doi:10.4172/0975-0851.1000058

TITLE

IN-VITRO RELEASE AND PHARMACOKINETICS OF ANTI-TUBERCLE DRUG ETHIONAMIDE IN HEALTHY MALE SUBJECTS

Mahmood Ahmad*
Asad Ullah Madni
Muhammad Usman

Department of Pharmacy, the Islamia University of Bahawalpur, Pakistan-63100

The aim of study was to assess the pharmacokinetics of ethionamide in the local population of healthy human subjects. Serum samples were taken from each of the selected subject at different time intervals. These samples were analyzed by using High Performance Liquid Chromatography consisting of reverse phase C18 column, UV detector set at 291nm. The mobile phase was consisted of 0.02 M disodium hydrogen phosphate and acetonitrile (75:25) and delivered at a rate of 1.5ml/min. The value of C_{max} was found to be 1.941 ± 1.487 µg/ml (mean ± SEM) and T_{max} was 1.75 ± 1.487 hours (mean ± SEM). The area under the curve (AUC) was 8.745 ± 0.536 (mean ± SEM). The elimination half life ($t_{1/2}$) was found out as 1.995 ± 1.157 hours (mean ± SEM). The total body clearance (Cl) was determined as 32.591 ± 0.298 ml/hr/kg (mean ± SEM). It was concluded that ethionamide (Ethomid® Schazoo-Lahore, Pakistan) found in consistent with the values reported in the available literature. The study will be beneficial and valuable in designing dosage regimen for the patients on ethionamide therapy and can be utilized as guideline in accessing the bioavailability and pharmacokinetics parameters in clinical situations.

Key Words: Ethionamide (ETA), Pharmacokinetics, Serum, High performance liquid Chromatography (HPLC).