Estimation of Cortisone Acetate in Pharmaceutical Anti-inflammatory Drugs by HPLC-UV Technique

Abstract

The HPLC-UV System was used to assay of Cortisone acetate in Oral Tablets So; compare the bioavailability of two types of Cortisone acetate; commercial formulations and Cortisone acetate analar grade as a test formulation. Cortisone acetate concentrations were analyzed by HPLC-UV System at (λ=254 nm). The separation was achieved by using the Ion Pac Ercus C18 RP-Column; 5µm, 4.6×250 mm. The mobile phase consisted of water /acetonitrile (55:45). The study of bioequivalence between the two Cortisone acetate formulations were assessed by calculating peaks height. The standard Cortisone acetate eluted at a flow rate of 1.0 ml/min. The method was found to belinear in the range (0.5 to 2.5) µg/ml (n = 5) with R2 ≥ 0.9991, also, the recoveries were range within 99-100%. The detection limit of quantification (LLOQ) was 0.07909µg/ml and lower limit of detection (LLOD) 0.02610 µg/ml. showing average intra assay and inter-assay coefficients of ± RSD % about 0.522 %. The results of recoveries, ± RSD, and statistical parameters obtained in this study. The accurate, precise and sensitive refers to validation method for determination of Cortisone acetate in anti-inflammatory Pharmaceutical drugs