ABSTRACT

The pediatric and geriatric patients face problem in consuming the traditional tablets. Hence to resolve this problem the fast dissolved or break up in the mouth tablets to be formulated. The aim of the present study was to formulate and developed the mouth dissolving tablets of Tolperisone hydrochloride and Celecoxib. Perfromulation studied was conducted for Tolperisone and Celecoxib to assess its purity. This study was also applicable in screening the physicochemical characteristics of Tolperisone and Celecoxib. Powder blend prepared were investigated for diverse rheological properties like bulk density, tapped density, Hausner’s ratio, angle of repose by using standard procedures, and exhibited satisfactory results. Tablets of Tolperisone and Celecoxib were formulated by direct compression method using superdisintegrants agents namely Crospovidone and Sodium starch glycolate in various ratios. The formulated tablets were assessed for their thickness, hardness, weight variation, friability, assay, wetting time, water absorption ratio, in-vitro disintegration time and dissolution study. All the formulations of prepared tablets were subjected to in-vitro release studies. The outcomes of these investigations were found to be satisfactorily. Among all the formulations T7 and C7 revealed better results. The formulations were optimized by characterizing the factors participating in altering the result. The 3^2 factorial designs were applied for the formulated tablets. The formulation TC7 and CC7 exhibited better results as compared to other formulations. Further these formulations can be select for in vivo study.

Keywords: Tolperisone hydrochloride, Celecoxib, Crospovidone, Sodium starch glycolate, Mouth dissolving tablets