

POLITEKNIK KESEHATAN TANJUNGPINANG
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**Formulasi Dan Evaluasi Pasta Gigi Tipe Gel Ekstrak Daun Jambu Biji
(*Psidium guajava* Linn) Dengan Variasi Konsentrasi CMC Na**

xviii + 52 halaman, 10 tabel, 12 gambar dan 10 lampiran

ABSTRAK

Salah satu fungsi pasta gigi adalah untuk mengatasi karies gigi. Selain fluoride yang dapat mencegah karies gigi, bahan alami seperti daun jambu biji mengandung senyawa flavonoid yang berpotensi sebagai anti plak (karies gigi) dan berkhasiat dalam menghambat pertumbuhan bakteri *Streptococcus mutans*.

Tujuan penelitian ini untuk membuat pasta gigi tipe gel ekstrak daun jambu biji (*Psidium guajava* Linn) dengan variasi konsentrasi CMC Na. CMC Na pada penelitian ini sebagai gelling agent. Selanjutnya, dilakukan pengamatan terhadap warna, bau, bentuk, homogenitas, pH sediaan, daya sebar dan uji kesukaan. Penelitian ini dilakukan bersifat eksperimental. Formulasi sediaan pasta gigi dilakukan 4 perlakuan dan 6 kali pengulangan. Hasil penelitian yang diperoleh menunjukkan bahwa pasta gigi tipe gel ekstrak daun jambu biji (*Psidium guajava* Linn) dengan variasi konsentrasi CMC Na 2%,4%,6% dan 8% memiliki peningkatan bentuk mulai dari setengah padat cenderung cair hingga setengah padat cenderung padat; berbau khas; dan memiliki warna coklat muda. Semua konsentrasi memiliki susunan yang homogen. Formulasi pasta gigi tipe gel ekstrak daun jambu biji memiliki pH 5,6 – 6,4 yang sesuai dengan SNI, Daya sebar pada sediaan menunjukkan semakin tinggi konsentrasi CMC Na maka nilai daya sebar semakin kecil, sebaliknya semakin rendah CMC Na maka nilai daya sebar semakin besar. Serta pada uji kesukaan pasta gigi tipe gel ekstrak daun jambu biji yang paling disukai pada sediaan F1 dengan konsentrasi CMC Na (2%).

Kata kunci : Formulasi, pasta gigi tipe gel, ekstrak daun jambu biji,
CMC Na.

Daftar Bacaan : 25 (1985-2020)

POLYTECHNIC OF HEALTH TANJUNGKARANG
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The Formulation and Evaluation of Toothpaste Extract Guava Leave Gel-Type (Psidium guajava Linn) With the Variation of CMC Na Concentration

xviii + 52 pages, 10 tables, 12 images and 10 attachments

ABSTRACT

One of the functions of toothpaste used is to treat dental caries. Despite the fluoride substance which can prevent dental caries, some natural ingredients such as guava leaves that contain flavonoid substance have the potential aspect as an anti-plaque (dental caries) and are efficacious in inhibiting the growth of Streptococcus mutans bacteria.

This study aims to make a toothpaste gel-type with guava leaf extract (Psidium guajava Lin) with various of CMC Na concentration. CMC Na in this study functions as the gelling agent. Then, the researcher did a deep observation on some aspects such as color, odor, shape, homogeneity, pH, spreadability and preference test. This research was conducted in the form of experimental research. The formulation of the toothpaste preparation was carried out by 4 treatments and 6 repetitions. The results shows that the toothpaste with guava leaf extract gel-type (Psidium guajava Lin) with the various of CMC Na concentrations: 2%,4%,6% and 8% increased the substance form, starting from the semi-solid to liquid, to half-solid to solid; distinctive smell; and has a light brown color. All concentrations have a homogeneous arrangement. The formulation of toothpaste with guava leaf extract gel-type has a pH of 5.6 – 6.4 which is in accordance with the SNI system. The dispersion power of the preparation shows that the higher concentration of CMC Na substance, the lower the dispersion value, on the contrary, the lower the CMC Na substance, the higher the dispersion is. In addition. the test of preference for the toothpaste with guava leaf extract gel type was the most preferred in the F1 preparation with a concentration of CMC Na (2%).

Key words : Formulation, gel-type toothpaste, guava leaf extract, CMC Na.

Reading List : 25 (1985-2020)