



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

BASIC AND CLINICAL RESEARCH FOR THE EFFECTS OF ASIAN TRADITIONAL VINEGARS ON SKIN AS A PROMISING INGREDIENT FOR COSMECEUTICAL

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Background: Black and Kudzu vinegar are produced during traditional fermentation process of rice and kudzu root. They used as a health booster for a long time in Asian countries. Various pharmacologic effects of them was previously studied, but limited to as an oral preparation. Considering the main ingredients of them are acetic acid, nutrients and phytoestrogens, topical use of them is also expected to make positive effects for various skin problems.

Objective: Our objectiveness is to investigate the effects and potential use of Black and Kudzu vinegar for skin problems as a topical preparation through basic and clinical studies.

Material and Methods: In vitro and in vivo studies for the pharmacologic actions of black and kudzu vinegar were done; 1) proliferation and migration of human keratinocytes and fibroblast, 2) collagen synthesis and change of various cytokines, 3) responses about oxygen stress, 4) effects on melanin synthesis 5) DNA microarray study for finding signal changes related to skin homeostasis. Additionally, two preliminary clinical trials for acne and aging skin were performed.

Results: Black vinegar showed powerful antioxidant and wound healing effect in basic studies and effectively reduced comedone and skin inflammation in clinical trial. Kudzu vinegar activated skin cell proliferation, new collagen synthesis and anagen hair induction in basic studies and improved wrinkle, dilated pore and female type hair loss in clinical study.

Conclusions: Through the basic and clinical studies, various pharmacologic effects of Black and Kudzu vinegar were clarified. Considering the many positive effects of two traditional vinegars, topical use of them for various aesthetic skin problems is very promising.

