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### Confocal laser microscopic imaging of conspicuous facial pores in vivo: relation between the appearance and the internal structure of skin.

*Sugata K, Nishijima T, Kitahara T, Takema Y.; Skin Res Technol. 2008 May;14(2):208-12.*

#### ABSTRACT

**BACKGROUND/PURPOSE:** Conspicuous facial pores are one of the more serious esthetic defects of most concern to women.

Previous microscopic observations of the skin surface around conspicuous pores have discovered large hollows and uneven skin tone.

In this study, the observation area was extended from the skin surface to deeper skin to find the characteristic features of conspicuous pores in a wider spectrum.

**METHODS:** First, a magnified surface image of the cheek skin was obtained using a video microscope.

Second, replicas were collected from the same area.

Third, the horizontal cross-sectioned images of the epidermis and papillary dermis in different depths were non-invasively obtained using in vivo confocal laser scanning microscopy.

These images were compared with each other to find a correlation between features of the skin surface and those of deeper layers.

**RESULTS:** In cross-sectioned images of conspicuous pores, a strongly undulated epidermal-dermal junction was commonly observed around a pore's opening.

Areas with this feature correlated well to the areas with larger hollows and an uneven skin tone.

**CONCLUSION:** Our results indicate that there is a positive correlation between the incidence of the

characteristic feature at the epidermal-dermal junction and the visual appearance of a pore.