Formulation and Evaluation of Osmotic Pressure Bilayer Tablets of Quetiapine Fumarate

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Abstract:

The present research work was done by using different proportions of osmogens, which are helpful for the release of drug from the formulation and a coating layer which acts as a semi permeable membrane. Fructose, sucrose, mannitol, lactose and citric acid was used as osmogens and cellulose acetate, acetone, polyethylene glycol 400 (PEG 400) and potassium chloride are used for the preparation of coating material. Quetiapine Fumarate bilayer osmotic pressure tablets were prepared by direct compression method using above mentioned osmogens in different proportions. In this bi-layered osmotic tablets, one layer releases immediately and another layer releases in controlled manner. Pre-formulation studies and post compression studies were done by weight variation, thickness, hardness, friability and dissolutions studies. From the above studies F7 formulation was optimized and in curve fitting analysis it follows zero order release kinetics.

Keywords: Osmogens, direct compression, curve fitting, drug release kinetics