INTRODUCTION

Normal human skin colour is dependent on haemoglobin (in both the oxygenated and reduced state), carotenoids and melanin pigment. Of these, melanin is a major determinant of difference in skin colour. Melanocytes are the cells that possess the metabolic machinery for the synthesis of melanin. In the skin, melanocytes are located in the epidermal basal layer and project their dendrites into the malpighian layer of the epidermis where they transfer melanin to the keratinocytes ***(Jimbow et al., 1999).***

The close relationship between melanocytes and keratinocytes (in the epidermomelanotic unit) is important for melanocyte survival and differentiation, mainly through keratinocyte- derived cytokines, acting on melanocytes via specific receptors ***(Gordon et al., 1989; Kondo, 1999).***

Keratinocytes secrete granulocyte monocyte colony stimulating factor (GM-CSF), an intrinsic stimulant of melanocytes in UVA –induced melanosis ***(Imokawa et al., 1998),*** endothelins, which are intrinsic mitogens for melanocytes and stimulate UVB hyperpigmentation ***(Imokawa et al., 1992),*** and basic fibroblast growth factor (bFGF) which is a natural mitogen for melanocytes ***(Halaban et al., 1988).*** Stem cell factor SCF/c-KIT pathway mediated by keratinocytes play a critical role in the control of normal human melanocyte homeostasis, increasing the number, size, and dendricity of melanocytes ***(Grichnik et al., 1998).***

Furthermore, keratinocytes synthesize Interleukin I-α (IL-Iα), Interleukin 6 (IL-6), tumour necrosis factor-α (TNF-α) and transforming growth factor - β (TGF-β), which are paracrine inhibitors of human melanocyte proliferation of melanogenesis. Therefore, it is possible to hypothesize that a functional change in the cutaneous microenvironment (i.e. impairment in keratinocyte secretory activity) may be involved in melanocyte disappearance in several hypopigmented disorder ***(Swope et al., 1991; Martinez-Esparza, 1997).***

AIM OF THE WORK

The aim of this study was to evaluate the role of keratinocyte derived cytokine TNF-α in the pathogenesis of hypopigmentation occurred in hypopigmented variant of MF as compared with two of other hypopigmented disorders namely vitiligo and hypopigmented type of T.V.