ABSTRACT

Obesity the rapidly growing epidemic is a cause of concern all over the world. Especially the prevalence of psychological depression is commonly seen among obese individuals. The vast clinical research has been carried out on Obesity and co-morbid depression. The results have delineated that the Obese patients with depression are usually accompanied by binge eating disorder. Most researchers also have noted that Obese patients with psychological distress seem to have no interest in taking the prescribed medication. In addition the currently medication available for the management of Obesity and its comorbid disorder are available only as tablets or capsule dosage form.

Therefore, in the present research project, an attempt has been made with the available medication for treating Obesity and depression to prepare and optimize attractive and palatable oral chewable dosage forms of both single and combination drugs. So that, the treatment adherence in the Obese binge eaters suffering from depression can be increased and more weight can be reduced. And further, the reduced weight can also be maintained for longer period by controlling the binge eating pattern. With this objective this research project was aimed at developing the novel chewable dosage forms like Orodispersible mini-tablets, Minitabs-in-tablet and Press coated tablets taking three drugs Orlistat, Venlafaxine Hcl. and Bupropion Hcl. either single or in the combination.

Initially, the preformulation study including the physico-chemical characterization of the active and inactive substances was carried out. The results were compared with the reference standard, and the results were found to be within the reference standard limits. HPLC methods of the single and combination of drugs were developed following the international guidelines. Then, according to the plan of work three different chewable solid dosage form formulations are developed, evaluated and optimized. In conclusion, the three optimized chewable formulations evaluated results were found to be within the standard limits. Finally the taste evaluations of all the three optimized formulation done by volunteers on a scale of five were found to be satisfactory. Hence there is a wide scope for the novel chewable dosage form formulations developed and optimized in this research project.