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PHARMACOKINETIC, SOLUBILITY AND DISSOLUTION PROFILE OF LEPROTIC DRUGS.

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Abstract

Pharmacokinetic data And Solubility Profile Of drugs are the basic requirement of any researcher, for selecting an appropriate drug for any kind of formulation development. To get such data of all drugs of any category at one place is very difficult task; we by our review article have tried to give all such data of Leprotic drugs at one place.

4-[(4-

Keywords: - Solubility profile, pharmacokinetic parameters. Leprosy.

Introduction

Classification: - [1]

1. Sulphones: - Dapsone, Sulfoxone sodium.

2. Non-Sulphones:

Rifampin, Clofazimine, Thiacetazone, Sulfadoxine, Asprin, Chloroquine, Thalidomide, Antimonials, Corticosteroids.

name

Dapsone [2]

Systematic (IUPAC) aminobenzene)sulfonyl]aniline[2]

Chemical data

Formula: - $C_{12}H_{12}N_2O_2S$ Mol. Mass: - 248.302 gmol⁻¹ Melting point: - 175 - 176° C [3]

Description: - Dapsone is a white or slightly yellowish-

white, odorless, crystalline powder with a slightly

Bitter taste. [3]

Solubility profile: - Very slightly soluble in water, freely soluble in alcohol, soluble in acetone and in dilute mineral

acid. [USP][4]

Solubility profile: -Freely soluble in ethanol (95 percent) and in acetone. Very slightly soluble in water. It is soluble in dilute mineral acid. **[IP][5]**

Pharmacology: -

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Mechanism of Action: - Dapsone acts against bacteria and protozoa in the same way as sulphonamides, that is by inhibiting the synthesis of dihydrofolic acid through competition with Para-amino-benzoate for the active site of dihydropteroate synthesase. The anti-inflammatory action of the drug is unrelated to its antibacterial action and is still not fully understood. [7]

Pharmaceutics: -

Pharmacokinetic data: Bioavailability: - 70 to 80%
Protein binding: - 70 to 90%

Metabolism: - Hepatic (mostly CYP2E1-mediated)

Half-life: - 20 to 30 hours Excretion: -Renal [2]

Nature: - Lipophillic. [6]

Log P: - 0.97[6]

PKa/Isoelectric Point: - 2.41[7] Dissolution:- Dapsone Tablet

Medium: - Dilute hydrochloric acid(2 in 100),1000ml

Apparatus: - 1[USP] Rpm: - 100 rpm Time: - 60 minutes.[8] Clofazimine [9]