COSMETICS/COSMECEUTICALS

NPARR 4(1), 2013-08 Preparation and evaluation of polyherbal cosmetic cream

The present study was to prepare and evaluate the polyherbal cosmetic cream comprising extracts of natural products such as Aloe vera, Cucumis sativus and Daucus carota. Different types of formulations oil in water (O/W) herbal creams namely F1 to F7 were formulated by incorporating different concentrations of stearic acid and cetyl alcohol. The evaluations of all formulations (F1 to F7) were done on different parameters like pH, viscosity, spreadibility and stability were examined. Formulations F6 and F7 showed good spreadibility, good consistency, homogeneity, appearance, pH, spreadibility, no evidence of phase separation and ease of removal. The formulation F6 and F7 shows no redness, edema, inflammation and irritation during irritancy studies. These formulations are safe to use for skin. These studies suggest that composition of extracts and base of cream of F6 and F7 are more stable and safe, it may produce synergistic action [Aswal, A., Kalra, M., Rout, A. (Ram Gopal College of Pharmacy, Gurgaon, Haryana-124507, India), Der Pharmacia Lettre, 2013, 5(1), 83-88].

NPARR 4(1), 2013-09 Mass production of chaff-vinegar and its effect of anti-aging and whitening

Chaff-vinegar is known for having a variety of useful purposes in the fields of health and life styles. In a previous study we isolated and identified the active fractions of the polyphenol compound 7 species as a potential biomaterial for cosmeceuticals. To further test for its potential use as a functional material, we carried out an MTT assay, collagenase inhibition assay, elastase inhibition assay, tyrosinase inhibition assay, DPPH free radical scavenging assay, SOD-like activity assay and a xanthine oxidase inhibition assay. Chaff-vinegar exhibited potent collagenase and elastase inhibitory activities in a concentration dependent manner, indicating that the agent has the potential to alleviate the skin wrinkling process. Chaff-vinegar also showed 80% tyrosinase inhibition at a concentration of 100 µL/mL. DPPH radical scavenging, xanthine oxidase inhibition, and SOD-like activity results for each activity were 80%, 80%, and 100%, respectively. Taken together, the present study suggests that chaff-vinegar is a good candidate for use as an anti-wrinkling and/or whitening agent [Hwang, J., Yun, J.-K., Kim, S.K., Lee, S.-H., Han, K.-H. Daegu* (Technopark Oriental Medicine Industry Support Center, Daegu 706-828, South Korea), Korean Journal of Microbiology and Biotechnology, 2012, 40 (3), 208-214].

NPARR 4(1), 2013-10 Beneficial effects of marine algal compounds in cosmeceuticals (Review)

The name "cosmeceuticals" is derived from "cosmetics and pharmaceuticals", indicating that a specific product contains active ingredients. Marine algae have gained much importance in cosmeceutical product development due to their rich bioactive compounds. In the present review, marine algal compounds (phlorotannins, sulfated polysaccharides and tyrosinase inhibitors) have been discussed toward cosmeceutical application. In addition, atopic dermatitis and the possible role of matrix metalloproteinase (MMP) in skin-related diseases have been explored extensively for cosmeceutical products. The proper development of marine algae compounds will be helpful in cosmeceutical product development and in the development of the cosmeceutical industry [Thomas, N.V., and, S.-K.*(Marine Bioprocess Research Center, Pukyong National University, Busan 608-737, South Korea), Marine Drugs, 2013, 1(1), 146-164].
Potential cosmetic application of essential oil extracted from *Litsea cubeba* fruits from China

*Litsea cubeba* essential oil (LCEO) is widely used as a flavor enhancer in cosmetics and as a folk skin-care agent in southern China. The objective of this paper is to investigate whether LCEO has biological activities that might be useful in modern skin-protection formulations. The present study results revealed that citral (57.4%) was a major component, while LCEO exhibited a potent inhibitory effect on tyrosinase (IC\textsubscript{50} values 100 µg/mL), good antioxidative activities (IC\textsubscript{50}: 17.75 mg/mL for ABTS\textsuperscript{•+}, 10.2 mg/mL for O\textsubscript{2} \textsuperscript{•−}), and apparent protective effect against UV–TiO\textsubscript{2}–NO\textsubscript{2}–-induced protein oxidation at 0.01 mg/mL and tyrosine nitration at 0.1 mg/mL. Additionally, the biological activities of LCEO were compared with that of its main constituents. The results demonstrated that any individual major component was not the unique contributor to the high activity of LCEO. Based on these results, we suggested that LCEO could serve as a new natural skin-whitening agent [Xiao-Wei Huang*, Yun-Chao Feng, Yi Huang & Hai-Ling Li (School of Chemistry & Chemical Engineering, Huazhong University of Science & Technology, Wuhan, PR China), *Journal of Essential Oil Research*, 2013, 25].