Facial Anthropometric Analysis of the Javanese Female

Facial attractiveness is based on a combination of facial proportion, symmetry, and harmony and is immersed in cultural values. This study develops a set of facial measurements for women of pure Javanese heritage.

Methods. We examined facial measurements of 80 randomly selected women of Javanese descent aged 18 to 39 years living in Jakarta. Participants with abnormal body mass index, prior facial fracture or surgery, mild to severe allergic rhinitis, chronic nasal obstruction, orthodontic treatment, or craniofacial disorder were excluded from the study.

Digital frontal, lateral, and basal photographs (using a Nikon D70S camera and Nikkor zoom 18- to 70-mm lens, F3.5, Nikon Corp, Tokyo, Japan) were taken of all participants. The images were then analyzed using proprietary digital analysis software (Rhinobase Software, Izmir, Turkey), calibrated by including a 10-cm ruler at the facial plane.

Values measured were as follows (Figure 1):

1. Upper facial height (UFH): distance between the trichion (tr) and glabella.
2. Midfacial height (MFH): distance between the glabella and subnasal (sn).
3. Lower facial height (LFH): distance between the subnasal and menton (m).
4. Upper lip length (ULL): distance between the labium superius oris (ls) and stomion (sto).
5. Stomion-Menton distance (SM): distance from the stomion to the menton.
7. Nasal floor width (mf-mf): distance between the left and right maxillofacial (mf) points.
8. Ala nasi width (al-al): distance between the ala nasi (al).
9. Nasofrontal angle (NFR): angle between the glabella-nasion (n) line and nasion-nasal tip (t) line.
10. Nasofacial angle (NFA): angle between vertical line just touching the forehead at the glabella and the chin at pogonion (pg), intersected by a line from the dorsal plane of the nose.
12. Mentocervical angle (MC): angle between the glabella-pogonion line and the menton-cervical point line.
15. Subnasale-columella distance (sn-c): distance between the subnasale (sn) and the columella breakpoint (c).
17. Powell tip projection ratio: ratio between the nasion-subnasale and the perpendicular line that crosses it through the nasal tip.
19. Columellar show: distance of the lowest point of the columella to the alar rim.
20. Mentolabial sulcus: distance between the deepest point of the mentolabial sulcus (sl) and the line that crosses the labium inferius oris (li) and pogonion.
21. Lobule-basal ratio: ratio of the lobule nasal width (rd-lb) to the nasal base (al-al).

The data were entered into an Excel spreadsheet (Microsoft Corp, Redmond, Washington) and were analyzed by t test. This research was approved by the ethics panel of the University of Indonesia, Cipto Mangunkusumo Hospital, Jakarta, Indonesia.

Results. The facial characteristics of 80 participants were analyzed from June 2006 through August 2006 in the offices of the Faculty of Medicine Ear, Nose, and Throat Department, University of Indonesia, Rumah Sakit Cipto Mangunkusumo (Hospital), in Central and South Jakarta. A summary of the results is shown in Figure 2.

Comment. Vertical Facial Height. The length of the face and each vertical third was greater in Javanese women compared with white women. In Javanese women, the midfacial height (69.39 mm) was greater than the upper facial height (57.65 mm) and the lower facial height (67.92 mm). The midface of Javanese women was proportionally the largest facial vertical third. Choe et al found that the vertical proportions of Korean American women were not notably different from those reported in Farkas data on white women. In our study, a substantial difference existed between the vertical facial proportions in Javanese and white women. The lower facial height was proportionally smaller in Javanese women than in white women (34.87% vs 36%; P < .001).

Horizontal Facial Value. In this study, 90% of the subjects had a wider ala nasi than epicanthal distance. Sim et al arrived at the same result in their study of Chinese women, as did Choe et al in their study of Korean American women. These results differ from those of Farkas, who found that most white women had equivalent epicanthal and ala nasi widths.
Facial Aesthetic Angle. The mean measurement of the nasofrontal angle in this study was significantly greater than in white women (138.04° vs 134.3°; P < .001). By contrast, Leong and White found no significant difference in the nasofrontal angles of Chinese and white women.

Nose. The mean nose length in Javanese women was shorter than in white women (39.7 vs 44.7 mm; P < .001). By contrast, Choe et al showed that the mean nose length in Korean American women was not significantly different from that of white women.

Conclusions. From the analysis of 21 facial anthropometric parameters in 80 Javanese women, we have determined the mean data for this population. The values of these parameters should be considered when planning and evaluating the results of reconstructive and facial aesthetic procedures in these patients. The characteristics of Javanese women include the following:

1. Vertically, the facial proportion of the Javanese woman is not divided into 3 equal sections; the mean proportion of the upper facial height (mean, 57.66 mm [29.54% of total facial height]) is the lowest, and the mean midfacial height and lower facial height are relatively the same.

2. The mean epicanthal distance (30.08 mm) is wider than in white women.

3. The ala nasi width (mean, 40.41 mm) is greater than the epicanthal width.

4. The mean nose length (mean, 39.72 mm) is shorter and accounts for a lower percentage of the total facial height than in white women.

5. The width of the ala nasi is approximately equal to the nasal length.

6. Compared with white women, Javanese women have less nasal tip projection, a wider nasal base (mean, 23.38 mm), wider ala nasi, shorter columella (5.83 mm), and wider nasal lobule, which accounts for a larger percentage (56%) of the nasal base width.
7. The red upper lip is larger (mean, 14.40 mm), and there is a smaller nasolabial angle (92.81°) than in white women.

8. Javanese women have less chin projection than white women.

The parameters of the facial anthropometry analysis in this study showed substantial differences from facial anthropometric values in white women. These differences are important considerations when planning facial surgery in these patients.

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Absorbable Suture Compared With Nonabsorbable Suture in Upper Eyelid Blepharoplasty Closure

This study was designed as an assessment tool of patient satisfaction following upper eyelid blepharoplasty. A validated questionnaire was used to base the analysis. Specifically, our aim was to determine whether a clinically significant difference exists in quality of closure and to measure patient satisfaction, visibility of scars, and pain associated with the procedure when comparing absorbable suture with nonabsorbable suture in the closure of an upper eyelid blepharoplasty. Our primary goal was to objectively assess patient satisfaction following upper eyelid blepharoplasty. A secondary goal was to assess patient-perceived differences in terms of pain and visibility of scars between absorbable and nonabsorbable suture closure.

Traditionally, the success of a particular surgical procedure, even an aesthetic one, has been measured mostly by subjectively perceived outcome and to some degree by the frequency of complications. However, because complications occur much less frequently after upper eyelid blepharoplasty, complacency has prevailed with regard to its existing techniques. It has been well documented that the most common complication of upper eyelid blepharoplasty is milia. Milia have been shown by several study groups, including Rees and Guy, to occur with similar frequency in both the subcuticular polypropylene and the running catgut closures. Therefore, we undertook the study, not with the intent of examining rates of complications, but to objectively assess patient satisfaction with regard to the overall quality of closure, specifically addressing the resultant scar, pain associated with the procedure, and overall patient satisfaction.

Several well-documented transient sequelae are known with regard to both sutures studied in this article. Joshi et al reported that absorbable sutures can cause clinically significant inflammation and erythema during the process of degradation; however, because removal is not required, they are associated with less pain. Nonabsorbable sutures have the advantage of less tissue reactivity but often create considerable discomfort in patients on removal. Postoperative discomfort in blepharoplasty, especially during suture removal, can occur and has been previously reported.

Methods. A prospective study was performed in the Division of Otolaryngology–Head and Neck Surgery at a tertiary care hospital in Halifax, Nova Scotia, Canada. The study examined patients undergoing upper eyelid blepharoplasty by a single staff surgeon (S.M.T.). Closure of the incision was performed using absorbable sutures (6.0 fast-absorbing gut) in one eyelid and nonabsorbable sutures (6.0 nylon) in the opposite eyelid. Comparisons were performed by evaluating patient satisfaction, visibility of scars, and pain using a previously validated questionnaire, the Blepharoplasty Outcome Evaluation (BOE). The questionnaire was completed by the patient at 1 year or more after surgery. Patients who insisted on having identical suture in both eyelids were included in separate arms of the study as outlined in Figure 1.