

INTISARI

DEBIANA, TS., 2021, UJI AKTIVITAS ANTI AGING SEDIAAN EMULGEL MINYAK JINTAN HITAM (*Nigella sativa* L.) PADA PUNGGUNG KELINCI NEW ZEALAND (*Oryctolagus cuniculus*) YANG DIPAPAR SINAR UV-A, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Paparan sinar UV-A dapat memicu terbentuknya radikal bebas yang berperan mempercepat penuaan kulit. Efek dari radikal bebas dapat dicegah dengan antioksidan. Minyak jintan hitam (*Nigella sativa* L.) mengandung senyawa *thymoquinone* yang memiliki aktivitas sebagai antioksidan. Formulasi sediaan emulgel dibuat untuk mempermudah pengaplikasian. Penelitian ini bertujuan untuk mengetahui apakah emulgel minyak jintan hitam dapat memberikan aktivitas *anti aging* pada punggung kelinci yang dipapar sinar UV-A.

Minyak jintan hitam (*Nigella sativa* L.) dilakukan karakterisasi dan identifikasi kandungan kimia. Minyak dibuat sediaan emulgel dengan konsentrasi 10, 15, dan 20%, kemudian dilakukan uji mutu fisik dan stabilitas. Pengujian aktivitas *anti aging* menggunakan 5 ekor kelinci yang dicukur bulu punggungnya kemudian dipapar sinar UV-A selama 2 minggu, setelah itu diberikan perlakuan selama 28 hari. Pengamatan parameter meliputi persentase kolagen, elastisitas, dan kelembaban menggunakan *Skin Analyzer*.

Hasil penelitian didapatkan sediaan emulgel memiliki mutu fisik dan stabilitas yang baik. Hasil uji iritasi primer menunjukkan emulgel sangat sedikit mengiritasi. Pengujian aktivitas *anti aging* menunjukkan emulgel minyak jintan hitam konsentrasi dengan konsentrasi 20% memberikan efek *anti aging* paling baik.

Kata kunci : aktivitas *anti aging*; emulgel; minyak jintan hitam; *skin analyzer*

ABSTRACT

DEBIANA, TS., 2021, ANTI AGING ACTIVITY TEST OF EMUGEL FROM BLACK CUMIN OIL (*Nigella sativa* L.) ON THE BACK OF THE NEW ZEALAND RABBIT (*Oryctolagus cuniculus*) THAT IS EXPOSED BY UV A RAYS, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

UV A exposure can trigger the formation of free radicals which causes skin aging. The effect of free radicals can be prevented with antioxidant. Black cumin oil (*Nigella sativa* L.) compounds contained that has antioxidant activity. Emugel formulations was made to facilitate the application. The research was conducted to determine activity of emugel from black cumin oil as anti aging in vivo using rabbits that UV A rays exposed.

Black cumin oil (*Nigella sativa* L.) was characterized and identified. Black cumin oil was formulated into emugel with concentrations 10,15, dan 20%, than tasted for physical quality and stability. Anti aging activity tests on 5 rabbits that had their back shaved and induced UV A for 2 weeks, then they were given treatment for 28 days. Percentage of collagen, elasticity, and moisture were observed using skin analyzer.

The results showed that emugel from black cumin has good physical quality and stability. The primary irritation test showed emugel was very slightly irritating. Anti aging activity test showed emugel from black cumin oil with concentration of 20% gave great anti aging effect.

Keywords : anti aging activity; black cumin oil; emugel; skin analyzer