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SymPeptide® 226EL - XLash

NOVEL PEPTIDE

EYELASH / HAIR GROWTH

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CLINICAL STUDY
ANTI HAIR LOSS

Test design:

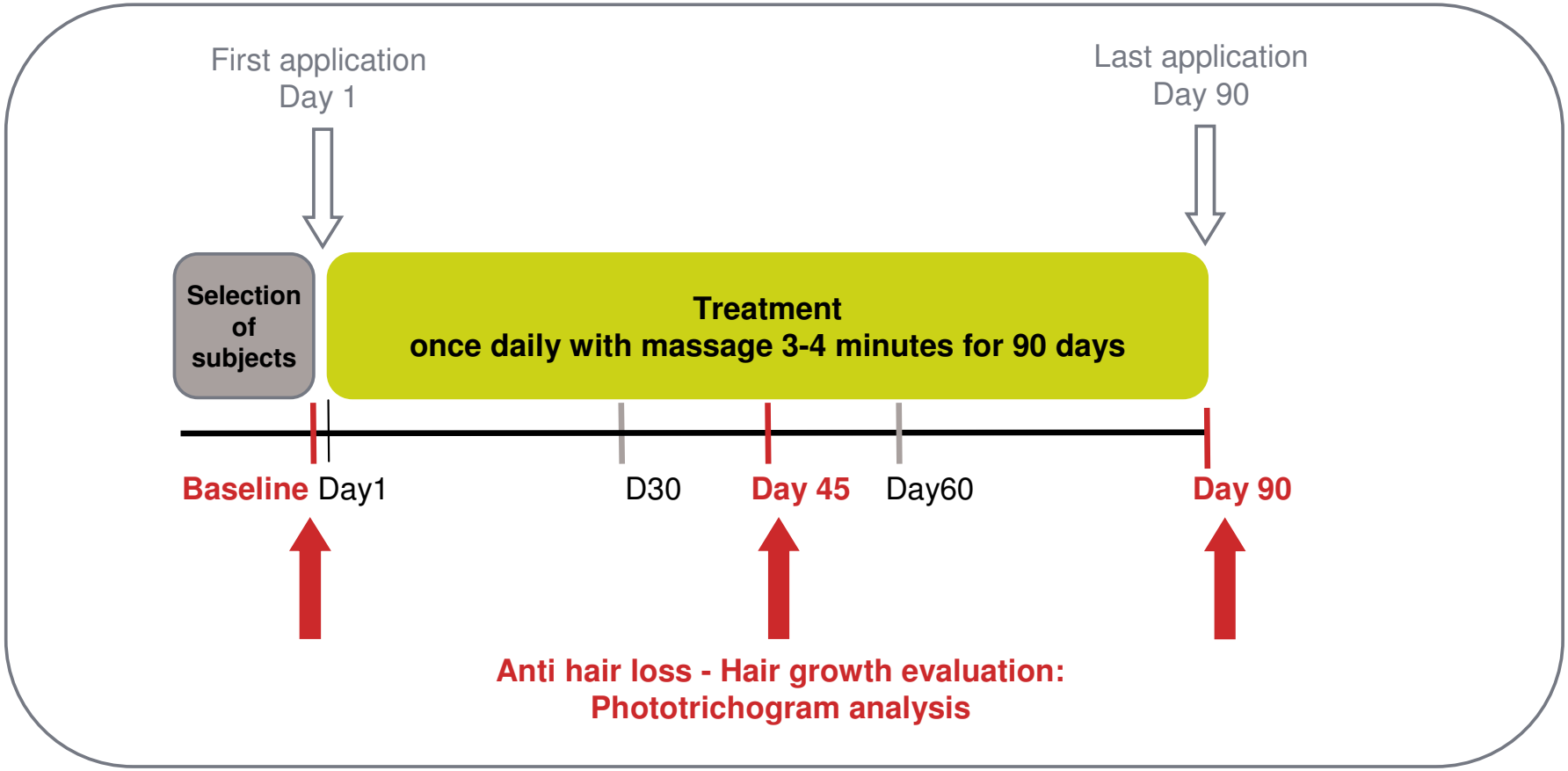
- Subjects: 24 subjects – male & female - with androgenetic alopecia (II–III stage of Hamilton's scale for men and I-II stage of Ludwig's scale for women, *see explanation in Appendix*)
- In androgenic alopecia, a progressive inversion of the normal anagen/telogen ratio due to the increase of the percentage of hair in rest phase is observed. A decrease in the number/ratio of hair in telogen phase to the anagen phase gives evidence of efficacy of the treatment
- Test area: scalp
- Test period: 3 months with measurements at 0, 45 and 90 days
- Hair shaved off in an area of 1cm2. 48 hours later, hair dyed with a black hair colour Test Products: double blind study - 12 subjects apply serum with 10% SymPeptide® 226EL and 12 apply serum without 226EL

CLINICAL STUDY
ANTI HAIR LOSS

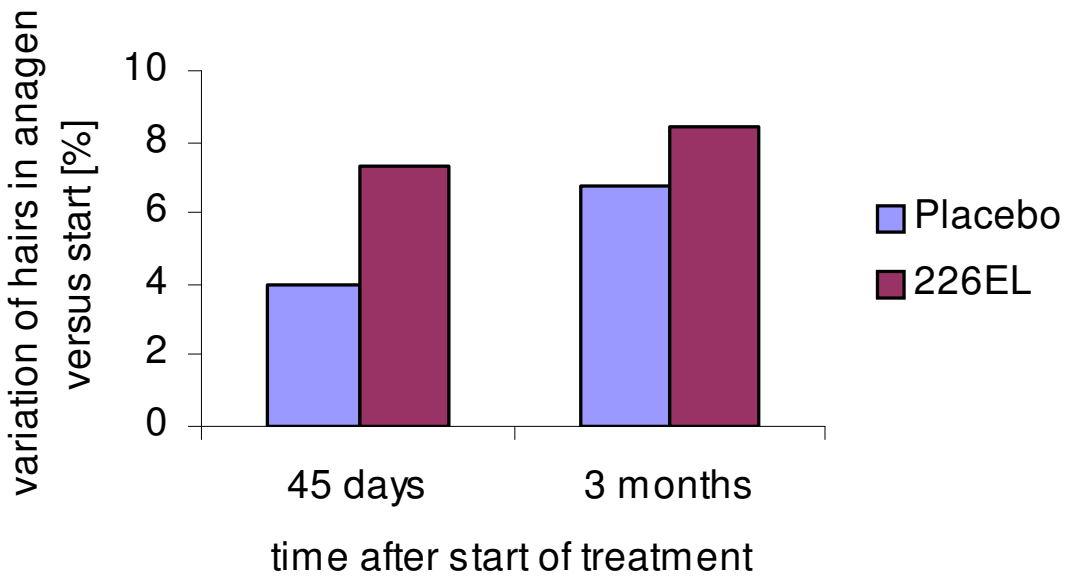
Protocol :

- Subjects spread 2ml of the product on the scalp and massage for 3-4 minutes without rinsing – once daily
- Wash their hair 48hours before each measurement and not to apply styling products during the 48 hours preceding the visit
- Digital image of 20-fold magnification (analyzed area 0.651cm2) taken by means of a epiluminescence microscopy system
- Area analysed by TrichoScan (Fotofinder Dermoscope and Trichoscan professional Ver. 2.0)
- Software analyzed the digital image and detected the number and percentage of hair in anagen phase and telogen phase in the area
- Measurements: hair growth evaluated as the following parameters by means of the phototrichogram analysis:
  - percentage and the number of anagen hair (growth phase)
  - percentage and the number of telogen hair (rest phase)

CLINICAL STUDY
PROTOCOL SCHEMATICALLY



CLINICAL STUDY RESULTS - ANAGEN



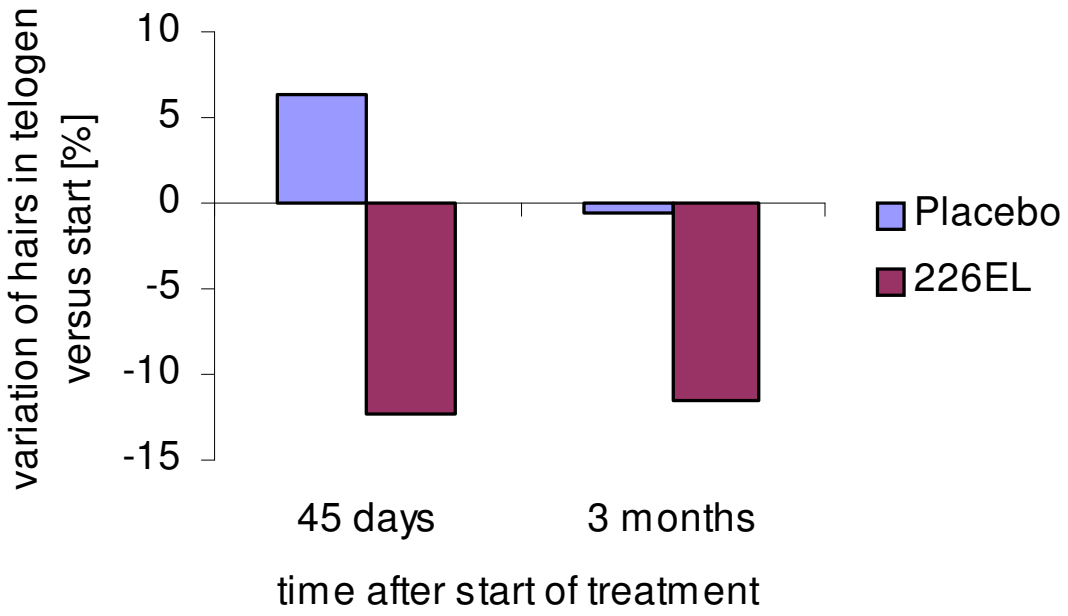
✓ **Serum with SymPeptide® 226EL showed more increase in anagen (growth phase) hair than serum without 226EL :**

- ➔ **+ 7.3% @ D45 and + 8.4% @ D90**
- ➔ **Placebo : +4% @ D45 and + 6.8% @ D 90**

✓ Statistical significance - p value (paired Ttest) versus placebo:

- ➔ p=0.051 @D45
- ➔ p=0.148 @D90

CLINICAL STUDY RESULTS - TELOGEN



✓ **Serum with SymPeptide® 226EL showed more decrease in telogen (rest phase) hair than serum without 226EL**

- ➔ **-12.% @ D45 and -11.6% @ D90**
- ➔ **Placebo : -6.3% @ D45 and -0.6% @ D90**

✓ Statistical significance - p value (paired Ttest) versus placebo:

- ➔ p=0.051 @D45
- ➔ p=0.160 @D90

CLINICAL STUDY DISCUSSION

- The percentage of anagen (growth phase) hair at the site treated with serum containing SymPeptide® 226EL showed more increase than the site treated with serum without 226EL
- The percentage of telogen (rest phase) hair at the site treated with SymPeptide® 226EL showed more decrease than the site treated with without 226EL
- Though the results are positive but not significant, they are interpreted by the test lab as good for a cosmetic ingredient, especially since the tested formulation is simple
- Better results could be expected by combining different actives and optimising the formulation

SymPeptide® XLash – NEW GRADE CONCLUSSION

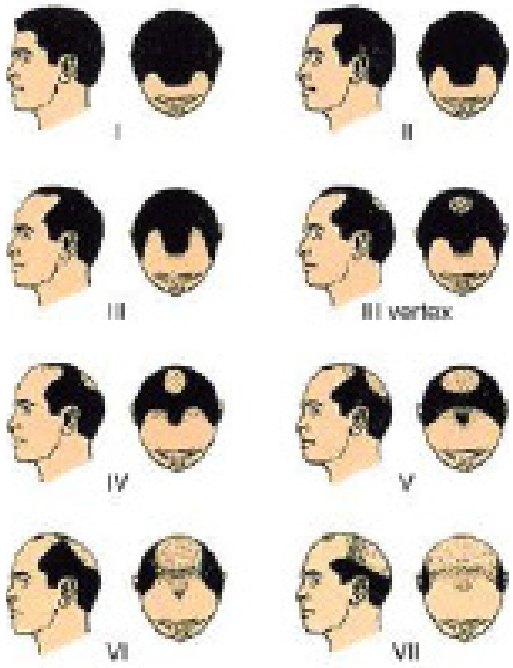
SymPeptide® XLash:

- New preserved grade replacing SymPeptide® 226EL
- Preservatives: 0.1% Benzoic acid + 0.1% Sodium Benzoate solubilised in 0.45% Hexanediol and 0.45% Caprylyl Glycol
- Sold as 1000ppm (0.10% peptide) solution in Glycerin/Water
- Colorless to pale beige solution with very low odor – no impact on formulation
- Use level: 2-10%
- Soluble in water, ethanol and glycols
- Stability at pH 4-8 and temperature up to100oC
- Bioavailable Lipo OligoPeptides (LOPs)
- Hair/eyelash growth enhancer

APPENDIX
ANDROGENETIC ALOPECIA

Also known as male pattern baldness, begins at the hairline

MALE PATTERN



The Norwood–Hamilton scale of male-pattern baldness

Published in Expert Reviews in Molecular Medicine by Cambridge University Press 2002

FEMALE PATTERN

Ludwig Hair Loss Scale

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