Clinical Evaluation of Next-Generation, Multi-Weight Hyaluronic Acid Plus Antioxidant Complex-Based Topical Formulations with Targeted Delivery to Enhance Skin Rejuvenation

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Abstract

Introduction. Hyaluronic acid (HA) has become a commonly used ingredient in many topical moisturizing products due to its strong humectant property and essential role in skin hydration. Yet, HA alone has limitations due to its low intrinsic viscosity (IV), limiting its ability to penetrate the skin.

Materials and Methods. A double-blind study was conducted on 35 female subjects ages 25 to 65 years with mild to moderate facial dryness and visible fine lines and wrinkles, including subjects with Fitzpatrick Skin Types I-VI, with 20% having Fitzpatrick Skin Types V-VI. Clinical grading was conducted at baseline and Week 4.

Study 1: A double-blind, controlled study was conducted on 35 female subjects ages 25 to 65 years with mild to moderate facial dryness and visible fine lines and wrinkles, including subjects with Fitzpatrick Skin Types I-VI, with 20% having Fitzpatrick Skin Types V-VI. Clinical grading was conducted at baseline and Week 4.

Study 2: A double-blind, controlled study was conducted on 70 female subjects (n=35, multi-weight HA plus antioxidant complex lotion; n=35, multi-weight HA plus antioxidant complex gel cream) ages 25-65 years with Fitzpatrick Skin Types I-VI, with 20% having Fitzpatrick Skin Types V-VI. Clinical grading was conducted at baseline, 2 weeks, 4 weeks, and 8 weeks after once daily application in the morning.

Study 3: A double-blind, controlled study was conducted on 30 female subjects ages 25 to 65 years with mild to moderate facial dryness and visible fine lines and wrinkles, including subjects with Fitzpatrick Skin Types V-VI. Clinical grading was conducted at baseline and Week 4.

Study 4: A double-blind, controlled study was conducted on 42 female subjects, 70% ages 25-65 years with Fitzpatrick Skin Types I-VI, 20% Fitzpatrick Skin Types V-VI. Skin topometry was conducted in the periorbital region in vivo before and after once daily application in the morning.

Materials and Methods

Hyaluronic acid (HA) has become a commonly used ingredient in many topical moisturizing products due to its strong humectant property and essential role in skin hydration. Yet, HA alone has limitations due to its low intrinsic viscosity (IV), limiting its ability to penetrate the skin.

These data demonstrate the clinical benefits of daily use of multi-weight HA plus antioxidant complex-based topical formulations with targeted delivery to enhance skin rejuvenation, giving a youthful, healthy appearance.

Summary and Conclusions

• HA plays an essential role as a humectant, capable of binding up to 1000 times its mass with water, leading to both skin moisturization and extracellular matrix rigidity.

• Utilization of multi-weight HA plus antioxidant complex-based topical formulations maintains the skin surface and preserves the upper superficial layers of the skin, combined with the added benefit of key antioxidants, including vitamin E and plant-based antioxidants, which have been shown to induce endogenous HA synthesis and inhibit endogenous hyaluronidase activity in vitro, respectively.

• Here we describe the clinical efficacy data of a set of novel next-generation, multi-weight HA plus antioxidant complex-based topical formulations with targeted skin delivery to enhance skin rejuvenation, giving a youthful, healthy appearance.

• Daily use of the multi-weight HA plus antioxidant complex-based topical formulations demonstrated significant improvements in all parameters evaluated compared to baseline, with changes in new parameters observed within 10 minutes of application, and changes in all clinical parameters of dryness, roughness, fine lines and wrinkles observed as early as 2 weeks.

• These data demonstrate the clinical benefits of use of multi-weight HA plus antioxidant complex-based formulations for overall improvement in skin health and appearance.

REFERENCES


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