

عنوان مقاله:

Development and in vitro evaluation of fast-dissolving oral films of ondansetron hydrochloride

محل انتشار:

فصلنامه تحقیقات جاری در داروسازی، دوره 1، شماره 1 (سال: 1394)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Shohreh Alipour - *Pharmacy Department, International Branch, Shiraz University of Medical Sciences, Shiraz, Iran*

Sahar Akbari - *Pharmacy Department, International Branch, Shiraz University of Medical Sciences, Shiraz, Iran*

Fatemeh Ahmadi - *Department of Pharmaceutics, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran*

خلاصه مقاله:

Ondansetron hydrochloride, a selective 5-HT₃ receptor blocker, is an effective antiemetic drug with oral bioavailability of 60% and half-life of 4-5hours. The present study was carried out to prepare fast dissolving films of ondansetron hydrochloride to increase patient compliance and improve efficacy of this drug. Films were prepared by solvent casting method, using poly vinyl alcohol, poly vinyl pyrrolidone and konjac glucomannan as film formers and PEG400 as plasticizer. Natural and synthetic sweeteners were used for masking bitterness of the drug. Satisfactory results were obtained from evaluation of physical characteristics of fast dissolving films of ondansetron hydrochloride including: thickness (0.37-0.39 mm), surface pH (6.77), folding endurance (up to 300 times) and tensile strength (35.75-50.93 g/cm²). Films were also subjected to an in vitro dissolution and release studies. In vitro drug release studies indicated 93-95% release in 5 min. Fast dissolving films of ondansetron could be a potential alternative for the currently marketed oral formulation, parenteral form and suppository with better patient compliance and higher bioavailability for the rapid control of emesis.

کلمات کلیدی:

Fast dissolving film, Konjac glucomannan, Ondansetron, Poly vinyl alcohol, Solvent casting

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/450761>

