

FORMULATION & EVALUATION OF SUSTAINED RELEASE MATRIX TABLET OF CARBAMAZEPINE

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ABSTRACT

Monolithic matrix tablets of carbamazepine were formulated as sustained release tablet employing HPMC polymer and the sustained release behavior of the fabricated tablet was investigated. Sustained matrix tablet contain 200 mg of carbamazepine were developed using different grade of HPMC alone or in combination. Tablets were prepared by direct compression. Formulation was optimized on the basis of acceptable tablet properties and in-vitro drug release. The resulting formulation produced robust tablets with optimum hardness, consistence weight uniformity and low friability. The result of dissolution study indicated that formulation C07 the most successful of the study, exhibited drug release pattern very close to USP data for carbamazepine extended release tablet. A decrease in release kinetic of drug was observed on increasing polymer ratio.

Keywords: Carbamazepine , sustained release matrix tablet, epilepsy and HPMC.