**ABSTRACT**

The aim of this study was to develop, formulate and evaluate controlled release microspheres of Lansoprazole, 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 (w/o). The prepared microspheres were characterized for their particle size, drug loading, FT-IR andScanning Electron Microscopy. The in vitro release studies were performed in pH 1.2 and in 7.2 pH phosphate buffer. The prepared microspheres were white, free flowing and spherical in shape. The IR spectra showed stable character of Lansoprazole in mixture of polymers and revealed the absence of drug polymer interactions. The drug loaded microspheres showed 82.83 – 95.49 % of entrapment and release extended up to 12 h. Scanning electron microscopy study revealed that the microspheres have rough surface and spherical in shape. The best-fit release kinetic was achieved with zero order. The release of Lansoprazole was influenced by the drug to polymer ratio, amount of Eudragit S100 and Eudragit L100 combination. The release was found to be erosion controlled.

**KEYWORDS:** Lansoprazole; Eudragit S100; Eudragit L100; Controlled release microspheres