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Comparison of Vitamin C(Magnesium Ascorbyl Phosphate) Formulationin Nanoemulsion Spray andCream as Anti-aging

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Abstract:Vitamin C has important role in stimulating the formation of collagen and reducing hyperpigmentation on the skin. However vitamin C has low bioavailability if consumed orally and unstable in form of ascorbic acid. Vitamin C being formulated in a stable nanoemulsion spray and cream with various concentration. Preparations were applied twice a day for 12 weeks on the back hand of 12 volunteers. In every 2 weeks, moisture, evenness, pore and spot of skin was measured by a device called Skin Analyzer Aramo. Nanoemulsion spray containing 10% of vitamin C gave a significant difference in increasing moisture, smoother the skin and reducing hyperpigmentation of back hand skin from volunteers. Different preparations showed a difference in anti-aging activity.Nanoemulsion spray of 10% vitamin C showed better antiaging activity in increasing moisture, smoother the skin and reducing hyperpigmentation on skin compared to 10% vitamin C in cream preparation. Though in reducing the size of pore, nanoemulsion spray did not significantly different from cream preparation. **Keywords:** anti-aging, cream, nanoemulsion spray, vitamin C.

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