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Jasmine rice panicle: a safe and efficient natural ingredient for skin aging treatments

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Summary*Ethnopharmacological relevance:*

While rice is one of the most important global staple food sources its extracts have found many uses as the bases of herbal remedies. Rice extracts contain high levels of phenolic compounds which are known to be bioactive, some of which show cutaneous benefits and activity towards skin disorders. This study highlights an assessment of the cellular activity and clinical efficacy of rice panicle extract, providing necessary information relevant to the development of new cosmetic products.

Materials and methods:

Jasmine rice panicle extract was standardized, and the level of phenolics present was determined. *In vitro* anti-aging, and extract activity towards melanogenesis was conducted in B16F10 melanoma cells, and antioxidant activity was assessed in human skin fibroblast cell cultures. Topical product creams containing the extract were developed, and skin irritation testing using a single application closed patch test method was done using 20 Thai volunteers. Randomized double-blind, placebo-controlled efficacy evaluation was undertaken in 24 volunteers over an 84 day period, with the results monitored by Corneometer[®] CM 825, Cutometer[®] MPA 580, Mexameter[®] MX 18 and Visioscan[®] VC 98.

Results: Jasmine rice panicle extract was shown to have a high content of *p*-coumaric, ferulic and caffeic acids, and was not cytotoxic to the cell lines used in this study. Cells treated with

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