000000	S(A)+P(A)	•••	•••	•••	0.000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
Question 3	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)	**Question 4**	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)
S(A)	•••	0.111987	0.000512	0.000001	S(A)	•••	0.137323	0.001518	0.000000
L(A)	•••	•••	0.033258	0.000000	L(A)	•••	•••	0.033874	0.000000
S(A)+L(A)	•••	•••	•••	0.000000	S(A)+P(A)	•••	•••	•••	0.000000
S(P)+L(P)	•••	•••	•••	•••	S(P)+P(P)	•••	•••	•••	•••
Question 5	S(A)	L(A)	S(A)+L(A)	S(P)+L(P)					
S(A)	•••	0.077272	0.000056	0.000000					
L(A)	•••	•••	0.016617	0.000000					
S(A)+L(A)	•••	•••	•••	0.000000					
S(P)+L(P)	•••	•••	•••	•••					
Legend: S(A), Shampoo (Active)	L(A), Solution (Active)	S(A)+L(A), Shampoo (Active) + Solution (Active)	S(P)+L(P), Shampoo (Placebo) + Solution (Placebo)						

RESULTS: DERMATOLOGICAL EVALUATION - SHAMPOO (ACTIVE)

Table 9. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameters.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6
Subj. 001	AGA	Sl. redness & desquamation						
Subj. 005	TE	Sl. redness & desquamation	Sl. redness & desquamation	Sl. redness & desquamation	Sl. redness & desquamation			
Subj. 007	AGA	Sebum excess						
Subj. 008	AGA		Sl. redness	Sl. redness				
Subj. 018	TE	Sebum excess						
Subj. 020	TE							
Subj. 023	AGA							
Subj. 026	TE	Sl. desquamation						
Subj. 027	AGA							
Subj. 030	AGA							
Subj. 042	AGA	Sl. desquamation						
Subj. 044	TE	Sebum excess	Sebum excess					
Subj. 047	TE							
Subj. 053	TE	Sl. desquamation						
Subj. 056	AGA							
Subj. 063	AGA	Sebum excess						
Subj. 065	AGA	Sebum excess						
Subj. 068	TE	Sebum excess						
Subj. 071	TE							
Subj. 076	AGA	Sebum excess						
Subj. 085	TE	Sl. redness & desquamation						
Subj. 086	AGA							
Subj. 096	TE	Sl. desquamation						
Subj. 101	TE	Sl. redness & desquamation	Sl. redness & desquamation					
Subj. 105	AGA							
Subj. 108	TE							
Subj. 115	TE	Sl. desquamation	Sl. desquamation					
Subj. 116	TE							
Subj. 117	AGA	Sebum excess						
Subj. 119	TE							

RESULTS: DERMATOLOGICAL EVALUATION - SOLUTION (ACTIVE)

Table 10. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameters.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6
Subj. 003	TE	Sl. desquamation						
Subj. 009	AGA	Sebum excess						
Subj. 014	AGA	Sl. redness & desquamation						
Subj. 015	AGA							
Subj. 024	TE	Sl. desquamation						
Subj. 031	TE							
Subj. 035	AGA	Sebum excess						
Subj. 039	TE	Sl. redness & desquamation	Sl. redness & desquamation	Sl. redness & desquamation				
Subj. 041	TE	Sl. redness & desquamation						
Subj. 048	TE	Sebum excess						
Subj. 052	TE							
Subj. 058	TE	Sl. redness & desquamation						
Subj. 064	TE							
Subj. 066	AGA	Sebum excess	Sebum excess					
Subj. 070	AGA	Sebum excess						
Subj. 072	AGA		Sl. redness					
Subj. 075	TE							
Subj. 078	TE	Sl. desquamation						
Subj. 080	AGA	Sebum excess						
Subj. 081	TE							
Subj. 082	AGA							
Subj. 089	TE	Sebum excess						
Subj. 090	TE	Sl. redness & desquamation						
Subj. 091	AGA	Sl. desquamation						
Subj. 094	AGA	Sebum excess						
Subj. 095	AGA	Sebum excess						
Subj. 098	TE	Sl. desquamation						
Subj. 103	TE							
Subj. 110	AGA	Sebum excess						
Subj. 120	TE							

RESULTS: DERMATOLOGICAL EVALUATION - SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

Table 11. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameters.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6
Subj. 002	TE	Sl. desquamation						
Subj. 011	TE	Sl. redness & desquamation						
Subj. 012	AGA	Sebum excess						
Subj. 013	AGA	Sebum excess						
Subj. 016	AGA	Sl. redness & desquamation						
Subj. 019	TE	Sl. desquamation						
Subj. 022	TE	Sebum excess						
Subj. 025	TE							
Subj. 028	AGA	Sebum excess						
Subj. 032	AGA							
Subj. 033	TE	Sl. redness & desquamation						
Subj. 036	AGA							
Subj. 037	TE	Sl. desquamation						
Subj. 038	AGA	Sebum excess						
Subj. 040	AGA	Sebum excess						
Subj. 043	TE							
Subj. 045	TE	Sl. redness & desquamation						
Subj. 060	TE	Sl. redness & desquamation						
Subj. 067	TE	Sl. redness & desquamation						
Subj. 069	AGA							
Subj. 074	AGA	Sebum excess						
Subj. 079	TE	Sebum excess						
Subj. 088	TE							
Subj. 093	TE	Sebum excess						
Subj. 099	AGA							
Subj. 100	TE	Sl. desquamation						
Subj. 102	AGA	Sebum excess						
Subj. 111	TE							
Subj. 114	AGA							
Subj. 118	TE	Sebum excess						

RESULTS: DERMATOLOGICAL EVALUATION - SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

Table 12. The table here below reports the data obtained for each subject participating in the study for the above mentioned parameters.

Vol. no	Group	T0	T1	T2	T3	T4	T5	T6
Subj. 004	AGA	Sl. redness & desquamation						
Subj. 006	AGA	Sebum excess	Sebum excess	Sebum excess		Sebum excess		Sebum excess
Subj. 010	TE	Sebum excess						
Subj. 017	TE		Sl. redness	Sl. redness				
Subj. 021	AGA	Sl. redness & desquamation						
Subj. 029	AGA	Sl. redness & desquamation						
Subj. 034	TE	Sl. redness & desquamation						
Subj. 046	TE			Sl. redness	Sl. redness			
Subj. 049	AGA	Sebum excess	Sebum excess		Sebum excess	Sebum excess		
Subj. 050	TE							
Subj. 051	AGA	Sebum excess	Sebum excess	Sebum excess				
Subj. 054	TE	Sebum excess	Sebum excess	Sebum excess	Sebum excess	Sebum excess	Sebum excess	
Subj. 055	AGA		Sl. redness					
Subj. 057	AGA	Sebum excess						
Subj. 059	AGA							
Subj. 061	TE	Sl. redness & desquamation	Sl. redness					
Subj. 062	TE							
Subj. 073	TE	Sl. redness & desquamation						
Subj. 077	AGA							
Subj. 083	TE	Sebum excess	Sebum excess		Sebum excess			Sebum excess
Subj. 084	AGA							
Subj. 087	TE							
Subj. 092	TE	Sl. desquamation	Sl. desquamation			Sl. desquamation		Sl. desquamation
Subj. 097	TE							
Subj. 104	TE							
Subj. 106	AGA	Sebum excess		Sebum excess	Sebum excess		Sebum excess	
Subj. 107	AGA	Sebum excess	Sebum excess	Sebum excess	Sebum excess	Sebum excess		Sebum excess
Subj. 109	AGA	Sebum excess	Sebum excess		Sebum excess		Sebum excess	
Subj. 112	TE							
Subj. 113	TE							

CONCLUSIONS

The use of the products HERBAL Shampoo and HERBAL Solution helps to ameliorate the baseline conditions of subjects suffering from Androgenetic Alopecia (grade II and III) or Telogen Effluvium. In this 6-months study, in fact, the regular use of the products decreased the hair loss due to telogen effluvium and increased the number of hairs in the anagen phase (and as a consequence a decrease of the number of hairs in the telogen phase). These effects, clinically or instrumentally assessed, were also perceived by the subjects participating in the study and statistically bigger than that obtained by the subjects that used the placebo products.
Products were well tolerated and no side effects were registered during the study. Product use determined an improvement of baseline scalp conditions (decrease of sebum excess, redness or desquamation).

The concomitant use of HERBAL Shampoo and HERBAL Solution have a synergistic effect in improving the measured parameters. In fact, the results obtained in the group that used both the products were bigger than that obtained in the group of subject who used only one product (shampoo of Solution).

The results obtained in this study demonstrate that the tested products have an eutrophic effect for the hair bulbs. This effect helps in "**reducing hair loss**" and "**preventing hair fall**".

Pavia, June, 7th 2011

The study Director
Prof. Dr Fulvio Marzatico

B'IOTA LABORATORIES

Randomization List

Summary

Randomization Algorithm	Wei's Urn (A = 0, B = 1)	
Search Iterations	194	
Number of Groups	4	
Total Sample Size	120	
Group Sample Sizes	Actual	Target
-- Shampoo (Active)	30	30
-- Solution (Active)	30	30
-- Shampoo (Active)+Solution (Active)	30	30
-- Shampoo (Placebo)+Solution (Placebo)	30	30

References

Piantadosi, S. 2005. Clinical Trials - A Methodological Perspective. John Wiley & Sons. New Jersey.
Pocock, S.J. 1983. Clinical Trials - A Practical Approach. John Wiley & Sons. New York.
Rosenberger, W.F., and Lachin, J.M. 2002. Randomization in Clinical Trials - Theory and Practice. John Wiley & Sons. New York.

Randomization List

Subject ID	Group Assignment	Largest % Deviation from Target	Cumulative Sample Size (Shampoo (Active), Solution (Active), Shampoo (Active)+Solution (Active), Shampoo (Placebo)+Solution (Placebo))
1	Shampoo (Active)	2,5%	(1, 0, 0, 0)
2	Shampoo (Active)+Solution (Active)	1,7%	(1, 0, 1, 0)
3	Solution (Active)	2,5%	(1, 1, 1, 0)
4	Shampoo (Placebo)+Solution (Placebo)	0,0%	(1, 1, 1, 1)
5	Shampoo (Active)	2,5%	(2, 1, 1, 1)
6	Shampoo (Placebo)+Solution (Placebo)	1,7%	(2, 1, 1, 2)
7	Shampoo (Active)	4,2%	(3, 1, 1, 2)
8	Shampoo (Active)	6,7%	(4, 1, 1, 2)
9	Solution (Active)	5,8%	(4, 2, 1, 2)
10	Shampoo (Placebo)+Solution (Placebo)	5,0%	(4, 2, 1, 3)
11	Shampoo (Active)+Solution (Active)	4,2%	(4, 2, 2, 3)
12	Shampoo (Active)+Solution (Active)	3,3%	(4, 2, 3, 3)
13	Shampoo (Active)+Solution (Active)	4,2%	(4, 2, 4, 3)
14	Solution (Active)	1,7%	(4, 3, 4, 3)
15	Solution (Active)	2,5%	(4, 4, 4, 3)
16	Shampoo (Active)+Solution (Active)	3,3%	(4, 4, 5, 3)
17	Shampoo (Placebo)+Solution (Placebo)	2,5%	(4, 4, 5, 4)
18	Shampoo (Active)	1,7%	(5, 4, 5, 4)
19	Shampoo (Active)+Solution (Active)	4,2%	(5, 4, 6, 4)
20	Shampoo (Active)	3,3%	(6, 4, 6, 4)
21	Shampoo (Placebo)+Solution (Placebo)	4,2%	(6, 4, 6, 5)
22	Shampoo (Active)+Solution (Active)	5,0%	(6, 4, 7, 5)
23	Shampoo (Active)	5,8%	(7, 4, 7, 5)
24	Solution (Active)	3,3%	(7, 5, 7, 5)
25	Shampoo (Active)+Solution (Active)	5,8%	(7, 5, 8, 5)
26	Shampoo (Active)	5,0%	(8, 5, 8, 5)
27	Shampoo (Active)	7,5%	(9, 5, 8, 5)
28	Shampoo (Active)+Solution (Active)	6,7%	(9, 5, 9, 5)
29	Shampoo (Placebo)+Solution (Placebo)	7,5%	(9, 5, 9, 6)
30	Shampoo (Active)	8,3%	(10, 5, 9, 6)
31	Solution (Active)	7,5%	(10, 6, 9, 6)
32	Shampoo (Active)+Solution (Active)	6,7%	(10, 6, 10, 6)
33	Shampoo (Active)+Solution (Active)	9,2%	(10, 6, 11, 6)
34	Shampoo (Placebo)+Solution (Placebo)	8,3%	(10, 6, 11, 7)
35	Solution (Active)	7,5%	(10, 7, 11, 7)
36	Shampoo (Active)+Solution (Active)	10,0%	(10, 7, 12, 7)
37	Shampoo (Active)+Solution (Active)	12,5%	(10, 7, 13, 7)
38	Shampoo (Active)+Solution (Active)	15,0%	(10, 7, 14, 7)
39	Solution (Active)	14,2%	(10, 8, 14, 7)
40	Shampoo (Active)+Solution (Active)	16,7%	(10, 8, 15, 7)
41	Solution (Active)	15,8%	(10, 9, 15, 7)
42	Shampoo (Active)	15,0%	(11, 9, 15, 7)
43	Shampoo (Active)+Solution (Active)	17,5%	(11, 9, 16, 7)
44	Shampoo (Active)	16,7%	(12, 9, 16, 7)
45	Shampoo (Active)+Solution (Active)	19,2%	(12, 9, 17, 7)
46	Shampoo (Placebo)+Solution (Placebo)	18,3%	(12, 9, 17, 8)
47	Shampoo (Active)	17,5%	(13, 9, 17, 8)
48	Solution (Active)	16,7%	(13, 10, 17, 8)
49	Shampoo (Placebo)+Solution (Placebo)	15,8%	(13, 10, 17, 9)
50	Shampoo (Placebo)+Solution (Placebo)	15,0%	(13, 10, 17, 10)
51	Shampoo (Placebo)+Solution (Placebo)	14,2%	(13, 10, 17, 11)
52	Solution (Active)	13,3%	(13, 11, 17, 11)
53	Shampoo (Active)	12,5%	(14, 11, 17, 11)
54	Shampoo (Placebo)+Solution (Placebo)	11,7%	(14, 11, 17, 12)
55	Shampoo (Placebo)+Solution (Placebo)	10,8%	(14, 11, 17, 13)

Subject ID	Group Assignment	Largest % Deviation from Target	Cumulative Sample Size (Shampoo (Active), Solution (Active), Shampoo (Active)+Solution (Active), Shampoo (Placebo)+Solution (Placebo))
56	Shampoo (Active)	10,0%	(15, 11, 17, 13)
57	Shampoo (Placebo)+Solution (Placebo)	10,8%	(15, 11, 17, 14)
58	Solution (Active)	8,3%	(15, 12, 17, 14)
59	Shampoo (Placebo)+Solution (Placebo)	9,2%	(15, 12, 17, 15)
60	Shampoo (Active)+Solution (Active)	10,0%	(15, 12, 18, 15)
61	Shampoo (Placebo)+Solution (Placebo)	10,8%	(15, 12, 18, 16)
62	Shampoo (Placebo)+Solution (Placebo)	11,7%	(15, 12, 18, 17)
63	Shampoo (Active)	12,5%	(16, 12, 18, 17)
64	Solution (Active)	10,0%	(16, 13, 18, 17)
65	Shampoo (Active)	10,8%	(17, 13, 18, 17)
66	Solution (Active)	8,3%	(17, 14, 18, 17)
67	Shampoo (Active)+Solution (Active)	9,2%	(17, 14, 19, 17)
68	Shampoo (Active)	10,0%	(18, 14, 19, 17)
69	Shampoo (Active)+Solution (Active)	10,8%	(18, 14, 20, 17)
70	Solution (Active)	8,3%	(18, 15, 20, 17)
71	Shampoo (Active)	9,2%	(19, 15, 20, 17)
72	Solution (Active)	6,7%	(19, 16, 20, 17)
73	Shampoo (Placebo)+Solution (Placebo)	7,5%	(19, 16, 20, 18)
74	Shampoo (Active)+Solution (Active)	8,3%	(19, 16, 21, 18)
75	Solution (Active)	7,5%	(19, 17, 21, 18)
76	Shampoo (Active)	6,7%	(20, 17, 21, 18)
77	Shampoo (Placebo)+Solution (Placebo)	7,5%	(20, 17, 21, 19)
78	Solution (Active)	5,0%	(20, 18, 21, 19)
79	Shampoo (Active)+Solution (Active)	7,5%	(20, 18, 22, 19)
80	Solution (Active)	6,7%	(20, 19, 22, 19)
81	Solution (Active)	5,8%	(20, 20, 22, 19)
82	Solution (Active)	5,0%	(20, 21, 22, 19)
83	Shampoo (Placebo)+Solution (Placebo)	4,2%	(20, 21, 22, 20)
84	Shampoo (Placebo)+Solution (Placebo)	3,3%	(20, 21, 22, 21)
85	Shampoo (Active)	2,5%	(21, 21, 22, 21)
86	Shampoo (Active)	1,7%	(22, 21, 22, 21)
87	Shampoo (Placebo)+Solution (Placebo)	2,5%	(22, 21, 22, 22)
88	Shampoo (Active)+Solution (Active)	3,3%	(22, 21, 23, 22)
89	Solution (Active)	2,5%	(22, 22, 23, 22)
90	Solution (Active)	1,7%	(22, 23, 23, 22)
91	Solution (Active)	4,2%	(22, 24, 23, 22)
92	Shampoo (Placebo)+Solution (Placebo)	3,3%	(22, 24, 23, 23)
93	Shampoo (Active)+Solution (Active)	4,2%	(22, 24, 24, 23)
94	Solution (Active)	5,0%	(22, 25, 24, 23)
95	Solution (Active)	7,5%	(22, 26, 24, 23)
96	Shampoo (Active)	6,7%	(23, 26, 24, 23)
97	Shampoo (Placebo)+Solution (Placebo)	5,8%	(23, 26, 24, 24)
98	Solution (Active)	8,3%	(23, 27, 24, 24)
99	Shampoo (Active)+Solution (Active)	7,5%	(23, 27, 25, 24)
100	Shampoo (Active)+Solution (Active)	6,7%	(23, 27, 26, 24)
101	Shampoo (Active)	5,8%	(24, 27, 26, 24)
102	Shampoo (Active)+Solution (Active)	5,0%	(24, 27, 27, 24)
103	Solution (Active)	7,5%	(24, 28, 27, 24)
104	Shampoo (Placebo)+Solution (Placebo)	6,7%	(24, 28, 27, 25)
105	Shampoo (Active)	5,8%	(25, 28, 27, 25)
106	Shampoo (Placebo)+Solution (Placebo)	5,0%	(25, 28, 27, 26)
107	Shampoo (Placebo)+Solution (Placebo)	5,8%	(25, 28, 27, 27)
108	Shampoo (Active)	3,3%	(26, 28, 27, 27)
109	Shampoo (Placebo)+Solution (Placebo)	4,2%	(26, 28, 27, 28)
110	Solution (Active)	5,0%	(26, 29, 27, 28)
111	Shampoo (Active)+Solution (Active)	5,8%	(26, 29, 28, 28)
112	Shampoo (Placebo)+Solution (Placebo)	6,7%	(26, 29, 28, 29)
113	Shampoo (Placebo)+Solution (Placebo)	7,5%	(26, 29, 28, 30)
114	Shampoo (Active)+Solution (Active)	8,3%	(26, 29, 29, 30)
115	Shampoo (Active)	5,8%	(27, 29, 29, 30)
116	Shampoo (Active)	3,3%	(28, 29, 29, 30)
117	Shampoo (Active)	2,5%	(29, 29, 29, 30)
118	Shampoo (Active)+Solution (Active)	1,7%	(29, 29, 30, 30)
119	Shampoo (Active)	2,5%	(30, 29, 30, 30)
120	Solution (Active)	0,0%	(30, 30, 30, 30)

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | WILCOXON SIGNED-RANK TEST FOR DIFFERENCE IN MEDIANS | PULL TEST DATA | SHAMPOO (ACTIVE)

T1 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
344	189	41,46384	0	5	636

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,7382	0,000185	Yes	3,7261	0,000194
X1-X2<0			3,7382	0,999907	No	3,7503	0,999912
X1-X2>0			3,7382	0,000093	Yes	3,7261	0,000097

T2 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
351	186	41,52861	3	8	210

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,9732	0,000071	Yes	3,9611	0,000075
X1-X2<0			3,9732	0,999965	No	3,9852	0,999966
X1-X2>0			3,9732	0,000035	Yes	3,9611	0,000037

T3 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
374	188,5	41,52409	1	6	384

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,4673	0,000008	Yes	4,4552	0,000008
X1-X2<0			4,4673	0,999996	No	4,4793	0,999996
X1-X2>0			4,4673	0,000004	Yes	4,4552	0,000004

T4 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
375	187,5	41,54215	2	7	264

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5135	0,000006	Yes	4,5015	0,000007
X1-X2<0			4,5135	0,999997	No	4,5255	0,999997
X1-X2>0			4,5135	0,000003	Yes	4,5015	0,000003

T5 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
377	188,5	41,53162	1	7	354

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5387	0,000006	Yes	4,5267	0,000006
X1-X2<0			4,5387	0,999997	No	4,5508	0,999997
X1-X2>0			4,5387	0,000003	Yes	4,5267	0,000003

T6 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,47589	0	5	588

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5569	0,000005	Yes	4,5448	0,000005
X1-X2<0			4,5569	0,999997	No	4,5689	0,999998
X1-X2>0			4,5569	0,000003	Yes	4,5448	0,000003

LEGEND
X1 = T0
X2 = T1, T2, T3, T4, T5 or T6

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | WILCOXON SIGNED-RANK TEST FOR DIFFERENCE IN MEDIANS | PULL TEST DATA | SOLUTION (ACTIVE)

T1 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
320	184	41,47589	4	7	228

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,2790	0,001042	Yes	3,2670	0,001087
X1-X2<0			3,2790	0,999479	No	3,2911	0,999501
X1-X2>0			3,2790	0,000521	Yes	3,2670	0,000544

T2 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
366	188,5	41,47589	1	7	576

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,2796	0,000019	Yes	4,2675	0,000020
X1-X2<0			4,2796	0,999991	No	4,2916	0,999991
X1-X2>0			4,2796	0,000009	Yes	4,2675	0,000010

T3 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,57072	0	8	210

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5465	0,000005	Yes	4,5344	0,000006
X1-X2<0			4,5465	0,999997	No	4,5585	0,999997
X1-X2>0			4,5465	0,000003	Yes	4,5344	0,000003

T4 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,46987	0	7	612

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5575	0,000005	Yes	4,5455	0,000005
X1-X2<0			4,5575	0,999997	No	4,5696	0,999998
X1-X2>0			4,5575	0,000003	Yes	4,5455	0,000003

T5 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,57072	0	8	210

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5465	0,000005	Yes	4,5344	0,000006
X1-X2<0			4,5465	0,999997	No	4,5585	0,999997
X1-X2>0			4,5465	0,000003	Yes	4,5344	0,000003

T6 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,57223	0	9	204

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,5463	0,000005	Yes	4,5343	0,000006
X1-X2<0			4,5463	0,999997	No	4,5583	0,999997
X1-X2>0			4,5463	0,000003	Yes	4,5343	0,000003

LEGEND
X1 = T0
X2 = T1, T2, T3, T4, T5 or T6

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | WILCOXON SIGNED-RANK TEST FOR DIFFERENCE IN MEDIANS | PULL TEST DATA | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

T1 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
374	188,5	41,54365	1	8	306

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,4652	0,000008	Yes	4,4531	0,000008
X1-X2<0			4,4652	0,999996	No	4,4772	0,999996
X1-X2>0			4,4652	0,000004	Yes	4,4531	0,000004

T2 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
374,5	188,5	41,56621	1	9	216

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,4748	0,000008	Yes	4,4628	0,000008
X1-X2<0			4,4748	0,999996	No	4,4868	0,999996
X1-X2>0			4,4748	0,000004	Yes	4,4628	0,000004

T3 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,56922	0	9	216

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,5466	0,000005	Yes	4,5346	0,000006
X1-X2<0			4,5466	0,999997	No	4,5587	0,999997
X1-X2>0			4,5466	0,000003	Yes	4,5346	0,000003

T4 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,52559	0	7	390

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,5514	0,000005	Yes	4,5394	0,000006
X1-X2<0			4,5514	0,999997	No	4,5635	0,999997
X1-X2>0			4,5514	0,000003	Yes	4,5394	0,000003

T5 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,55268	0	7	282

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,5484	0,000005	Yes	4,5364	0,000006
X1-X2<0			4,5484	0,999997	No	4,5605	0,999997
X1-X2>0			4,5484	0,000003	Yes	4,5364	0,000003

T6 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
378	189	41,56471	0	8	234

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	 Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	 Prob Level
X1-X2<>0			4,5471	0,000005	Yes	4,5351	0,000006
X1-X2<0			4,5471	0,999997	No	4,5592	0,999997
X1-X2>0			4,5471	0,000003	Yes	4,5351	0,000003

LEGEND
X1 = T0
X2 = T1, T2, T3, T4, T5 or T6

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | WILCOXON SIGNED-RANK TEST FOR DIFFERENCE IN MEDIANS | PULL TEST DATA | SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T1 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
310,5	187,5	40,92371	2	3	2712

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,0056	0,002651	Yes	2,9934	0,002759
X1-X2<0			3,0056	0,998675	No	3,0178	0,998727
X1-X2>0			3,0056	0,001325	Yes	2,9934	0,001380

T2 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
319,5	181,5	41,29013	5	6	666

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,3422	0,000831	Yes	3,3301	0,000868
X1-X2<0			3,3422	0,999584	No	3,3543	0,999602
X1-X2>0			3,3422	0,000416	Yes	3,3301	0,000434

T3 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
331	184	41,39143	4	5	564

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,5515	0,000383	Yes	3,5394	0,000401
X1-X2<0			3,5515	0,999808	No	3,5635	0,999817
X1-X2>0			3,5515	0,000192	Yes	3,5394	0,000201

T4 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
315	187,5	41,44273	2	6	660

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,0765	0,002094	Yes	3,0645	0,002181
X1-X2<0			3,0765	0,998953	No	3,0886	0,998994
X1-X2>0			3,0765	0,001047	Yes	3,0645	0,001090

T5 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
342	186	41,4774	3	6	414

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			3,7611	0,000169	Yes	3,7490	0,000178
X1-X2<0			3,7611	0,999915	No	3,7731	0,999919
X1-X2>0			3,7611	0,000085	Yes	3,7490	0,000089

T6 vs. T0

W Sum Ranks	Mean of W	Std Dev of W	Number of Zeros	Number Sets of Ties	Multiplicity Factor
352,5	186	41,44876	3	5	528

Alternative Hypothesis	Exact Probability Prob Level	Reject H0 at ,050	Approximation Without Continuity Correction Z-Value	Prob Level	Reject H0 at ,050	Approximation With Continuity Correction Z-Value	Prob Level
X1-X2<>0			4,0170	0,000059	Yes	4,0049	0,000062
X1-X2<0			4,0170	0,999971	No	4,0291	0,999972
X1-X2>0			4,0170	0,000029	Yes	4,0049	0,000031

LEGEND
X1 = T0
X2 = T1, T2, T3, T4, T5 or T6

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,676394	0,030580	Reject H0
Corrected for Ties	1	4,688009	0,030374	Reject H0

Number Sets of Ties	12
Multiplicity Factor	390

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	867,50	32,13	2,1625	-0,1666667
Shampoo (Active)	27	617,50	22,87	-2,1625	-0,2727273

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,09697	0,042960	Reject H0
Corrected for Ties	1	4,120845	0,042358	Reject H0

Number Sets of Ties	13
Multiplicity Factor	912

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	859,50	31,83	2,0241	-0,1666667
Shampoo (Active)	27	625,50	23,17	-2,0241	-0,3333333

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	23,04714	0,000002	Reject H0
Corrected for Ties	1	23,07881	0,000002	Reject H0

Number Sets of Ties	14
Multiplicity Factor	216

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	1020,00	37,78	4,8007	-0,25
Shampoo (Active)	27	465,00	17,22	-4,8007	-0,6153846

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	25,60606	0,000000	Reject H0
Corrected for Ties	1	25,66672	0,000000	Reject H0

Number Sets of Ties	13
Multiplicity Factor	372

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	1035,00	38,33	5,0602	-0,25
Shampoo (Active)	27	450,00	16,67	-5,0602	-0,7272727

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	28,20771	0,000000	Reject H0
Corrected for Ties	1	28,26049	0,000000	Reject H0

Number Sets of Ties	13
Multiplicity Factor	294

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	1049,50	38,87	5,3111	-0,2
Shampoo (Active)	27	435,50	16,13	-5,3111	-0,7777778

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	35,3138	0,000000	Reject H0
Corrected for Ties	1	35,43808	0,000000	Reject H0

Number Sets of Ties	13
Multiplicity Factor	552

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	27	1086,00	40,22	5,9425	-0,3571429
Shampoo (Active)	27	399,00	14,78	-5,9425	-0,8461539

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,309764	0,037894	Reject H0
Corrected for Ties	1	4,321625	0,037631	Reject H0

Number Sets of Ties	11
Multiplicity Factor	432

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	622,50	23,06	-2,0760	-0,4285714
Sh. (Placebo)+Lot. (Placebo)	27	862,50	31,94	2,0760	-0,1666667

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	12,51635	0,000403	Reject H0
Corrected for Ties	1	12,55991	0,000394	Reject H0

Number Sets of Ties	11
Multiplicity Factor	546

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	538,00	19,93	-3,5378	-0,5555556
Sh. (Placebo)+Lot. (Placebo)	27	947,00	35,07	3,5378	-0,1666667

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	24,05455	0,000001	Reject H0
Corrected for Ties	1	24,11613	0,000001	Reject H0

Number Sets of Ties	12
Multiplicity Factor	402

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	459,00	17,00	-4,9045	-0,6666667
Sh. (Placebo)+Lot. (Placebo)	27	1026,00	38,00	4,9045	-0,25

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	37,93071	0,000000	Reject H0
Corrected for Ties	1	38,04382	0,000000	Reject H0

Number Sets of Ties	14
Multiplicity Factor	468

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	386,50	14,31	-6,1588	-0,8
Sh. (Placebo)+Lot. (Placebo)	27	1098,50	40,69	6,1588	-0,2666667

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STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	34,39461	0,000000	Reject H0
Corrected for Ties	1	34,55001	0,000000	Reject H0

Number Sets of Ties	11
Multiplicity Factor	708

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	403,50	14,94	-5,8647	-0,8181818
Sh. (Placebo)+Lot. (Placebo)	27	1081,50	40,06	5,8647	-0,2

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	32,79042	0,000000	Reject H0
Corrected for Ties	1	32,99289	0,000000	Reject H0

Number Sets of Ties	12
Multiplicity Factor	966

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	411,50	15,24	-5,7263	-0,8571429
Sh. (Placebo)+Lot. (Placebo)	27	1073,50	39,76	5,7263	-0,3571429

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STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	23,46427	0,000001	Reject H0
Corrected for Ties	1	23,54414	0,000001	Reject H0

Number Sets of Ties	14
Multiplicity Factor	534

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	462,50	17,13	-4,8440	-0,4666667
Sh. (Placebo)+Lot. (Placebo)	27	1022,50	37,87	4,8440	-0,1666667

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	24,48066	0,000001	Reject H0
Corrected for Ties	1	24,55648	0,000001	Reject H0

Number Sets of Ties	10
Multiplicity Factor	486

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	456,50	16,91	-4,9478	-0,6153846
Sh. (Placebo)+Lot. (Placebo)	27	1028,50	38,09	4,9478	-0,1666667

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	31,22454	0,000000	Reject H0
Corrected for Ties	1	31,25671	0,000000	Reject H0

Number Sets of Ties	15
Multiplicity Factor	162

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	419,50	15,54	-5,5879	-0,7692308
Sh. (Placebo)+Lot. (Placebo)	27	1065,50	39,46	5,5879	-0,25

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	38,14411	0,000000	Reject H0
Corrected for Ties	1	38,23593	0,000000	Reject H0

Number Sets of Ties	14
Multiplicity Factor	378

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	385,50	14,28	-6,1761	-0,875
Sh. (Placebo)+Lot. (Placebo)	27	1099,50	40,72	6,1761	-0,2666667

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	39,76364	0,000000	Reject H0
Corrected for Ties	1	39,98463	0,000000	Reject H0

Number Sets of Ties	11
Multiplicity Factor	870

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	378,00	14,00	-6,3058	-0,9333333
Sh. (Placebo)+Lot. (Placebo)	27	1107,00	41,00	6,3058	-0,2

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	39,65462	0,000000	Reject H0
Corrected for Ties	1	39,94237	0,000000	Reject H0

Number Sets of Ties	13
Multiplicity Factor	1134

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	378,50	14,02	-6,2972	-0,9333333
Sh. (Placebo)+Lot. (Placebo)	27	1106,50	40,98	6,2972	-0,3571429

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	1,466517	0,225896	Accept H0
Corrected for Ties	1	1,468812	0,225533	Accept H0

Number Sets of Ties	11
Multiplicity Factor	246

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	672,50	24,91	-1,2110	-0,4285714
Shampoo (Active)	27	812,50	30,09	1,2110	-0,2727273

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,527946	0,033346	Reject H0
Corrected for Ties	1	4,541101	0,033090	Reject H0

Number Sets of Ties	11
Multiplicity Factor	456

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	619,50	22,94	-2,1279	-0,5555556
Shampoo (Active)	27	865,50	32,06	2,1279	-0,3333333

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	0,3562289	0,550608	Accept H0
Corrected for Ties	1	0,3570183	0,550167	Accept H0

Number Sets of Ties	18
Multiplicity Factor	348

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	708,00	26,22	-0,5968	-0,6666667
Shampoo (Active)	27	777,00	28,78	0,5968	-0,6153846

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	9,113431	0,002537	Reject H0
Corrected for Ties	1	9,153905	0,002482	Reject H0

Number Sets of Ties	15
Multiplicity Factor	696

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	568,00	21,04	-3,0188	-0,8
Shampoo (Active)	27	917,00	33,96	3,0188	-0,7272727

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STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	1,706023	0,191502	Accept H0
Corrected for Ties	1	1,714125	0,190451	Accept H0

Number Sets of Ties	14
Multiplicity Factor	744

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	667,00	24,70	-1,3061	-0,8181818
Shampoo (Active)	27	818,00	30,30	1,3061	-0,7777778

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	2,162364E-02	0,883093	Accept H0
Corrected for Ties	1	2,226001E-02	0,881397	Accept H0

Number Sets of Ties	12
Multiplicity Factor	4500

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	734,00	27,19	-0,1470	-0,8571429
Shampoo (Active)	27	751,00	27,81	0,1470	-0,8461539

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	11,85215	0,000576	Reject H0
Corrected for Ties	1	11,87887	0,000568	Reject H0

Number Sets of Ties	13
Multiplicity Factor	354

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	543,50	20,13	-3,4427	-0,4666667
Shampoo (Active)	27	941,50	34,87	3,4427	-0,2727273

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	16,73992	0,000043	Reject H0
Corrected for Ties	1	16,78791	0,000042	Reject H0

Number Sets of Ties	13
Multiplicity Factor	450

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	506,00	18,74	-4,0914	-0,6153846
Shampoo (Active)	27	979,00	36,26	4,0914	-0,3333333

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	9,968201	0,001593	Reject H0
Corrected for Ties	1	9,979232	0,001583	Reject H0

Number Sets of Ties	20
Multiplicity Factor	174

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	560,00	20,74	-3,1572	-0,7692308
Shampoo (Active)	27	925,00	34,26	3,1572	-0,6153846

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	13,83464	0,000200	Reject H0
Corrected for Ties	1	13,88492	0,000194	Reject H0

Number Sets of Ties	15
Multiplicity Factor	570

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	527,50	19,54	-3,7195	-0,875
Shampoo (Active)	27	957,50	35,46	3,7195	-0,7272727

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	22,79865	0,000002	Reject H0
Corrected for Ties	1	22,94911	0,000002	Reject H0

Number Sets of Ties	13
Multiplicity Factor	1032

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	466,50	17,28	-4,7748	-0,9333333
Shampoo (Active)	27	1018,50	37,72	4,7748	-0,7777778

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	5,866068	0,015435	Reject H0
Corrected for Ties	1	6,068466	0,013762	Reject H0

Number Sets of Ties	10
Multiplicity Factor	5250

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	27	602,50	22,31	-2,4220	-0,9333333
Shampoo (Active)	27	882,50	32,69	2,4220	-0,8461539

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

T1 vs. T1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	0,1080434	0,742383	Accept H0
Corrected for Ties	1	0,1084568	0,741908	Accept H0

Number Sets of Ties	13
Multiplicity Factor	600

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	761,50	28,20	0,3287	-0,4285714
Sh. (Active)+Lot. (Active)	27	723,50	26,80	-0,3287	-0,4666667

T2 vs. T2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	3,9581	0,046646	Reject H0
Corrected for Ties	1	3,972788	0,046241	Reject H0

Number Sets of Ties	15
Multiplicity Factor	582

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	857,50	31,76	1,9895	-0,5555556
Sh. (Active)+Lot. (Active)	27	627,50	23,24	-1,9895	-0,6153846

T3 vs. T3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,309764	0,037894	Reject H0
Corrected for Ties	1	4,324435	0,037569	Reject H0

Number Sets of Ties	16
Multiplicity Factor	534

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	862,50	31,94	2,0760	-0,6666667
Sh. (Active)+Lot. (Active)	27	622,50	23,06	-2,0760	-0,7692308

T4 vs. T4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	3,237112	0,071987	Accept H0
Corrected for Ties	1	3,269262	0,070589	Accept H0

Number Sets of Ties	12
Multiplicity Factor	1548

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	846,50	31,35	1,7992	-0,8
Sh. (Active)+Lot. (Active)	27	638,50	23,65	-1,7992	-0,875

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | PULL TEST DATA | SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

T5 vs. T5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	6,379648	0,011544	Reject H0
Corrected for Ties	1	6,560702	0,010426	Reject H0

Number Sets of Ties	12
Multiplicity Factor	4344

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	888,50	32,91	2,5258	-0,8181818
Sh. (Active)+Lot. (Active)	27	596,50	22,09	-2,5258	-0,9333333

T6 vs. T6

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	3,687542	0,054820	Accept H0
Corrected for Ties	1	3,863216	0,049356	Reject H0

Number Sets of Ties	11
Multiplicity Factor	7158

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	27	853,50	31,61	1,9203	-0,8571429
Sh. (Active)+Lot. (Active)	27	631,50	23,39	-1,9203	-0,9333333

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	32,65186	0,000000	Reject H0
Corrected for Ties	1	33,29481	0,000000	Reject H0

Number Sets of Ties	8
Multiplicity Factor	4170

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	30	1301,50	43,38	5,7142	9
Shampoo (Active)	30	528,50	17,62	-5,7142	5,5

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	20,20022	0,000007	Reject H0
Corrected for Ties	1	20,74492	0,000005	Reject H0

Number Sets of Ties	8
Multiplicity Factor	5670

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	30	611,00	20,37	-4,4945	5
Shampoo (Active)	30	1219,00	40,63	4,4945	7

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	23,7312	0,000001	Reject H0
Corrected for Ties	1	24,38922	0,000001	Reject H0

Number Sets of Ties	8
Multiplicity Factor	5826

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	30	585,50	19,52	-4,8715	5
Shampoo (Active)	30	1244,50	41,48	4,8715	7,5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	35,14776	0,000000	Reject H0
Corrected for Ties	1	35,85815	0,000000	Reject H0

Number Sets of Ties	8
Multiplicity Factor	4278

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	30	514,00	17,13	-5,9286	4,5
Shampoo (Active)	30	1316,00	43,87	5,9286	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	28,6435	0,000000	Reject H0
Corrected for Ties	1	29,2473	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	4458

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Placebo)+Lot. (Placebo)	30	553,00	18,43	-5,3520	4
Shampoo (Active)	30	1277,00	42,57	5,3520	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	34,19022	0,000000	Reject H0
Corrected for Ties	1	34,90302	0,000000	Reject H0

Number Sets of Ties	8
Multiplicity Factor	4410

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1310,50	43,68	5,8472	8,5
Sh. (Placebo)+Lot. (Placebo)	30	519,50	17,32	-5,8472	5,5

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	22,59284	0,000002	Reject H0
Corrected for Ties	1	23,29646	0,000001	Reject H0

Number Sets of Ties	8
Multiplicity Factor	6522

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1236,50	41,22	4,7532	7
Sh. (Placebo)+Lot. (Placebo)	30	593,50	19,78	-4,7532	5

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	30,24787	0,000000	Reject H0
Corrected for Ties	1	30,85135	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	4224

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1287,00	42,90	5,4998	8
Sh. (Placebo)+Lot. (Placebo)	30	543,00	18,10	-5,4998	5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	36,20743	0,000000	Reject H0
Corrected for Ties	1	37,06216	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	4980

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1322,00	44,07	6,0173	8
Sh. (Placebo)+Lot. (Placebo)	30	508,00	16,93	-6,0173	4,5

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	32,99065	0,000000	Reject H0
Corrected for Ties	1	33,49603	0,000000	Reject H0

Number Sets of Ties	10
Multiplicity Factor	3258

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1303,50	43,45	5,7437	8
Sh. (Placebo)+Lot. (Placebo)	30	526,50	17,55	-5,7437	4

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	38,09973	0,000000	Reject H0
Corrected for Ties	1	39,22335	0,000000	Reject H0

Number Sets of Ties	8
Multiplicity Factor	6186

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1332,50	44,42	6,1725	10
Sh. (Placebo)+Lot. (Placebo)	30	497,50	16,58	-6,1725	5,5

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	28,01399	0,000000	Reject H0
Corrected for Ties	1	28,51633	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	3804

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1273,00	42,43	5,2928	8
Sh. (Placebo)+Lot. (Placebo)	30	557,00	18,57	-5,2928	5

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	37,28284	0,000000	Reject H0
Corrected for Ties	1	38,14017	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	4854

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1328,00	44,27	6,1060	8,5
Sh. (Placebo)+Lot. (Placebo)	30	502,00	16,73	-6,1060	5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	40,50935	0,000000	Reject H0
Corrected for Ties	1	41,27077	0,000000	Reject H0

Number Sets of Ties	9
Multiplicity Factor	3984

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1345,50	44,85	6,3647	9
Sh. (Placebo)+Lot. (Placebo)	30	484,50	16,15	-6,3647	4,5

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	36,83284	0,000000	Reject H0
Corrected for Ties	1	37,58048	0,000000	Reject H0

Number Sets of Ties	10
Multiplicity Factor	4296

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1325,50	44,18	6,0690	9
Sh. (Placebo)+Lot. (Placebo)	30	504,50	16,82	-6,0690	4

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	5,464481E-05	0,994102	Accept H0
Corrected for Ties	1	5,814068E-05	0,993916	Accept H0

Number Sets of Ties	5
Multiplicity Factor	12984

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	914,50	30,48	-0,0074	8,5
Shampoo (Active)	30	915,50	30,52	0,0074	9

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	2,644809E-02	0,870811	Accept H0
Corrected for Ties	1	0,0283902	0,866195	Accept H0

Number Sets of Ties	7
Multiplicity Factor	14772

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	926,00	30,87	0,1626	7
Shampoo (Active)	30	904,00	30,13	-0,1626	7

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	2,525956	0,111987	Accept H0
Corrected for Ties	1	2,705147	0,100025	Accept H0

Number Sets of Ties	6
Multiplicity Factor	14304

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1022,50	34,08	1,5893	8
Shampoo (Active)	30	807,50	26,92	-1,5893	7,5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	2,207705	0,137323	Accept H0
Corrected for Ties	1	2,372083	0,123522	Accept H0

Number Sets of Ties	5
Multiplicity Factor	14964

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1015,50	33,85	1,4858	8
Shampoo (Active)	30	814,50	27,15	-1,4858	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	3,121366	0,077272	Accept H0
Corrected for Ties	1	3,341005	0,067573	Accept H0

Number Sets of Ties 6
Multiplicity Factor 14196

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	1034,50	34,48	1,7667	8
Shampoo (Active)	30	795,50	26,52	-1,7667	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,192842	0,040595	Reject H0
Corrected for Ties	1	4,602726	0,031921	Reject H0

Number Sets of Ties	5
Multiplicity Factor	19230

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1053,50	35,12	2,0476	10
Shampoo (Active)	30	776,50	25,88	-2,0476	9

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	5,422131	0,019883	Reject H0
Corrected for Ties	1	5,614642	0,017811	Reject H0

Number Sets of Ties	7
Multiplicity Factor	7404

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1072,50	35,75	2,3285	8
Shampoo (Active)	30	757,50	25,25	-2,3285	7

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	12,07104	0,000512	Reject H0
Corrected for Ties	1	12,85886	0,000336	Reject H0

Number Sets of Ties	6
Multiplicity Factor	13230

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1150,00	38,33	3,4743	8,5
Shampoo (Active)	30	680,00	22,67	-3,4743	7,5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	10,05689	0,001518	Reject H0
Corrected for Ties	1	10,55917	0,001156	Reject H0

Number Sets of Ties	5
Multiplicity Factor	10272

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1129,50	37,65	3,1713	9
Shampoo (Active)	30	700,50	23,35	-3,1713	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SHAMPOO (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	16,23088	0,000056	Reject H0
Corrected for Ties	1	17,16168	0,000034	Reject H0

Number Sets of Ties	6
Multiplicity Factor	11712

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Sh. (Active)+Lot. (Active)	30	1187,50	39,58	4,0288	9
Shampoo (Active)	30	642,50	21,42	-4,0288	8

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

QUESTION #1

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,407432	0,035783	Reject H0
Corrected for Ties	1	4,844352	0,027737	Reject H0

Number Sets of Ties	5
Multiplicity Factor	19476

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	773,00	25,77	-2,0994	8,5
Sh. (Active)+Lot. (Active)	30	1057,00	35,23	2,0994	10

QUESTION #2

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,885301	0,027086	Reject H0
Corrected for Ties	1	5,075985	0,024259	Reject H0

Number Sets of Ties	7
Multiplicity Factor	8112

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	765,50	25,52	-2,2103	7
Sh. (Active)+Lot. (Active)	30	1064,50	35,48	2,2103	8

QUESTION #3

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,532459	0,033258	Reject H0
Corrected for Ties	1	4,890664	0,027002	Reject H0

Number Sets of Ties	5
Multiplicity Factor	15816

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	771,00	25,70	-2,1290	8
Sh. (Active)+Lot. (Active)	30	1059,00	35,30	2,1290	8,5

QUESTION #4

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	4,501038	0,033874	Reject H0
Corrected for Ties	1	4,796221	0,028522	Reject H0

Number Sets of Ties	5
Multiplicity Factor	13290

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	771,50	25,72	-2,1216	8
Sh. (Active)+Lot. (Active)	30	1058,50	35,28	2,1216	9

B'IOTA LABORATORIES

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | KRUSKAL-WALLIS ONE-WAY ANOVA ON RANKS | SELF ASSESSMENT DATA | SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

QUESTION #5

Hypotheses
H0: All medians are equal.
Ha: At least two medians are different.

Test Results

Method	DF	Chi-Square (H)	Prob Level	Decision(0,05)
Not Corrected for Ties	1	5,736393	0,016617	Reject H0
Corrected for Ties	1	6,12947	0,013295	Reject H0

Number Sets of Ties	5
Multiplicity Factor	13848

Group Detail

Group	Count	Sum of Ranks	Mean Rank	Z-Value	Median
Solution (Active)	30	753,00	25,10	-2,3951	8
Sh. (Active)+Lot. (Active)	30	1077,00	35,90	2,3951	9

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: NO. OF HAIRS | SHAMPOO (ACTIVE)

NO. OF HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+Sbc
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

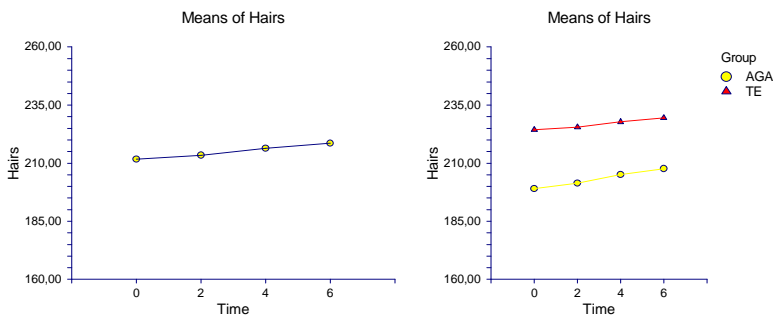| Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	16465,68	16465,68	12,35	0,001520*	
B(A): Subject	28	37333,66	1333,345			
C: Time	3	828,5707	276,1902	14,61	0,026985*	0,802419
AC	3	56,70402	18,90134	1,42	0,242161	
BC(A)	84	1116,721	13,2943			
S	0					
Total (Adjusted)	119	55776,59				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	12,35	0,001520*			
B(A): Subject	28					
C: Time	3	14,61	0,026985*			
AC	3	1,42	0,242161	0,243121	0,248701	0,246632
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	12,35	0,923828			
B(A): Subject	28					
C: Time	3	14,61	0,802419			
AC	3	1,42	0,364565	0,210411	0,309129	0,330111
BC(A)	84					
S	0					

Plots Section

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: NO. OF HAIRS | SOLUTION (ACTIVE)

NO. OF HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

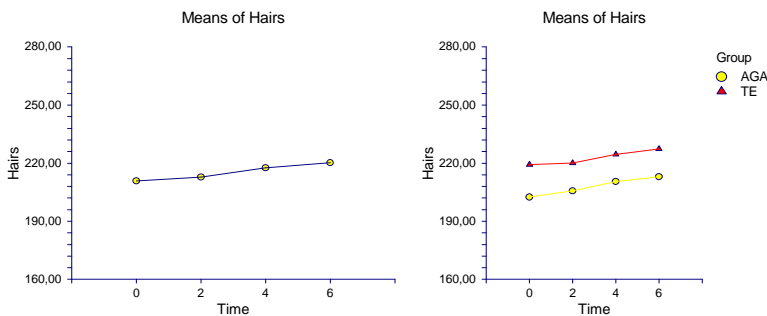| Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	6520,456	6520,456	3,30	0,079963	
B(A): Subject	28	55310,71	1975,383			
C: Time	3	1626,168	542,056	48,20	0,004888*	0,997681
AC	3	33,73469	11,2449	1,04	0,379751	
BC(A)	84	909,2986	10,82498			
S	0					
Total (Adjusted)	119	64384,67				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	3,30	0,079963			
B(A): Subject	28					
C: Time	3	48,20	0,004888*			
AC	3	1,04	0,379751	0,316829	0,367958	0,373883
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	3,30	0,418702			
B(A): Subject	28					
C: Time	3	48,20	0,997681			
AC	3	1,04	0,272598	0,166292	0,238630	0,254126
BC(A)	84					
S	0					

Plots Section

Means of Hairs

Means of Hairs

Group
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STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: NO. OF HAIRS | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

NO. OF HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

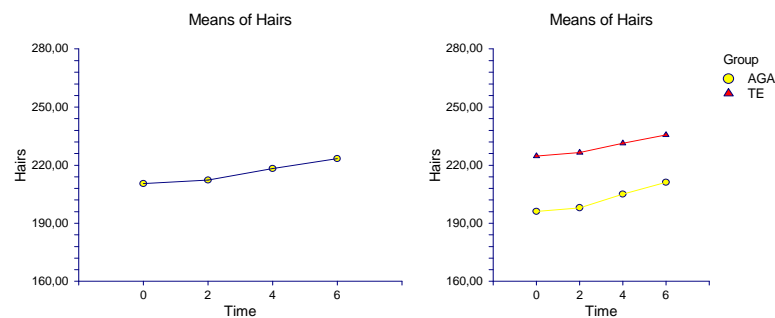| Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	21375,13	21375,13	11,91	0,001791*	
B(A): Subject	28	50256,21	1794,865			
C: Time	3	3054,583	1018,194	34,12	0,008086*	0,984322
AC	3	89,51595	29,83865	1,01	0,392497	
BC(A)	84	2481,509	29,54177			
S	0					
Total (Adjusted)	119	77172,59				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	11,91	0,001791*			
B(A): Subject	28					
C: Time	3	34,12	0,008086*			
AC	3	1,01	0,392497	0,323498	0,374183	0,380658
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

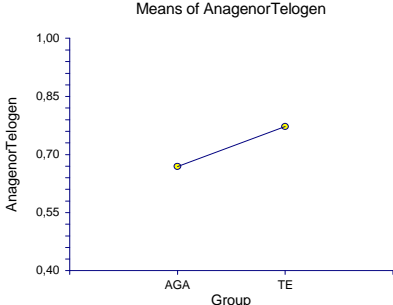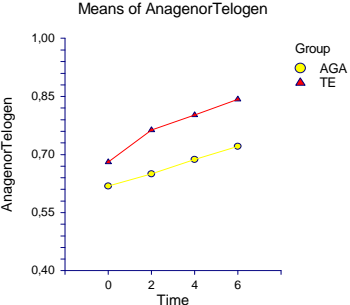| Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	11,91	0,914720			
B(A): Subject	28					
C: Time	3	34,12	0,984322			
AC	3	1,01	0,265709	0,162989	0,223584	0,236428
BC(A)	84					
S	0					

Plots Section

Means of Hairs

Means of Hairs

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: NO. OF HAIRS | SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

NO. OF HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	26485,46	26485,46	18,98	0,000160*	
B(A): Subject	28	39062,34	1395,084			
C: Time	3	8,80878	2,93626	0,29	0,832199	0,069501
AC	3	30,44211	10,14737	0,74	0,528960	
BC(A)	84	1146,025	13,64315			
S	0					
Total (Adjusted)	119	66735,3				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	18,98	0,000160*			
B(A): Subject	28					
C: Time	3	0,29	0,832199			
AC	3	0,74	0,528960	0,395782	0,477406	0,490299
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	18,98	0,987566			
B(A): Subject	28					
C: Time	3	0,29	0,069501			
AC	3	0,74	0,202776	0,132516	0,168576	0,176118
BC(A)	84					
S	0					

Plots Section

Means of Hairs

Means of Hairs

Group
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STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: % ANAGEN/%TELOGEN HAIRS | SHAMPOO (ACTIVE)

% ANAGEN or % TELOGEN HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	0,3152507	0,3152507	19,65	0,000130*	
B(A): Subject	28	0,449228	1,604386E-02			
C: Time	3	0,2860367	9,534556E-02	17,20	0,021508*	0,856828
AC	3	1,663402E-02	5,544673E-03	6,83	0,000358*	
BC(A)	84	6,821574E-02	8,120922E-04			
S	0					
Total (Adjusted)	119	1,145013				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	19,65	0,000130*			
B(A): Subject	28					
C: Time	3	17,20	0,021508*			
AC	3	6,83	0,000358*	0,014276*	0,002023*	0,001295*
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	19,65	0,989727			
B(A): Subject	28					
C: Time	3	17,20	0,856828			
AC	3	6,83	0,972048	0,713135	0,911933	0,933953
BC(A)	84					
S	0					

Plots Section

Means of AnagenorTelogen

Means of AnagenorTelogen

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: % ANAGEN/%TELOGEN HAIRS | SOLUTION (ACTIVE)

% ANAGEN or % TELOGEN HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+Sbc
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	0,6633101	0,6633101	72,78	0,000000*	
B(A): Subject	28	0,2551833	9,11369E-03			
C: Time	3	0,3868751	0,1289584	16,08	0,023632*	0,835244
AC	3	2,406599E-02	8,021996E-03	8,36	0,000063*	
BC(A)	84	8,064184E-02	9,600219E-04			
S	0					
Total (Adjusted)	119	1,436799				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	72,78	0,000000*			
B(A): Subject	28					
C: Time	3	16,08	0,023632*			
AC	3	8,36	0,000063*	0,007348*	0,000982*	0,000620*
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	72,78	1,000000			
B(A): Subject	28					
C: Time	3	16,08	0,835244			
AC	3	8,36	0,991004	0,796828	0,941686	0,956856
BC(A)	84					
S	0					

Plots Section

Means of AnagenorTelogen

Means of AnagenorTelogen

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: % ANAGEN/%TELOGEN HAIRS | SHAMPOO (ACTIVE) + SOLUTION (ACTIVE)

% ANAGEN or % TELOGEN HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	0,5415937	0,5415937	79,35	0,000000*	
B(A): Subject	28	0,1911133	6,825475E-03			
C: Time	3	0,7301275	0,2433758	13,51	0,030086*	0,773649
AC	3	5,406196E-02	1,802065E-02	16,52	0,000000*	
BC(A)	84	9,162374E-02	1,090759E-03			
S	0					
Total (Adjusted)	119	1,657506				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	79,35	0,000000*			
B(A): Subject	28					
C: Time	3	13,51	0,030086*			
AC	3	16,52	0,000000*	0,000353*	0,000022*	0,000011*
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	79,35	1,000000			
B(A): Subject	28					
C: Time	3	13,51	0,773649			
AC	3	16,52	0,999992	0,975100	0,996914	0,998164
BC(A)	84					
S	0					

Plots Section

Means of AnagenorTelogen

Means of AnagenorTelogen

STATISTICAL ANALYSIS: INTRAGROUP STATISTIC (TIME COURSE) | REPEATED MEASURES ANALYSIS OF VARIANCE (RM-ANOVA) | PHOTOTRICOGRAM DATA: % ANAGEN/%TELOGEN HAIRS | SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

% ANAGEN or % TELOGEN HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Mean Square
A: Group	1	No	B(A)	S+csB+bcsA
B(A): Subject	28	No	S(ABC)	S+csB
C: Time	3	Yes	AC	S+sBC+bsAC+absC
AC	3	No	BC(A)	S+sBC+bsAC
BC(A)	84	No	S(ABC)	S+sBC
S(ABC)	0	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

Analysis of Variance Table

Source Term	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0,05)
A: Group	1	0,1182386	0,1182386	5,62	0,024913*	
B(A): Subject	28	0,58941	2,105036E-02			
C: Time	3	4,164244E-03	1,388081E-03	0,60	0,659513	0,090729
AC	3	6,989444E-03	2,329815E-03	1,87	0,141004	
BC(A)	84	0,1046912	1,246324E-03			
S	0					
Total (Adjusted)	119	0,8241903				
Total	120					

* Term significant at alpha = 0,05

Probability Levels for F-Tests with Geisser-Greenhouse Adjustments

Source Term	DF	F-Ratio	Regular Prob Level	Lower Bound Epsilon Prob Level	Geisser Greenhouse Epsilon Prob Level	Huynh Feldt Epsilon Prob Level
A: Group	1	5,62	0,024913*			
B(A): Subject	28					
C: Time	3	0,60	0,659513			
AC	3	1,87	0,141004	0,182426	0,165429	0,160513
BC(A)	84					
S	0					

Power Values for F-Tests with Geisser-Greenhouse Adjustments Section

Source Term	DF	F-Ratio	Regular Power (Alpha=0,05)	Lower Bound Epsilon Power (Alpha=0,05)	Geisser Greenhouse Epsilon Power (Alpha=0,05)	Huynh Feldt Epsilon Power (Alpha=0,05)
A: Group	1	5,62	0,628638			
B(A): Subject	28					
C: Time	3	0,60	0,090729			
AC	3	1,87	0,468574	0,261798	0,365446	0,387195
BC(A)	84					
S	0					

Plots Section

Means of AnagenorTelogen

Means of AnagenorTelogen

Group
○ AGA
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STATISTICAL ANALYSIS: INTERGROUP STATISTIC | MULTIVARIATE ANALYSIS OF VARIANCE (MANOVA) | PHOTOTRICOGRAM DATA: NO. OF HAIRS | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

NO. OF HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Square
A: Group	1	No	AB	S+csAB+bcsA
B: Treatment	3	No	AB	S+csAB+acsB
AB	3	No	S(ABC)	S+csAB
C: Time	2	Yes		S+sABC+asBC+bsAC+absC
AC	2	No	ABC	S+sABC+bsAC
BC	6	No	ABC	S+sABC+asBC
ABC	6	No	S(ABC)	S+sABC
S(ABC)	336	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

MANOVA Tests Section

Term(DF) Test Statistic	Test Decision Value	DF1	DF2	F-Ratio	Prob Level	(0,05)
A(1):Group						
Wilks' Lambda	0,116836	1	3	22,68	0,017584	Reject
Hotelling-Lawley Trace	7,559026	1	3	22,68	0,017584	Reject
Pillai's Trace	0,883164	1	3	22,68	0,017584	Reject
Roy's Largest Root	7,559026	1	3	22,68	0,017584	Reject
TotalHairs	362,262651	1	3	22,68	0,017584	Reject
B(3):Treatment						
Wilks' Lambda	0,015826	3	3	62,19	0,003364	Reject
Hotelling-Lawley Trace	62,185706	3	3	62,19	0,003364	Reject
Pillai's Trace	0,984174	3	3	62,19	0,003364	Reject
Roy's Largest Root	62,185706	3	3	62,19	0,003364	Reject
TotalHairs	993,406616	3	3	62,19	0,003364	Reject
AB(3)						
Wilks' Lambda	0,996176	3	336	0,43	0,731668	Accept
Hotelling-Lawley Trace	0,003839	3	336	0,43	0,731668	Accept
Pillai's Trace	0,003824	3	336	0,43	0,731668	Accept
Roy's Largest Root	0,003839	3	336	0,43	0,731668	Accept
TotalHairs	15,974839	3	336	0,43	0,731668	Accept
C(2):Time						
AC(2)						
Wilks' Lambda	0,849451	2	6	0,53	0,612936	Accept
Hotelling-Lawley Trace	0,177231	2	6	0,53	0,612936	Accept
Pillai's Trace	0,150549	2	6	0,53	0,612936	Accept
Roy's Largest Root	0,177231	2	6	0,53	0,612936	Accept
TotalHairs	8,147582	2	6	0,53	0,612936	Accept
BC(6)						
Wilks' Lambda	0,092801	6	6	9,78	0,006921	Reject
Hotelling-Lawley Trace	9,775787	6	6	9,78	0,006921	Reject
Pillai's Trace	0,907199	6	6	9,78	0,006921	Reject
Roy's Largest Root	9,775787	6	6	9,78	0,006921	Reject
TotalHairs	149,802582	6	6	9,78	0,006921	Reject
ABC(6)						
Wilks' Lambda	0,992689	6	336	0,41	0,870675	Accept
Hotelling-Lawley Trace	0,007365	6	336	0,41	0,870675	Accept
Pillai's Trace	0,007311	6	336	0,41	0,870675	Accept
Roy's Largest Root	0,007365	6	336	0,41	0,870675	Accept
TotalHairs	15,323838	6	336	0,41	0,870675	Accept

Within Correlations\Covariances

	TotalHairs
TotalHairs	37,154

Within-Cell Correlations Analysis

Variable	R-Squared Other Y's	Canonical Variate	Eigenvalue	Percent of Total	Cumulative Total
TotalHairs	0,000000	1	1,000000	100,00	100,00

Analysis of Variance Table for TotalHairs

Source Term	Power DF (Alpha=0,05)	Sum of Squares	Mean Square	F-Ratio	Prob Level
A: Group	1	362,2627	362,2627	22,68	0,017584*
B: Treatment	3	2980,22	993,4066	62,19	0,003364*
AB	3	47,92451	15,97484	0,43	0,731668
C: Time	2	2161,012	1080,506		
AC	2	16,29516	8,147581	0,53	0,612936
BC	6	898,8155	149,8026	9,78	0,006921*
ABC	6	91,94303	15,32384	0,41	0,870675
S	336	12483,74	37,154		
Total (Adjusted)	359	18895,9			
Total	360				

* Term significant at alpha = 0,05

STATISTICAL ANALYSIS: INTERGROUP STATISTIC | MULTIVARIATE ANALYSIS OF VARIANCE (MANOVA) | PHOTOTRICOGRAM DATA: % ANAGEN/%TELOGEN | SHAMPOO (ACTIVE) vs. SOLUTION (ACTIVE) vs. SHAMPOO (ACTIVE) + SOLUTION (ACTIVE) vs. SHAMPOO (PLACEBO) + SOLUTION (PLACEBO)

% ANAGEN or % TELOGEN HAIRS

Expected Mean Squares Section

Source Term	DF	Term Fixed?	Denominator Term	Expected Square
A: Group	1	No	AB	S+csAB+bcsA
B: Treatment	3	No	AB	S+csAB+acsB
AB	3	No	S(ABC)	S+csAB
C: Time	2	Yes		S+sABC+asBC+bsAC+absC
AC	2	No	ABC	S+sABC+bsAC
BC	6	No	ABC	S+sABC+asBC
ABC	6	No	S(ABC)	S+sABC
S(ABC)	336	No		S

Note: Expected Mean Squares are for the balanced cell-frequency case.

MANOVA Tests Section

Term(DF) Test Statistic	Test Decision Value	DF1	DF2	F-Ratio	Prob Level	(0,05)
A(1):Group						
Wilks' Lambda	0,334613	1	3	5,97	0,092298	Accept
Hotelling-Lawley Trace	1,988531	1	3	5,97	0,092298	Accept
Pillai's Trace	0,665387	1	3	5,97	0,092298	Accept
Roy's Largest Root	1,988531	1	3	5,97	0,092298	Accept
AnagenorTelogen	0,202123	1	3	5,97	0,092298	Accept
B(3):Treatment						
Wilks' Lambda	0,068967	3	3	13,50	0,030104	Reject
Hotelling-Lawley Trace	13,499585	3	3	13,50	0,030104	Reject
Pillai's Trace	0,931033	3	3	13,50	0,030104	Reject
Roy's Largest Root	13,499585	3	3	13,50	0,030104	Reject
AnagenorTelogen	0,457386	3	3	13,50	0,030104	Reject
AB(3)						
Wilks' Lambda	0,900069	3	336	12,43	0,000000	Reject
Hotelling-Lawley Trace	0,111026	3	336	12,43	0,000000	Reject
Pillai's Trace	0,099931	3	336	12,43	0,000000	Reject
Roy's Largest Root	0,111026	3	336	12,43	0,000000	Reject
AnagenorTelogen	0,033881	3	336	12,43	0,000000	Reject
C(2):Time						
AC(2)						
Wilks' Lambda	0,423595	2	6	4,08	0,076007	Accept
Hotelling-Lawley Trace	1,360748	2	6	4,08	0,076007	Accept
Pillai's Trace	0,576405	2	6	4,08	0,076007	Accept
Roy's Largest Root	1,360748	2	6	4,08	0,076007	Accept
AnagenorTelogen	0,007598	2	6	4,08	0,076007	Accept
BC(6)						
Wilks' Lambda	0,121211	6	6	7,25	0,014728	Reject
Hotelling-Lawley Trace	7,250081	6	6	7,25	0,014728	Reject
Pillai's Trace	0,878789	6	6	7,25	0,014728	Reject
Roy's Largest Root	7,250081	6	6	7,25	0,014728	Reject
AnagenorTelogen	0,013494	6	6	7,25	0,014728	Reject
ABC(6)						
Wilks' Lambda	0,987949	6	336	0,68	0,663439	Accept
Hotelling-Lawley Trace	0,012198	6	336	0,68	0,663439	Accept
Pillai's Trace	0,012051	6	336	0,68	0,663439	Accept
Roy's Largest Root	0,012198	6	336	0,68	0,663439	Accept
AnagenorTelogen	0,001861	6	336	0,68	0,663439	Accept

Within Correlations\Covariances

	AnagenorTelogen
AnagenorTelogen	2,724699E-03

Within-Cell Correlations Analysis

Variable	R-Squared Other Y's	Canonical Variate	Eigenvalue	Percent of Total	Cumulative Total
AnagenorTelogen	0,000000	1	1,000000	100,00	100,00

Analysis of Variance Table for AnagenorTelogen

Source Term	Power DF (Alpha=0,05)	Sum of Squares	Mean Square	F-Ratio	Prob Level
A: Group	1	0,2021231	0,2021231	5,97	0,092298
B: Treatment	3	1,372157	0,4573858	13,50	0,030104*
AB	3	0,1016444	3,388147E-02	12,43	0,000000*
C: Time	2	0,1301207	6,506036E-02		
AC	2	1,519554E-02	7,597769E-03	4,08	0,076007
BC	6	8,096202E-02	1,349367E-02	7,25	0,014728*
ABC	6	1,116705E-02	1,861175E-03	0,68	0,663439
S	336	0,9154989	2,724699E-03		
Total (Adjusted)	359	2,930404			
Total	360				

* Term significant at alpha = 0,05