

The Antioxidant Gel Mask Supplies Of Bitter Melon's Extract (*Momordica charantia* Linn.)

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Abstract : Skin is an important and vital organs and also as a mirror of health and life. Facial skin care is one of the main emphasis to get the beautiful, healthy, and fresh skin. Potentially antioxidant phenolic compounds shows, antimutagen, antitumor, anti-inflammatory, and anti-cancer. Flavonoids are a group of polyphenolic compounds that have the nature of free radicals, inhibiting the oxidative and hydrolytic enzymes as well as anti-inflammatory. Bitter melon (*Momordica charantia* Linn) is a plant that contains flavonoids, and phenolic antioxidant activity. Bitter melon has strong antioxidant activity that can counteract the free radicals. These compounds can prevent free radicals that cause premature aging. Gel masks including depth cleansing is the cosmetics which work in depth and could raise the dead skin cells. Measurement of antioxidant activity of the extract and gel mask is done by using the immersion method of DPPH. IC50 value of ethanol extract of bitter melon fruit of 287.932 ppm. The preparation of gel mask bitter melon fruit extract, necessary to test the effectiveness of antioxidants using DPPH method is done by measuring the inhibition of DPPH and using UV spectrophotometer at the wavelength of maximum DPPH solution. Tests conducted at the beginning and end of the evaluation (day 0 and day 28). The purpose of this study is to determine the antioxidant activity of the bitter melon's extract and to determine the antioxidant activity of ethanol extract gel mask pare in varying concentrations, ie 1xIC100 (0.295%), 2xIC100 (0.590%) and 4xIC100 (1.180%). Evaluation of physical properties of the preparation on (Day-0,7,14,21, and 28) and evaluation of antioxidant activity (day 0 and 28). Data were analyzed using One Way ANOVA to determine differences in the physical properties of each formula. The statistical results showed that differences in the formula and storage time affects the adhesion, dispersive power, dry time and pH it is shown on a significant value of $p < 0.05$, but longer storage does not affect the pH because the significance value $p > 0.05$. The antioxidant test showed that there are differences in antioxidant activity in all formulas. Measurement of antioxidant activity of bitter melon fruit extract gel mask on day 0 with a concentration of 0.295%, 0.590%, and 1.180%, respectively, are 124,209.277 ppm, ppm 83819.223 and 47323.592 ppm, whereas day 28 consecutive 130 411, 495 ppm, and 53239.806 95561.645 ppm ppm. The Conclusions drawn that there are antioxidant activity in preparation gel mask of bitter melon fruit extract. The antioxidant activity of bitter melon fruit extract gel mask on the day 0 with a concentration of 0.295%, 0.590%, and 1.180%, respectively, are 124,209.277 ppm, ppm 83819.223 and 47323.592 ppm, whereas on day 28 of antioxidant activity gel mask bitter melon fruit extract with a concentration of 0.295%, 0.590%, and 1.180% in succession, namely: 130,411.495 ppm, ppm 95561.645 and 53239.806 ppm.

Keywords : antioxdant, bitter melon, gel mask, IC50

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