

# Histological Changes of Microdermabrasion

by

Kee Lee Tan  
MBBS, FRACGP,  
MCPSA, FFMACCS

Lawrence L Yu  
MBBS, FRCPA,  
DipRCPath  
(Dermatopathology)  
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Microdermabrasion is used extensively in the cosmetic industry by both beauticians and doctors. It is used for numerous medical and non medical indications. Medical indications include active acne, acne scars, facial scars, hypertrophied scars and keloid scars, hyperpigmentation, melasma, antiageing, fine lines, wrinkles, stretch marks, oily skin and complimenting other procedures such as IPL, lasers and chemical peels. Non medical indications include total body toning, total body skin exfoliation, bust firming or lifting, lymphatic drainage, cellulite treatment and face "polishing" with organic crystals.

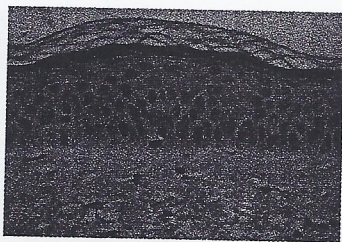
The aim of the study was to determine the histological changes from microdermabrasion using just the basic parameters of microdermabrasion which are low pressures (30-35kPa, max 35kPa) and normal size crystals. We also wanted to determine if there was any lodgement of aluminium oxide crystals onto the surface of skin and if there were any inflammatory responses to aluminium oxide.

## METHODOLOGY

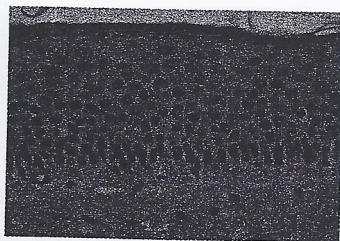
A total of 10 patients were chosen for this trial. Selection criteria for this trial were age 40 years and above. All patients were checked to exclude skin malignancy and other skin pathology. None of the patients had any systemic disease (NIDDM, CT disease). All the patients had not had any previous cosmetic medical treatment (lasers, IPL, peels) and were not on any cosmetic medical skin care treatment. Patients were then treated with the Duomedic microdermabrasion machine using aluminium oxide crystals. Each patient was given 10 treatments at weekly intervals. The treatments were performed by the same operator and the settings were always constant at 30-35kPa of pressure and used normal size crystals. Each treatment consisted of 5 passes over the entire face. There was no pretreatment of the skin and the face was washed with Cetaphil prior to each treatment. Post treatment care was with Cetaphil lotion. Three sets of preauricular biopsies were collected for

## RESULTS

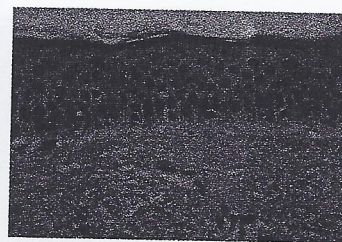
### PATIENT 1



Patient 1 BEFORE

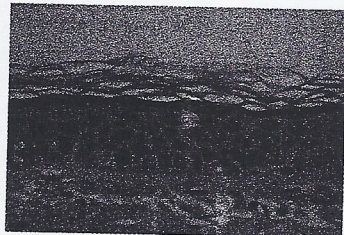


Immediately AFTER



AFTER 10 x

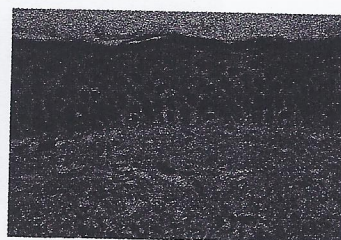
### PATIENT 2



Patient 2 BEFORE



Immediately AFTER



AFTER 10 x