

Improved Wetting for Improved Solubility and Dissolution of Candesartan Cilexetil

Authors : Shilpa Bhilegaonkar, Ram Gaud

Abstract : Candesartan cilexetil is a poorly soluble antihypertensive agent with solubility limited bioavailability (15%). To initiate process of solubilisation, it is very much necessary to displace the air at the surface and wet the drug surface with a solvent, with which drug is compatible. Present research adopts the same principle to improve solubility and dissolution of candesartan cilexetil. Solvents used here are surfactant and modified surfactant in different drug: solvent (1:1-1:9) ratio's for preparation of adsorbates. Adsorbates were then converted into free flowing powders as liquisolid compacts and compressed to form tablets. Liquisolid compacts were evaluated for improvement in saturation solubility and dissolution of candesartan cilexetil. All systems were evaluated for improvement in saturation solubility and dissolution in different medias such as water, 0.1 N HCl, Phosphate buffer pH 6.8 and media given by office of generic drugs along with other physicochemical testing. All systems exhibited a promising advantage in terms of solubility and dissolution without affecting the drug structure as confirmed by IR and XRD. No considerable advantage was seen of increasing solvent ratio with drug.

Keywords : candesartan cilexetil, improved dissolution, solubility, liquisolid

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