

ABSTRACT

Purpose: The aim of this study was to formulate and evaluate microspheres of Salbutamol Sulphate, using Eudragit S100 and Eudragit L100 polymers in different ratios as release retardant material. Microspheres were prepared by solvent evaporation method using ethanol/liquid paraffin system. The prepared microspheres were characterized for the particle size, drug loading, angle of repose, Fourier transform infrared spectroscopy, Differential scanning calorimetry and Scanning electron microscopy. The prepared microspheres were white, free flowing and spherical in shape. The drug loaded microspheres showed 84.21-94.62 % of drug entrapment and release extended up to 12 h. The FTIR spectra and DSC confirmed absence of drug polymer interactions. Scanning electron microscopy study revealed that the microspheres have rough surface and spherical in shape. The *in vitro* release studies showed prolonged release of the drug from the microspheres and the best fit with the highest correlation coefficient was observed in zero order plot than Higuchi and first order and the stability study confirmed that the formulation prepared were stable.

Keywords: Salbutamol Sulphate, Eudragit S100, Eudragit L100, Microspheres, Solvent evaporation technique.