

ABSTRAK

RIYA ARIYANI, 2023, FORMULASI SEDIAAN KAPSUL EKSTRAK ETANOL DAUN BATANG ADAS (*Foeniculum vulgare* Mill.) SEBAGAI LAKTAGOGUM PADA INDUK TIKUS MASA LAKTASI, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dibimbing oleh apt. Siti Aisiyah, S. Farm., M. Sc. dan apt. Santi Dwi Astuti, S. Farm., M. Sc.

Tanaman adas mengandung senyawa yang berfungsi sebagai laktagogum. Ekstrak dibuat sediaan kapsul untuk meningkatkan penerimaan pasien karena bau dan rasa ekstrak dapat tertutupi. Tujuan penelitian untuk mengetahui formula kapsul yang memiliki mutu fisik terbaik dan mengetahui aktivitas laktagogumnya berdasarkan parameter peningkatan berat badan (BB) anak dan histologi kelenjar *mammae*.

Ekstrak etanol daun batang adas dibuat menggunakan metode maserasi dengan pelarut etanol 96%. Ekstrak diformulasikan menjadi 3 formula kapsul dengan variasi konsentrasi bahan pengikat PVP 1%, 3%, dan 5%. Kapsul diuji mutu fisik meliputi uji keseragaman bobot dan waktu hancur. Uji aktivitas laktagogum menggunakan 4 kelompok perlakuan hewan uji, yaitu kelompok kontrol positif (K.I), kontrol negatif (K.II), kontrol formula terbaik (K.III), dan kontrol ekstrak (K.IV). Sediaan uji diberikan secara oral selama 14 hari. Aktivitas laktagogum dilihat dari parameter peningkatan berat badan anak dan histologi kelenjar *mammae*. Data yang diperoleh dianalisis menggunakan uji *Shapiro-Wilk*, *One-Way ANOVA*, dan *Post Hoc Tukey*.

Hasil penelitian menunjukkan PVP memiliki pengaruh terhadap mutu fisik kapsul pada pengujian waktu hancur. Konsentrasi PVP 1% adalah formula dengan mutu fisik terbaik karena waktu hancurnya paling cepat. Pengujian aktivitas laktagogum pada K.II, K.III, dan K.IV memiliki aktivitas laktagogum tetapi tidak sebaik K.I dilihat dari semua parameter.

Kata kunci : laktagogum, adas, kapsul, berat badan, kelenjar *mammae*.

ABSTRACT

RIYA ARIYANI, 2022, CAPSULES FORMULATION OF ETHANOLIC EXTRACT OF FENNEL LEAF AND STEM (*Foeniculum vulgare* Mill.) AS LACTAGOGUM IN MOTHER RATS LACTATION PERIOD, THESIS, FACULTY OF PHARMACY, SETIA BUDI SURAKARTA UNIVERSITY. Guided by apt. Siti Aisyiah, S. Farm., M, Sc. and apt. Santi Dwi Astuti, S. Farm., M. Sc.

Fennel plants contain compounds that function as lactagogum. The extract is made into capsules to increase patient acceptance because the smell and taste of the extract can be masked. The aim of the research was to determine the capsule formula that had the best physical quality and determine its lactagogum activity based on the parameters of children's weight gain (BB) and mammary gland histology.

Ethanol extract of fennel stem leaves was made using the maceration method with 96% ethanol solvent. The extract was formulated into 3 capsule formulas with varying concentrations of PVP binder 1%, 3% and 5%. Capsules are tested for physical quality including tests for uniformity of weight and disintegration time. The lactagogum activity test used 4 treatment groups of test animals, namely the positive control group (K.I), negative control (K.II), best formula control (K.III), and extract control (K.IV). The test preparation was administered orally for 14 days. Lactagogum activity can be seen from the parameters of the child's weight gain and mammary gland histology. The data obtained were analyzed using the Shapiro-Wilk test, One-Way ANOVA, and Post Hoc Tukey.

The results showed that PVP had an influence on the physical quality of capsules in the disintegration time test. 1% PVP concentration is the formula with the best physical quality because the disintegration time is the fastest. Lactagogum activity testing on K.II, K.III, and K.IV had lactagogum activity but was not as good as K.I in terms of all parameters.

Key words: lactagogum, fennel, capsule, body weight, mammary glands.