Dutasteride is a potential and selective inhibitor of both types of 5α-reductase enzyme which converts testosterone to dihydrotestosterone. Therefore, the treatment of Benign Prostatic Hyperplasia (BPH) is performed by inhibiting 5α-reductase. Dutasteride indications are BPH and men’s alopecia and marketed as a capsule dosage form. In many aspects, nano tablets have significant advantages to capsules, for instance in the specificity, dosage release, efficacy and side effects. Moreover, nano drug delivery method is effective, controlled and targeted. The purpose of this study is to prepare new tablet formulation containing dutasteride nanoparticles to improve the Intestinal absorption. This system was prepared by Eudragit RP40 and dutasteride dissolved into ethanol, tween 80, benzalkonium chloride, and distilled water. The mean particle size and zeta potential were determined using Photon Correlation Spectroscopy (PCS) using a Malvern Zeta sizer. The dutasteride-loaded Eudragit nanoparticles with a mean particle size nearly 155 nm and PdI 0.136 were prepared by simple and fast method. Then the nano dutasteride formulated as a tablet dosage form. The drug release and other physico-chemical control tests were assessed. The obtained results revealed that nano tablet dosage form is more suitable as compared to capsule and tablet ones.

Recent Publications:


Biography
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Notes: