

INTISARI

FEBRIANTI, AP., 2020, Uji Aktivitas Anti Aging Krim Ekstrak Etanol Kulit Buah Rambutan (*Nephelium lappaceum* L.) Pada Kulit Punggung Kelinci New Zealand Yang Dipapar Sinar UV-A, Skripsi, Fakultas Farmasi, Universitas Setia Budi, Surakarta.

Paparan sinar matahari dapat memberikan pengaruh pada kulit salah satunya adalah mempercepat penuaan pada kulit. Efek sinar UV yang bersifat sebagai sumber radikal bebas dapat dicegah dengan senyawa antioksidan. Kulit buah rambutan merupakan tanaman yang mengandung antioksidan yang sangat tinggi dengan mengandung senyawa flavonoid. Penelitian ini bertujuan untuk mengetahui apakah krim ekstrak etanol kulit buah rambutan dapat memberikan efek *anti aging* secara *in vivo* menggunakan kelinci New Zealand yang dipapar sinar UV-A.

Ekstrak kulit buah rambutan (*Nephelium lappaceum* L.) dibuat sediaan krim dan kemudian dilakukan uji mutu fisik dan uji stabilitas. Pengujian aktivitas *antiaging* dilakukan dengan menggunakan 4 ekor kelinci dengan cara bulu kelinci dicukur dan diinduksi sinar UV-A sehari 6 jam selama 2 minggu. Kulit punggung kelinci dioles krim ekstrak kulit buah rambutan dengan variasi konsentrasi 3; 6; 9% dan kontrol negatif. Pengolesan dilakukan selama 28 hari dan dilakukan pengukuran parameter persen kolagen, kelembaban, elastisitas dan luas pori dengan menggunakan alat *Skin Analyzer*.

Hasil uji mutu fisik F1, F2, F3, dan F4 memenuhi syarat organoleptis, homogenitas, pH, viskositas dan daya sebar. Hasil uji stabilitas F1, F2, F3, dan F4 memenuhi syarat organoleptis dan viskositas. Hasil uji keamanan primer menunjukkan bahwa krim ekstrak kulit buah rambutan sangat sedikit mengiritasi kulit sedangkan pada uji iritasi okuler krim tidak mengiritasi. Hasil penelitian menunjukkan bahwa krim ekstrak kulit buah rambutan dengan konsentrasi 3% sudah efektif sebagai krim *antiaging*.

Kata kunci : ekstrak kulit buah rambutan, aktivitas *anti aging*, krim, uji keamanan

ABSTRACT

FEBRIANTI, AP., 2020, TEST OF ACTIVITIES ANTI-AGING CREAM ETHANOL EXTRACT OF RAMBUTAN ON RABBIT NEW ZEALAND LEATHER SKIN WHICH IS USED BY UVA RAYS, SKRIPSI, FACULTY PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Sunlight exposure to our skin, of which we're accustomed to in our daily life, actually affect the speed of our skin aging. The effect of UV light, of which it is a source of free radicals, can be prevented with antioxidant compound. Antioxidant compound is an antiradical compound that could neutralize reactive free radicals and turn it into its relatively more stable non-reactive state so it's able to protect the cells from the dangerous effects of free radicals. Rambutan fruit skin contains high level of flavonoid, a kind of antioxidant compound. The easiest mechanism to administer the extract is to make it into cream based cosmetic. This research is done to ascertain whether or not rambutan skin ethanol extract cream could endow anti-aging effect *in vivo* to UV-A exposed New Zealand rabbit.

Rambutan (*Nephelium lappaceum* L.) extract processed into cream, before then tested for its physical quality and stability. The anti-aging activity test is done to 4 rabbits, of which their back fur shaved and the inducted to UV-A exposure, 6 hours a day for 2 weeks. The back hide of the rabbit will then administered with rambutan extract cream of varying concentration: 3%, 6%, and 9%, with negative control. The administration will be done for 28 days and measured using Skin Analyzer every week for four weeks. The factors observed in this experiments are collagen percentage, skin moisture, elasticity, and pore width.

Physical quality test resulted to F1, F2, F3, and F4 all passed the organoleptic, homogeneity, pH, viscosity, and spread power condition. Stability test for F1, F2, F3, and F4 resulted in them qualifying its organoleptic and viscosity condition. Primary safety test shows that the rambutan skin extract cream does mildly irritate the skin, whilst ocular irritation test on the cream resulted in no irritation. The research shows that rambutan skin extract cream with 3% concentration gave the most effective anti-aging effect.

Keywords: rambutan extract, anti-aging activity, cream, safety test