Perbandingan pelepasan propranolol hidroklorida dari matriks kitosan, etil selulosa (EC) dan hidroksi propil metil selulosa (HPMC)

Abstrak

Chitosan is a polycatonic biopolymer that can form gel in acidic environment so that can be used as a hydrophilic matrix in controlled release drug delivery system. In this research, propranolol hydrochloride controlled release granule was made in chitosan matrix. Granules were made by wet granulation method with variety of
matrices, i.e. chitosan, hydroxypropyl methylcellulose (HPMC) and ethyl cellulose (EC). HPMC and EC were used as a comparing matrix. The release rates of propranolol HCl from matrix were determined by using dissolution apparatus type I with 50 rpm stirring rotation in acidic media of pH 1,2 and base media of pH 7,5 for 8 hours. Sample was taken at certain time and the samples were analyzed by spectrophotometer.The result showed that the release of propranolol hydrochloride from chitosan matrix was the slowest compared to the other matrices.