Trichogenic complex / Anti-hair loss active and conditioning — **Hair** care

EFFICACY TESTS ON HUMAN HAIR

Film-forming, bio-conditioning and repairing of dry hair (SEM and confocal microscopy).

Protocol

Dry hair was obtained by an acetone / ether blend (1:1). Hair being thus damaged was then treated with TRICHOGEN® VEG LS 8960 at 10% in aqueous solution.

Results (Fig. 1A and 1B)

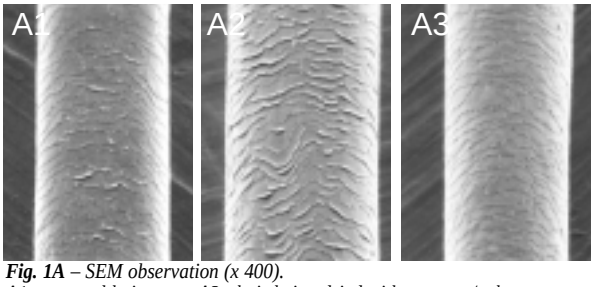


***Fig. 1A** – SEM observation (x 400).*
A1 - control hair. A2 - hair being dried with acetone / ether.
A3 - hair being dried and treated by TRICHOGEN® VEG LS 8960 at 10%.

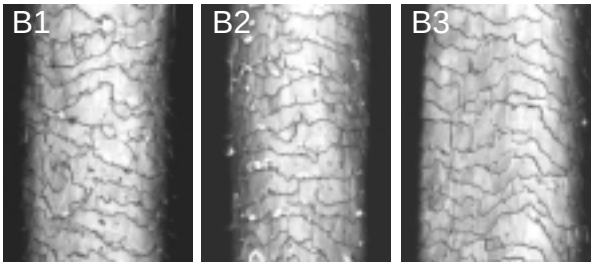


***Fig. 1B** – Confocal microscopy observation.*
B1 - control hair. B2 - hair being dried with acetone / ether.
B3 - hair being dried and treated by TRICHOGEN® VEG LS 8960.

Conclusion

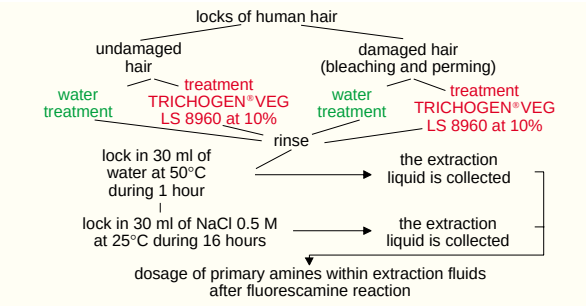
Hair drying results in a cuticle damage. The end of scales have been lifted (A2 and B2).
Hair being treated with TRICHOGEN® VEG LS 8960 (A3 and B3) has been coated with a protecting, substantive and conditioning microfilm. TRICHOGEN® VEG LS 8960 has clearly improved the microrelief of the hair stem.

Substantivity on hair (fluorescamine reaction).

Aim

Hair substantive products have the capacity to adsorb and to stick to keratin, and to resist to rinse.
The quantity of product adsorbed on hair is evaluated by reaction with fluorescamine after extraction in two different conditions: high temperature (50°C), and high ionic force (0.5 M NaCl).

Protocol



Results (Fig. 2 and 3)

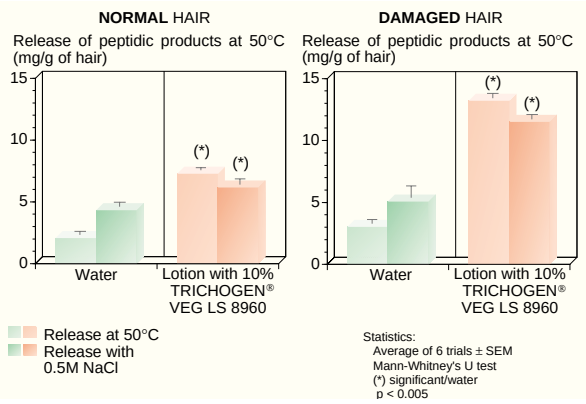


***Fig. 2** – Release of peptides from hair treated with TRICHOGEN® VEG LS 8960 or with water.*

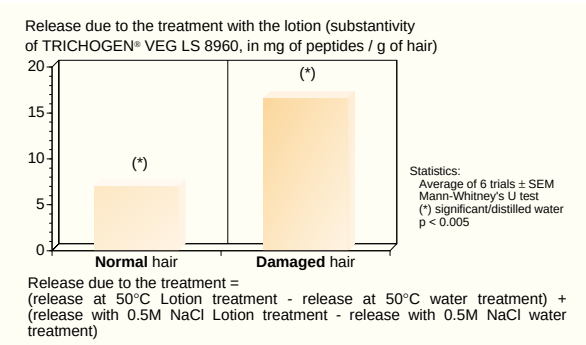


***Fig. 3** – Release due to the treatment with TRICHOGEN® VEG LS 8960 (mg of TRICHOGEN® VEG LS 8960 adsorbed by g of hair).*

Conclusion

The substantivity of TRICHOGEN® VEG LS 8960 has been demonstrated by the adsorption of 7 mg of TRICHOGEN® VEG LS 8960 per g of normal hair and 16.6 mg of TRICHOGEN® VEG LS 8960 per g of damaged hair (Fig. 3).

Conditioning effect.

Aim / Protocol (Fig. 4)

Quantitative evaluation of the force being necessary for combing a hair lock. Measurement before and after treatment by TRICHOGEN® VEG LS 8960.

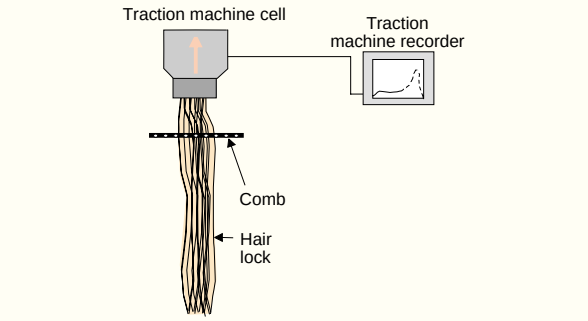


***Fig. 4** – Schema of the measuring device.*

Treatment of the lock with 5 ml of the lotion containing 10% of TRICHOGEN® VEG LS 8960, then rinse.
The lock in set on the traction machine (Fig. 4); recording of the combing force during 3 movements of the comb through the lock.

Results (Fig. 5 and 6)

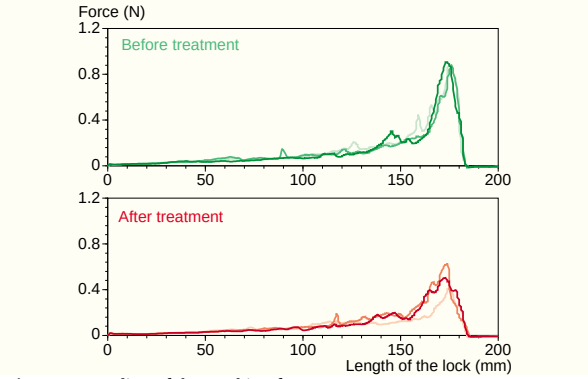


***Fig. 5** – Recording of the combing force.*

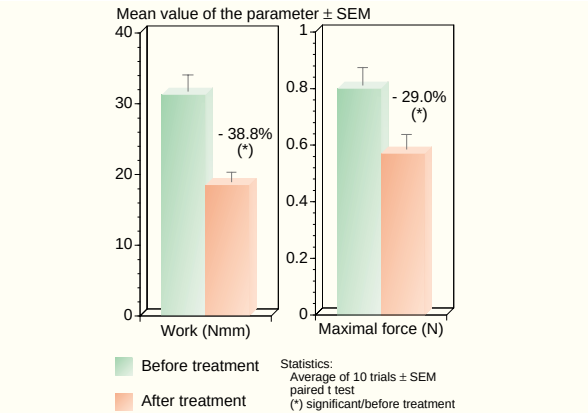


***Fig. 6** – Effect of the treatment on «Combability».*

Conclusion

The hair lotion containing 10% TRICHOGEN® VEG LS 8960 has significantly improved combing.
TRICHOGEN® VEG LS 8960 has shown good conditioning properties.

Photo-protection of human hair, against UV-B induced damage (dansyl chloride).

Aim / Protocol (Fig. 7)

A dansylation test has enabled to quantify by fluorimetry hair damage and protection.

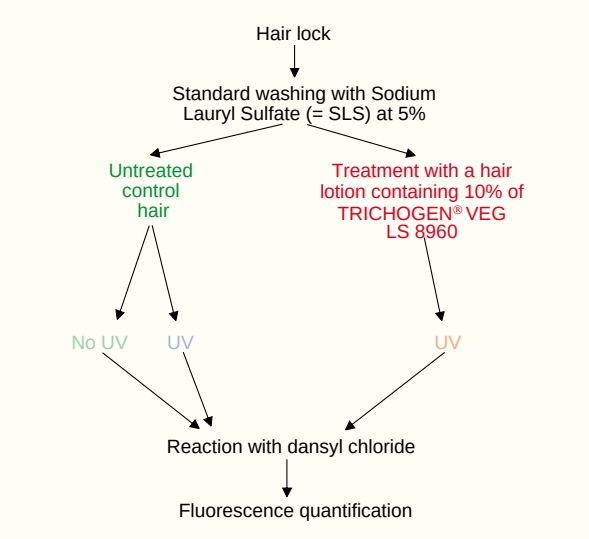


***Fig. 7** – Protocol.*

Results (Fig. 8)

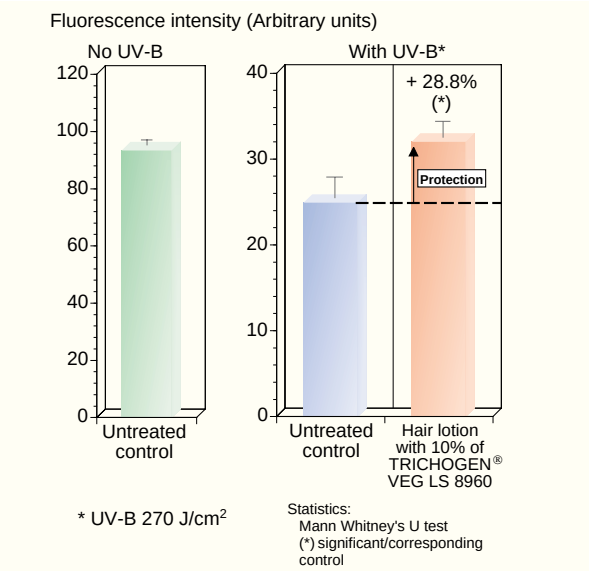


***Fig. 8** – Protecting effect against hair damage due to UV-B. TRICHOGEN® VEG LS 8960 has shown a clear photoprotecting effect.*

Conclusion

The protecting effect of the hair lotion can be seen by a difference in the fluorescence intensity of 28.8%.
The treatment with TRICHOGEN® VEG LS 8960 has protected hair against UV-B induced damaged.

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