

Anthropometry of Pretarsal Fullness and Eyelids in Oriental Population

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Abstract

Background: In Chinese physiognomy, lower-lid pretarsal fullness is considered a sign of beauty. However, there are no data regarding the normal measurements of pretarsal fullness. The purpose of this study was to evaluate the average appearance of lower-lid pretarsal fullness in oriental population of specific age groups with the intention of obtaining data that surgeons could use when performing lower blepharoplasty. The effects of the orbicularis oculi muscle on pretarsal fullness are also discussed.

Methods: A total of 640 participants were included in this study. The parameters of the eyelid, including the size of lower-lid pretarsal fullness, upper-lid crease, eyebrow position and palpebral fissure, were measured. The changes in these parameters with age, the ratio of lower-lid pretarsal fullness to palpebral fissure height, and the effect of the orbicularis oculi muscle on pretarsal fullness were analyzed.

Results: Six hundred forty participants (1280 eyes) were analyzed in the study. The average age of the participants was 39.3 years (range 21–60 years). The prevalence of static and dynamic pretarsal fullness was about 20% and 70%, respectively. The prevalence was higher in subjects in the fourth and fifth decades of their lives and lowest in subjects in their sixth decade. The sizes of both static and dynamic pretarsal fullness were higher in male than female. In the younger group, the average size of static pretarsal fullness was approximately 6.1–6.5 mm, and the static pretarsal fullness ratio was approximately 0.4. The vertical dimensions of static and dynamic pretarsal fullness increased with age. The changes were significantly higher in subjects over 20 years of age.

Conclusion: This study provided data about the size and prevalence of pretarsal fullness, and allowed us to provide reference data for doctors to utilize when treating patients seeking lower-eyelid pretarsal fullness. Patients may appear younger when their new static pretarsal fullness falls within the range of 6.1–6.5 mm in the vertical dimension and when the pretarsal fullness ratio is about 0.4

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