

ABSTRACT

Sibutramine Hydrochloride is used in the treatment of obesity. It has a short half life and low oral bioavailability. Therefore, the purpose of this research was to develop transdermal film of Sibutramine hydrochloride by solvent casting method. HPMC K4M, HPMC K15M, Eudragit RS100, Eudragit RL100 were used as polymers in different proportions. Propylene glycol (30% w/w) was used as plasticizer and SPAN20 (20% w/w) was used as permeation enhancer in different concentrations. The physicochemical compatibility of the drug and the polymers was studied by FTIR spectroscopy. The results suggested no physicochemical incompatibility between the drug and the polymers. The prepared formulations were subjected to *in vitro* diffusion studies. The best formulations were selected and Stability studies were carried out at two different temperatures as per ICH guidelines. The stability studies showed that there was no significant change found in physico-chemical properties and *in vitro* diffusion studies.

KEYWORDS: Sibutramine Hydrochloride, Transdermal films, Eudragit, HPMC.