

Abstrak

FORMULASI SEDIAAN TABLET HISAP DAUN SAGA (*Abrus precatorius*) DENGAN VARIASI HIDROKSIPROPIL METILSELULOSA SEBAGAI BAHAN PENGIKAT

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Latar Belakang: Daun saga memiliki aktivitas antibakteri terhadap *S. aureus*, sehingga ekstrak daun saga berpotensi untuk diformulasikan sebagai tablet hisap untuk terapi sariawan. Bahan pengikat berpengaruh terhadap sifat fisik tablet hisap, sehingga diperlukan konsentrasi yang sesuai. Penelitian ini bertujuan untuk mengetahui konsentrasi terpilih bahan pengikat HPMC dalam formulasi tablet hisap daun saga.

Metodologi: Daun saga diekstraksi menggunakan metode maserasi dengan pelarut etanol 80%. Tablet daun saga dibuat menggunakan metode granulasi basah dengan variasi HPMC 2, 3, dan 4%. Evaluasi fisik granul meliputi uji organoleptik, kandungan lembab, kecepatan alir, sudut diam, dan kompresibilitas. Evaluasi fisik tablet meliputi uji organoleptik, keseragaman ukuran, keseragaman bobot, kekerasan, kerapuhan, dan waktu hancur tablet. Hasil evaluasi granul dan tablet dianalisis secara deskriptif terhadap persyaratan tablet hisap yang berlaku.

Hasil Penelitian: Semakin tinggi konsentrasi HPMC, maka semakin tinggi juga kekerasan tablet yang akan berpengaruh terhadap waktu hancur tablet hisap. Formula 1 tidak memenuhi persyaratan kekerasan tablet; formula 3 tidak memenuhi persyaratan waktu hancur tablet; dan formula 2 memenuhi semua persyaratan sifat fisik tablet hisap.

Kesimpulan: Formula 2 dengan konsentrasi HPMC sebanyak 3% merupakan formula terpilih karena memenuhi semua persyaratan evaluasi fisik tablet hisap.

Kata kunci: *Abrus precatorius*; Granulasi basah; HPMC; Sariawan; Tablet hisap

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Abstract

FORMULATION OF SAGA LEAF (*Abrus precatorius*) LOZENGE WITH VARIATION OF HYDROXYPROPYL METHYL CELLULOSE AS BINDER

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Background: Saga leaves have antibacterial activity against *S.aureus*, suggesting that saga leaf extract has the potential to be formulated as lozenges for mouth sore therapy. Binder in lozenges formulation can influence physical properties of lozenges, thus requiring an appropriate concentration. This study aims to determine the optimal concentration of HPMC as binder in the formulation of saga leaf lozenges.

Methodology: Saga leaves were extracted using the remaceration method with 80% ethanol solvent. Lozenges were made using wet granulation method with HPMC variations of 2, 3, and 4%. Granules physical evaluation including organoleptic, moisture content, flow rate, angle of repose, and compressibility. Lozenges physical evaluation includes organoleptic, size uniformity, weight uniformity, hardness, friability, and disintegration time. The results of the evaluation of granules and tablets were analyzed descriptively according to the requirements.

Result: Higher HPMC concentration leads to increased tablet hardness, which can affect tablet disintegration time. Formula 1 does not meet tablet hardness requirements; formula 3 does not meet tablet disintegration time requirements; and formula 2 fulfills all the requirements for the physical properties of the lozenges.

Conclusion: Formula 2 which contains 3% HPMC is the optimal formula, as it successfully fulfills all the physical evaluation for the lozenges.

Keywords: *Abrus precatorius*; HPMC; Lozenges; Mouth sores; Wet granulation

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