**ABSTRACT**

Floating tablets using different mixture of cellulose and natural gum were prepared in order to obtain new formulation containing Montelukast sodium for management of chronic asthma. Seven different formulations of floating tablets of Montelukast sodium were prepared, which contain polymers such as Hydroxy propyl methyl cellulose (K4M, K15M), xanthan gum and effervescent agent sodium bicarbonate along with drug and other excipients in various combinations. Tablets were prepared by direct compression method. The formulated tablets were subjected to thickness, hardness, weight variation, floating capacity, floating lag time, friability, and drug content. Further, the tablets were evaluated for in-vitro release characteristics for twenty four hours. All the formulations showed the satisfactory result in terms of thickness, hardness, weight variation, floating capacity, floating lag time, friability, and drug content. Drug release from the tablets was dependant on the ratio and type of the polymer used in the formulation. Swelling studies indicated significant water uptake and contributed in drug release and gastro retention. The higher viscosity polymer had been seen to inhibit the release of montelukast sodium from the FDDS. From among all the developed formulations, formulation F3 prolonged the drug release for longer period of time of 24 h and it showed a drug release of 94.09 ± 0.20 %. So, it was selected as the best formulation. Best formulation was checked for stability at 30 ± 2 °C / 65 ± 5 % RH and at 40 ± 2 °C / 75 ± 5 % RH, which showed no significant change for 2 months.

**Keywords**: Montelukast sodium, Floating tablets, Xanthan gum, Hydroxyl propyl methyl cellulose K4M and K15M.