INTISARI

APRILIANI M., 2020, UJI AKTIVITAS *ANTI-AGING* KRIM EKSTRAK ETANOL DAUN UBI JALAR UNGU PADA KULIT PUNGGUNG KELINCI NEW ZEALAND YANG DIPAPAR SINAR UV-A, PROPOSAL, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Paparan sinar UV, polusi dan pola hidup tidak sehat memicu terbentuknya radikal bebas yang dapat mempercepat proses penuaan pada kulit. Senyawa flavonoid dalam daun ubi jalar ungu berkhasiat sebagai antioksidan yang mampu menetralisir radikal bebas sehingga dapat memperbaiki tanda-tanda penuaan pada kulit. Penelitian ini bertujuan untuk mengetahui pembuatan krim dengan mutu fisik dan stabilitas yang baik, mengetahui aktivitas krim ekstrak daun ubi jalar ungu sebagai *antiaging* secara *in vivo* menggunakan kelinci *New Zealand* yang dipapar sinar UV-A, serta uji keamanan dengan parameter iritasi primer dan okuler.

Ekstrak daun ubi jalar dibuat dengan menggunakan metode maserasi, kemudian ekstrak dilakukan identifikasi kandungan kimia. Ekstrak dibuat sediaan krim dan diuji mutu fisiknya. Pengujian aktivitas *antiaging* menggunakan alat *skin analyzer* terhadap 5 ekor kelinci. Bulu kelinci dicukur, induksi sinar UV-A dilakukan 6 jam sehari selama 2 minggu. Kulit punggung kelinci dioles krim ekstrak daun ubi jalar ungu selama 28 hari. Pengamatan parameter persen kolagen, persen elastisitas, persen kelembaban, dan luas pori dilakukan sebelum induksi, sesudah induksi dan setelah punggung kelinci dioles krim.

Hasil penelitian menunjukkan semua formula memenuhi syarat mutu fisik dan stabilitas. Hasil krim ekstrak daun ubi jalar ungu 10% paling efektif memberikan efek *antiaging* dengan parameter persen kolagen, persen elastisitas, persen kelembaban dan luas pori. Hasil uji iritasi primer menunjukkan krim sedikit mengiritasi. Hasil uji iritasi okuler menunjukkan krim tidak mengiritasi.

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kata kunci : ekstrak daun ubi jalar ungu, aktivitas *antiaging*, krim, *skin analyzer*

ABSTRACT

APRILIANI M., 2020, ANTI-AGING ACTIVITY TESTS OF ETHANOL EXTRACT OF PURPLE SWEET POTATO LEAF (*Ipomoea batatas* L.) CREAM IN A NEW ZEALAND RABBIT LEATHER, TREATED WITH UV-A RAY, SKRIPSI, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Exposure to UV light, pollution and unhealthy lifestyles trigger the formation of free radicals that can accelerate the aging process on the skin. Flavonoid compounds in purple sweet potato leaves have antioxidant properties that can neutralize free radicals so that they can improve the signs of aging on the skin. This study aims to determine the manufacture of cream with good physical quality and stability, determine the activity of purple sweet potato leaf extract cream as antiaging in vivo using New Zealand rabbits exposed to UV-A rays, as well as safety tests with primary and ocular irritation parameters.

Purple sweet potato leaf extract was made using maceration method, then the extract was carried out to identify the chemical content. The extract is made as a cream preparation and tested for physical quality. Antiaging activity testing using a skin analyzer against 5 rabbits. Shaved rabbit hair, induction of UV-A rays is carried out 6 hours a day for 2 weeks. Rabbit's back skin is applied with cream of purple sweet potato leaf extract for 28 days. The parameters of percent collagen, percent elasticity, percent humidity, and pore area were observed before induction, after induction and after the rabbit's back was applied with cream.

The results showed that all formulas met the physical quality and stability requirements. The results of 10% purple sweet potato leaf cream extract are the most effective antiaging effect with parameters of percent collagen, percent elasticity, percent humidity and pore area. Primary irritation test results show the cream is slightly irritating. Ocular irritation test results show the cream does not irritate.

key words: purple sweet potato leaf extract, *antiaging* activity, cream, *skin analyzer*