ABSTRACT

Esomeprazole is used in the treatment of gastrointestinal reflux disease. It has a short half life and low oral bioavailability of 50%. Therefore, the purpose of this research was to develop unidirectional bucco-adhesive films of Esomeprazole by solvent casting technique. HPMC 50cps and Eudragit RL-100 were used as polymers in different proportions. Glycerol was used as plasticizer and Tween-80 was used as permeation enhancer. The physicochemical compatibility of the drug and the polymers was studied by FT-IR spectroscopy. The results suggested no physicochemical incompatibility between the drug and the polymers. By evaluation of formulated patches we can find best formulation. Stability studies of best formulations was carried out at 30 ±2 ºC (65% RH) and 40 ±2 ºC (75% RH) as per ICH guidelines. The stability studies showed that there was no significant change found in physico-chemical properties, *in-vitro* release and *ex-vivo* diffusion studies.

KEYWORDS: Esomeprazole, Buccal films, Buccal Drug Delivery System, Stability studies.