2.0. REVIEW OF LITERATURE

Kagawa et al (1989) studied multicentre studies in Japan of 629 patients, investigators found Terbinafine hydrochloride 1% cream is both safe and effective in the treatment of tinea infections.

Balfour et al (1992) conducted clinical trials, with Terbinafine administered either orally or topically. The mycological and overall efficacy rates of around 80-90% respectively were achieved in cutaneous dermatophyte infections.

Bergstrersser et al (1993) studied a multicentre, double blind comparative clinical studies between clotrimazole and Terbinafine showed topical Terbinafine hydrochloride to be significantly more effective than clotrimazole in the treatment of Tinea pedis.

Pankajalakshmi V.V. et al (1994) studied in-vitro susceptibility testing of dermatophytes against naftifine and Terbinafine by dilution and disk diffusion methods. Terbinafine was found to be more active with a MIC-50 and MIC 90 at 0.01 and 0.1 mg/ml respectively.

David S. Jones et al (1995) studied the TPA mechanically characterize polymeric, pharmaceutical semisolids containing bioadhesive polymers. It was concluded that TPA is a rapid, straight forward technique that may be applied to the mechanical characterization of pharmaceutical semisolids.

Donna L. French et al (1995) studied that the drug release from a matrix consisting of a physical mixture of Carbopol and a weak acid is dependent on
the influence of the physiochemical properties of the drug on gel formation in the matrix.

The solubility and ionization property of the dissolving drug influences the thickness and viscosity of the gel layer. In turn, the properties of the gel layer affect drug release rate by influencing drug diffusivity and the diffusional path length. Examination of the physiochemical properties of the drug is an important factor in elucidating the mechanism of release from carbopol gels.

Panigrahi et al (1997) developed gels with various types of gelling agents. Among the gelling agents used carbopol-940 was found to be best.

Simon GC et al (1999) developed the ultraviolet spectrophotometric and non-aqueous volumetric method for determination of Terbinafine hydrochloride from tablets & creams. It was concluded that the methods were simple, brief and accurate and can be useful for routine analysis. The linearity was 0.8-2.8 mg/ml at 224nm.

Simone GC et al (1999) developed simple rapid and reproducible RP – HPLC method for the quantification of Terbinafine hydrochloride in raw materials, tablets and creams. It was concluded that this study has the advantage of simplicity, precision, accuracy and convincing with simple reagents and sample preparation. The linearity showed 10-20 mg/ml of Terbinafine hydrochloride.
Woolfson et al (2000) studied the rheological and membrane penetration properties of novel dual drug systems for percutaneous delivery. The study concludes that the drug penetration properties will depend on rheological and mechanical properties of the formulations.

Fernandez-Torres et al (2000) found that the comparative study between the Terbinafine and azole derivatives. He revealed that the Terbinafine was found to be the most effective antifungal drug.

Jessup CJ et al (2000) studied an evaluation of the in vitro activity of Terbinafine. The results showed that the Terbinafine is a potent drug against dermatophytes and also against broad spectrum of yeast and filamentous fungi.

Loganathan V et al (2001) studied the effects of polymers and permeation enhancers of flurbiprofen from gel formulations. It was identified that carbopol 940 (0.6 – 1.2%) was found to be highly state preparation.

Saeedi M. et al (2003) developed different topical gels of glycyrrhiza glabra using different co solvents. It was found that propylene glycol was the best co-solvent for the extract and carbopol 940 as gelling agent showed the best results in final formulation.

Chrisita Ackermann et al (2004) studied the rheological behavior of the Carbopol microgels do not change appreciably in the pH range 5.0-8.0, and the gels can be used as effective dermatological base for topical applications.
Karaca N et al (2004) studied the comparative antifungal minimum inhibitory concentrations of various azole and allylamine antifungals by disk diffusion and broth dilution methods. In the study it was concluded that the potential values of the disk diffusion method as convenient alternative method for testing susceptibilities of dermatophytes.

Ozsoy et al (2004) investigated the in vitro release properties of tiaprotenic and (TA) from different topical vehicles. It was concluded that carbopol 940 gel base is a good candidate for topical delivery of tiaprotenic acid.

Gupta AK et al (2005) identified that the overall ranking of the antifungal activity of the five antifungal agents was found to be terbinafine > posaconazole > ravuconazole > itraconazole > fluconazole, for dermatophytes.

Sasutjarit R et al (2005) determined the effect of formula compositions on viscoelastic piroxicam gels using carbopol 940 a gelling agent. The gels exhibited predominantly elastic solid behavior whose magnitude depended on carbopol 940 concentrations.

Reddy MS et al (2006) prepared the minoxidil gels using carbopol, hydroxyl propyl methyl cellulose and hydroxy methyl cellulose for the treatment of alopacia. It was identified from the physical and chemical that carbopol showed the good bases for the minoxidil topical gels.
Giulia Bonacucina et al (2006) studied the Rheological, adhesive and release characterization of semisolid carbopol/tetraglycol systems. These studies showed tetraglycol / carbopol systems as a first-rate alternative to traditional water gels when low water-soluble drugs have to be added.

Gande suresh et al (2007) suggested that the in-vitro stability studies of solid lipid nanoparticles and suspensions were performed by Franz diffusion cell using a dialysis membrane.