INTRODUCTION AND AIM OF THE WORK

Introduction:

Chemical face peels can genenally be classified by the depth of penetraions superficial (Stratum granulosum to full thickness epidermis), medium (papillary dermis to upper reticular dermis), and deep (mid reticular dermis) ***(Brody 1989 and Matarasso et al., 1990)***.

Chemical peeling is used in the majority of cases, for sun damaged skin and is intended to produce a controlled partial thickness injury to the skin, destroying varying amounts of epidermis and upper portions of the dermis.

A wound healing response following the injury involves :-

1. Removal of actinic keratoses and lentigines.
2. Epidermal regeneration by epidermal migration from adnexal structures.
3. Decrease in solar elastosis and replacement of new dermal connective tissue.

The overall clinical appearance of the skin is usually more homogenous with fewer rhytides and less pigmentary dyschromia ***(Alt, 1989)***.

The indications for superficial peeling are reduction of superficial keratosis, mild epidermal dyschromia and comedon formation ***(Glogau and Matarasso, 1995)***.

HISTORICAL BACKGROUND OF CHEMICAL PEELING

Although there was no recorded evidence of beautifaction treatment among prehistoric people, they probably recognized and treated aging skin with abrasives, oils and other simple drugs known at that time. The Ebers papyrus contained great deal of information on cosmetic treatments by early Egyptian physicians. This document discussed methods of removing wrinkles and moles, dying hair and eye brows, correcting squints, and other procedures for beautifying the body. Some of the medications mentioned, were mixture of alabaster, salt, extract of animal oils and other similar items. Exfoliation of the skin was effectuated by directly using poultice from mineral and plant substances on the skin. Sulphur, mustard and limestone were known to have been used ***(Baker and Gordon, 1987)***.

Indian women were reported to have mixed urine with pumice and applied it to the skin to improve their appearance, although there was little evidence of any significant value in this preparation. Yet, it is reasonably believed that similar oils, creams and abrasives now employed for cosmetic purposes were probably prescribed by the medical men of those times ***(Baker and Gordon, 1987)***.

Twentieth-century dermatologists explored the utility of chemical peeling begining with the use of phenol to treat acne

scars in 1903 ***(Mackee and Karp, 1952)***. Since then many cutaneous disorders such as rosacea, seborrheic dermatitis, lentigines, dyschromias and rhytides have proven responsive to chemabrasion ***(Collins, 1989)***.

The first documentation in the American medical literature is when ***Eller and Wolff (1941)*** employed "skin peeling and scarification in the treatment of facial blemishes and pitted scars. Interestingly Mackee and Karp claimed to have used a similar technique in 1903. American interest in this field was generated with the influx of European dermatologists in the 1920s and 1930s. The great wars may have been responsible for the abscence of further work in chemical peels through the 1940s and 1950s ***(Glogau and Matarasso, 1995)***.

It was not until 1960 that Baker and his associates, with great courage, scientifically evaluated the use of phenol on facial skin. They graduated from segmental to full-face peels, and their experience increased over several years; the other physicians introduced other keratolytic agents such as TCA and salicylic acid but the most cosmetic surgeons are using phenol as their prime peeling agent. The basic difference in technique involves whether or not tape is applied following application of the peeling agent ***(Baker et al., 1966)***.