ABSTRACT BOOK ABSTRACTS



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AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## IN-VITRO AND IN-VIVO SKIN MOISTURIZING EFFECTS OF DOUBLE SQUEEZE GREEN TEA WATER

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Introduction: Green tea (Camellia sinensis) extract contains polyphenols, xanthines, vitamins, amino acids, microelements, and essential oils. We have developed a new variety of green tea (Jangwon No.2) via breeding by separation for obtaining the green tea leaves with increased amounts of amino acids and produced the 'double squeeze green tea water' ingredient from Jangwon No.2 using a double squeeze extraction technique.

Objective: The purpose of this study is to investigate the moisturizing effects of double squeeze green tea water based on from in-vitro experiments to in-vivo clinical studies.

Materials and Methods: To investigate whether double squeeze green tea water increases the mRNA expression level of three different moisturizing-related genes in normal human epidermal keratinocytes, we performed real-time PCR experiment. For clinical study, the level of epidermal hydration in 20 healthy subjects (20 – 30 years old) was measured by using a corneometer after applying the double squeeze green tea water.

Results: The treatment of double squeeze green tea water at 2% of concentration with normal human epidermal keratinocytes for 18 h significantly increased the level of filaggrin, loricrin, and caspase-14 mRNA expression up to 67%, 104%, and 30%, respectively. The hydration levels of forearm and facial skin were improved after short-term of moisturizer application compared to non-treated group.

Conclusions: Our results suggest that the moisturizer containing double squeeze green tea water may be helpful for improving skin hydration.



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