

4th International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems

March 24-26, 2014 Hilton San Antonio Airport, San Antonio, USA

Formulation and evaluation of esomeprazole buccal patch

Harsh Shah

Shankersinh Vaghela Bapu Institute of Pharmacy, India

Esomeprazole is a class of drug called proton pump inhibitors used in treatment of gastro esophagus reflux disease. Buccoadhesive buccal delivery systems for esomeprazole in the form of unidirectional buccal patches were developed and characterized for improving bioavailability. The patches were formulated by solvent casting method using different bioadhesive polymers like HPMC 50cps and Eudragit RL-100 by using plasticizers glycerol and penetration enhancer tween-80. 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. Unidirectional release was achieved by preparing composite patches with backing membrane. The patches were characterized on the basis of their physical characteristics like weight uniformity, thickness, swelling studies, folding endurance, surface pH, bioadhesive performance, *in vitro* drug release and *ex vivo* drug diffusion. By evaluation of formulated patches we can find best formulation on basis of bioadhesive studies, *in vitro* drug release, *ex vivo* drug diffusion and folding endurance. Stability study of best formulations was carried out at different temperature as per ICH guidelines.

Biography

Harsh Shah has completed his Post graduation in Pharmacy at the age of 23 years from Rajiv Gandhi University of Health Care Science and is doing Ph.D. from Gujarat Technological University. He is working as an Asst. Professor in Department of Pharmaceutics at Shankersinh Vaghela Bapu Institute of Pharmacy, Gujarat, India.

aharsh.shah@gmail.com