INTISARI

SETIAWAN R, 2014, FORMULASI SEDIAAN TABLET SALBUTAMOL DENGAN VARIASI KONSENTRASI NA-CMC DAN EXPLOTAB® DENGAN METODE GRANULASI BASAH, KARYA TULIS ILMIAH, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Salbutamol adalah salah satu dari banyak obat yang mempunyai manfaat sebagai pengobatan asma bronkial. Salbutamol pada penelitian ini dibuat menjadi sediaan tablet. Diharapkan mampu membuat tablet salbutamol dengan bahan pengikat Na-CMC dan bahan penghancur Explotab® yang memenuhi mutu fisik sesuai persyaratan, serta mengetahui konsentrasi Na-CMC dan Explotab® yang memberikan mutu fisik tablet salbutamol yang paling baik.

Sediaan tablet salbutamol dibuat dengan menggunakan metode granulasi basah. Granulasi dibuat dengan tiga formulsi, formula I Na-CMC 3% dan Explotab® 5%, formula II Na-CMC 4% dan Explotab® 4%, serta formula III Na-CMC 5% dan Explotab® 3%. Granul kering sebelum dikempa menjadi tablet diuji susut pengeringan dan waktu alir, sedangkan granul yang sudah dikempa menjadi tablet diuji mutu fisik tablet yang meliputi: uji keseragaman bobot, kekerasan, kerapuhan, dan waktu hancur. Hasil penelitian kemudian dibandingkan dengan persyaratan yang ditentukan Farmakope Indonesia edisi III dan pustaka lainnya. Data dianalisis secara statistik anova satu arah dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan salbutamol dapat dibuat menjadi sediaan tablet. Sediaan tablet salbutamol dengan konsentrasi Na-CMC 3% dan Explotab® 5%, Na-CMC 4% dan Explotab® 4%, serta Na-CMC 5% dan Explotab® 3% memenuhi syarat uji mutu fisik tablet. Sediaan tablet dengan konsentrasi Na-CMC 3% dan Explotab® 5% adalah formula yang paling baik.

Kata kunci: Tablet, Salbutamol, Na-CMC, Explotab®, Granulasi Basah

ABSTRACT

SETIAWAN R, 2014, THE FORMULATION OF SALBUTAMOL TABLET PREPARATION USING NA-CMC CONCENTRATION VARIATIONS AND EXPLOTAB® WITH WET GRANULATION METHOD, SCIENTIFIC WORK, PHARMACY FACULTY, SETIA BUDI UNIVERSITY, SURAKARTA.

Salbutamol is one of the many drugs that have benefit for the treatment of bronchial asthma. Salbutamol in this study were made into a tablet dosage. Expected to make a tablet of salbutamol with Na-CMC binder and material crusher Explotab ® who meet physical quality according persyarataan, as well as knowing the concentration of Na-CMC and Explotab ® that provides physical quality of salbutamol tablets most good.

The salbutamol table was prepared using wet granulation method. Granulation was made in three formulations: formula I (Na-CMC 3% and Explotab® 5%), formula II (Na-CMC 4% and Explotab® 4%), and formula III (Na-CMC 5% and Explotab® 3%. Dry granule was examined first for drying shrinkage and flow time before it was pressed into tablet, while the granule pressed into tablet was tested for its physical quality including: weigh uniformity, stringency, brittleness, and destruction time. The result of research was then compared with the conditions specified by the third edition of Farmakope Indonesia and other literatures. The data was analyzed statistically with a one-way anova at confidence interval of 95%.

The result of research showed that salbutamol could be made table preparation. Sabultamol tablet preparation with concentrations of Na-CMC 3% and Explotab ® 5%, Na-CMC 4% and Explotab® 4%, and Na-CMC 5% and Explotab® 3% met the conditions of physical quality test for tablet. The tablet preparation with Na-CMC 3% and Explotab ® 5% concentration was the best formula.

Keywords: Tablet, Salbutamol, Na-CMC, Explotab®, Wet Granulation