ABSTRACT

Purpose: The aim of this study was to develop, formulate and conduct *in vitro* evaluation studies of enteric microspheres of Rabeprazole Sodium, using Eudragit S100 and Eudragit L100 polymers in different ratios as release retardant material. Microspheres were prepared by solvent evaporation method using methanol / liquid paraffin system. The prepared microspheres were characterized for their particle size, drug loading, angle of repose, as well as by Fourier Transform Infrared Spectroscopy and Scanning Electron Microscopy. The *in vitro* release studies were performed in pH 1.2 (0.1 N HCl) and in 7.2 pH, phosphate buffer. The prepared microspheres were white, free flowing and spherical in shape. The drug loaded microspheres showed 83.08 - 94.29 % of entrapment and release extended up to 12 h. The IR spectra showed stable character of Rabeprazole Sodium in mixture of polymers and revealed the absence of drug polymer interactions. Scanning electron microscopy study revealed that the microspheres have smooth surface and spherical in shape. The best-fit release kinetic was achieved with zero order. The release of Rabeprazole Sodium was influenced by the drug to polymer ratio, amount of Eudragit S100. The release was found to be erosion controlled.

KEYWORDS: Rabeprazole Sodium; Eudragit S100; Eudragit L100; Enteric microspheres; Controlled release.