



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

EARLY ONSET OF EXPRESSION OF VISIBLE SIGNS OF FACIAL SKIN AGEING IN DIFFERENT ETHNIC GROUPS

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Introduction: Various researchers have defined timelines for expression of facial skin ageing. Typically, these studies focus on a single ethnic group and female subjects aged 30 years and above.

Objective: To characterise and compare the timeline of expression of various endpoints of facial skin ageing in female subjects aged 10-80, across 5 different ethnic groups.

Materials and Methods: 1250 female subjects, aged 10-80 (250 each in five ethnic groups; Caucasian, Chinese, African, Indian and Latino, ~36 per decade), at 3 sites (2 US, 1 China) were recruited into a large, single-visit study. Facial skin quality was evaluated using a series of objective measures, including dermal elasticity (Cutometer SEM575), 3D microtopography (Dermatop) and image analysis of features in standardised, high-resolution digital images, including wrinkling, hyper-pigmented spots and microtexture.

Results: The quality of facial skin deteriorated progressively and cumulatively ($p < 0.05$) across all the endpoints measured, from age 10 onwards, through to age 80. Inter-ethnic group differences were noted. For example, the lower face of Chinese female subjects lost more elasticity ($p < 0.05$) than all other ethnic groups, Indian female subjects accumulated wrinkles at twice the rate ($p < 0.05$) than all other ethnic groups, while African female subjects accumulated significantly more pigmented spots than all other ethnic groups, from age 10 onwards.

Conclusions: These results challenge the notion that facial skin ageing endpoints accumulate from the 3rd or 4th decade onwards. Rather, we have shown that this process starts from as early as age 10 onwards, with varying degrees of severity across different ethnic groups. The need for early intervention, tailored for specific ethnic skin types is indicated.

