International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.11 No.11, pp 128-138, 2018

Formulation development and comparative evaluation of multiple and single unit tablets of omeprazole magnesium

Geetha Rekulapally[1]*, Mohd Abdul Hadi[2], J Devilal[3], B Durga Prasad[4], D Sherisha Bhavani[5], K Sumalatha[6]

[1,2]Department of Pharmaceutics, Bhaskar Pharmacy College (JB Group of Educational Institutions), Yenkapally (V), Moinabad (M), R.R.District, Hyderabad-500075, Telangana, India.
[3,4,5]Department of Pharmaceutical Chemistry, Bhaskar Pharmacy College (JB Group of Educational Institutions), Yenkapally (V), Moinabad (M), R.R.District, Hyderabad-500075, Telangana, India.
[6]Department of Pharmacognosy, Bhaskar Pharmacy College (JB Group of Educational Institutions), Yenkapally (V), Moinabad (M), R.R.District, Hyderabad-500075, Telangana, India.

Abstract : The aim of the present study was to develop multiple unit particulate system and single unit tablets of omeprazole magnesium as a delayed release dosage form and study the in-vitro release pattern of test product by comparing with the marketed reference product. The work was carried out to delay the release of omeprazole magnesium by using enteric polymer methacrylic acid copolymer type-C. The optimized formula of omeprazole magnesium delayed release tablets were prepared using wet granulation technique for single unit tablets and pellet technology for multiple unit particulate system. The multiple unit pellets and single unit tablets were found to be satisfactory with respect to physical as well as chemical characteristics. The dissolution profiles of these were compared with that of the reference product - Prilosec® and the comparisons of the drug release profiles were found to be satisfactory. Single unit tablet process would be an effective, low cost and simple alternative approach compared with the use of more expensive process like fluidization process and adjuvant in the formulation of oral dosage tablets.

Key-words : Omeprazole magnesium; Delayed release pellets and tablets, Enteric polymer; Fluidization process.

Geetha Rekulapally *et al* /International Journal of ChemTech Research**,** 2018,11(11): 128-138.

DOI= http://dx.doi.org/10.20902/IJCTR.2018.111113

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