Anti Hair Loss Effect of MKMS24

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Study Objectives

Effect of MKMS24 against hair loss

Sponsor
GPL German Pharma Laboratories GmbH

Study Design

This was a randomized, double-blinded, intra-individual comparative cosmetic study. A total of 30 subjects participated in the study that was conducted at German Pharma Laboratories. The study started in September and ended in December 2016 with a duration of 12 weeks.

Background

Hair loss can occur at any age, although it is more common in people aged 15 to 29. Approximately 30 to 40% of women experience hair loss. Men are considerably more affected by hair loss. Statistically 70% of men experience this issue.

In this trial, the investigators aim to confirm the efficacy and tolerance of Hair Activator Solutions, active 7% MKMS24, in the treatment of non-scarring diffuse alopecia areas using non-invasive technologies in treating hair loss. Hair Activator Solution contains active 7% MMS24, a unique anti-hair loss active that is based on Lentil, Thyme and Bamboo. MKMS24 strongly stimulates the dermal papilla to produce fibroblast growth factor 7 (FGF7) and the Noggin protein. Noggin has an indirect function, inhibiting the activity of bone morphogenetic protein 4 (BMP4), with a suppressive role in the transition from the Telogen phase to the Anagen. FGF7 directly stimulates the dermal papilla to start a new hair cycle. MKMS24 also acts by inhibiting 5 alpha reductases.

Patients and Methods

The subjects were 30 voluntary patients with diffuse hair loss, of 150 hair per day. In the last 90 days, the volunteers did not have previous treatments to confirm the efficacy of the treatment based on Hair Activator Solutions, active 7% MKMS24. Patients applied the product twice a day, morning, and evening, according to the manufacturer's instructions for a period of 12 weeks.
In addition, the study assessed the number of hair follicles at different stages of the hair growth cycle using non-invasive technologies and evaluated the properties of Hair Activator Solutions, with the questionnaire being voluntary. The parameters to be studied were evaluated through clinical examinations, instrumental methods and a questionnaire applied by professionals. During the study period, adverse reactions such as burning, itching, and peeling, as well as possible contraindication to the product were evaluated. Also, no additional hair growth hormones or silicone shampoo were used during this time frame.
The selected patients of the study had to fulfil the following characteristics:

- Volunteers diagnosed with non-scarred diffuse alopecia,
- Age between 20 and 65 years,

- No change in hormone therapy during the last 90 days or during the study,
- No topical or systemic treatments at the beginning of the study and/or 90 days before,
- No history of intolerance to topical products, and
- Signing of informed consent.

The study excluded patients with at least one of the following traits:

- Pregnancy or lactation,
- Current treatment for alopecia or during the last 6 months,
- Diagnosis of cicatricial alopecia,
- Anagen effluvium,
- History of allergic reactions to the product, which is used, or
- Systemic, cutaneous pathology or any medication that may alter the parameters to be evaluated.

Test area

- Shedding hair (collected hair to be counted)

Volunteers

- Number of individuals: 30
- Age: 25 – 65
- Sex: 20 males and 10 females
- Volunteers with an average hair loss of 150 lost hair per day

First, the type of alopecia was diagnosed. This was achieved by looking at the clinical history, carrying out a physical examination and, if necessary, conducting laboratory tests (hematologic, ferremia, thyroid profile).

Application

- Duration: 3 months

(meetings D0, D31, D61, D91 and 12 hair collections)

- Frequency: twice a day

Test parameter:

- Reduction of daily shedding hair:

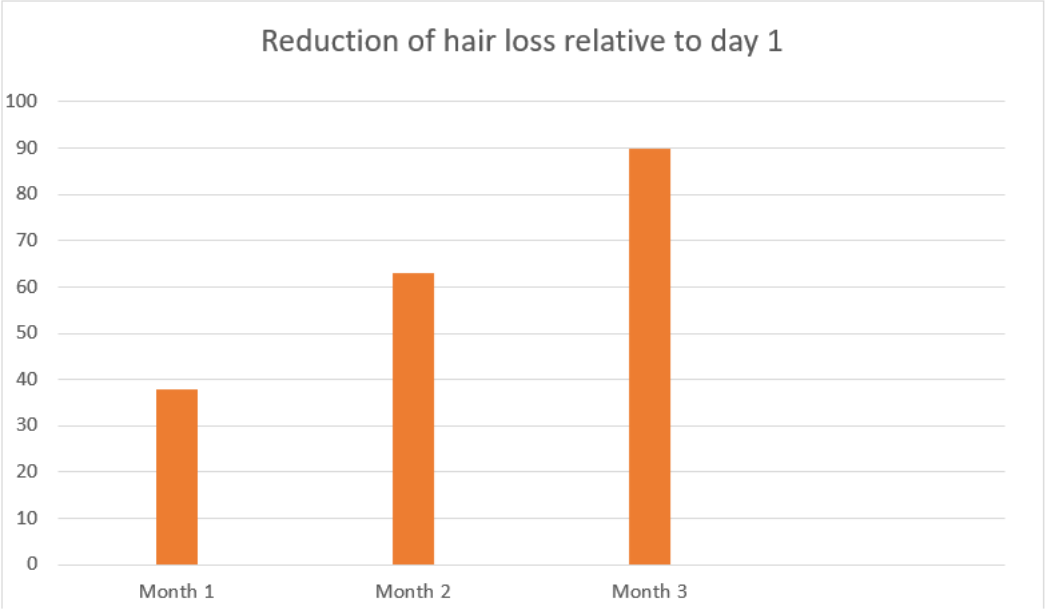
Quantifiable hair shedding reduction (hair count)
Study design:
The volunteers were randomly divided into two groups.
Group A: 15 Volunteers (10 males and 5 females) use 7% MKMS24 solution.
Group B: 15 Volunteers (10 males and 5 females) use a placebo.
Day 0-3 (3 days)
Baseline hair collection, hair counting.
Delivery of hair collection envelopes. Volunteers collected lost hair for 3 days (mornings and evenings- only combed hair and placed them in a prepared envelope- hair collection.
Day 0-91 (90 days)
The volunteers applied 7% MKMS24 solution twice a day- mornings and evenings.
Day 27-30 (3 days) – Day 57-60 and Day 87-90
The volunteers collected their hair loss in the morning and in the evening during the 3 days- only combed hair in the brush.
Day 31- Day 61 and Day 91
Collected hair counting.

Material and Methods

Collected hair counting.

Results

The products were delivered with the manufacturer's instructions and a standard shampoo was provided. It was instructed to issue a warning if any complaints arose and not to use any products that interact with the study (anti-hair loss shampoo, other treatments for hair loss etc.).
The subjects were 30 voluntary patients with diffuse non-scarring. In the last 90 days, the volunteers did not have previous treatments to confirm the clinical efficacy of the treatment based on Hair Activator Solutions, active 7% MKMS24. Patients applied the product twice a day, morning, and evening, according to the manufacturer's instructions for a period of 12 weeks.
In addition, the study assessed the number of hair follicles at different stages of the hair growth cycle using non-invasive technologies and evaluated the properties of Hair Activator Solutions. The parameters to be studied were evaluated through clinical examinations and instrumental methods. During the study period, adverse reactions such as burning, itching, and peeling, as well as possible contraindication to the product were evaluated. Also, no additional hair growth hormones or silicone shampoo were used during this time frame.
Group A
Results show that 7% MKMS24 solution reduces hair loss significantly.
After one month of treatment the shedding hair number dropped by 38%, after 2 months by 63% and after 3 months by 90%.
Group B
Show no reduction of hair loss.
In summary, 30 patients have completed the study. In total, there were 10 women (33%) and 20 men (67%), with the average age of the sample being 42,2 years.
After 12 weeks of treatment patients have significantly reduced hair loss.



None of the results presented above were associated with treatment response. Also, the response to the treatment was independent of the sex and age of the patient. There were no adverse effects associated with the use of the product. After 12 weeks of MKMS24 twice a day a significant hair loss of 90% was observed.