An Ideal Female Breast Shape in Balance with the Body Proportions of Asians

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Background: Defining an ideal breast shape is one of the most fundamental and essential parts for a breast surgery. To propose a set of criteria for determining an ideal breast shape of Asians, the authors performed a survey using a questionnaire based on important esthetic elements of a breast.

Methods: The authors created a 11-item questionnaire, asking breast shape preference in the frontal and the lateral views. Each question had multiple options, each of which was accompanied by adequate illustrations.

Results: A total of 1,012 Asian responses were collected. In the frontal view, preferences converged for position of the nipple to be at 45% of the SU (distance from the sternal notch to the umbilicus) and the inframammary fold at 60% of the SU. For lateral bulging of the breast, the respondents preferred it to be 100% of the upper buttock, and 100% of the interacromion width. As for the lower pole height, breast width ratio of 50% was the most preferred. In the lateral view, straight slope of the upper breast was the most preferred, along with a 1.0 projection ratio and a front-facing nipple. The most ideal vertical proportion of the breast footprint was selected as 65:35, and for the anterior breast as 55:45.

Conclusion: The authors used a questionnaire analysis, which considers a proportional balance between the breast and the whole body shape, and proposed that an ideal breast shape can be used effectively in planning for and assessing the outcomes of breast surgery *(Plast Reconstr Surg Glob Open 2019;7:e2377; doi: 10.1097/GOX.0000000000002377; Published online 30 September 2019.)*

INTRODUCTION

Defining the concept and the assessment standard of esthetics is the most important and fundamental step of performing an esthetics surgery. For both cosmetic and reconstructive breast surgeries, the concept of an ideal breast shape must be clearly established in advance to allow precise planning and assessment of the surgical outcome. Developing a tool for objectively assessing the ideal breast shape will be a meaningful endeavor for practicing breast surgeons.

There have been many studies on various esthetic standards for facial surgeries.[1–3] There have also been numerous researches on ideal body shapes, waist–hip ratios, etc., and they are effectively used as markers in gluteal surgeries.[4–6] Unfortunately, research on the ideal breast shape has been scarce due in part to the methodological difficulties of objectively assessing the breast.[7,8]

In one of the prior studies on the preference for the upper pole shape among plastic surgeons and patients, the survey reported that while the plastic surgeons preferred a concave shape, the patients who had undergone breast augmentation surgeries preferred a convex-shaped upper pole.[9]

A different study quantified an ideal anthropomorphic value of a female breast and reported that an ideal sternal notch-to-nipple distance was 21–21.5 cm, an ideal nipple-to-base distance was 6 cm, and an ideal base-to-inframammary fold was 2 cm.[10]

Recent studies have analyzed breast shapes and nipple areola complex position that are perceived as natural and ideal by questionnaire study.[11–13]

It must be noted, however, to be readily used to plan for surgeries, an ideal breast shape should not be defined only in terms of the breast itself, but rather in proportion to the rest of the body. For this reason, a proportional representation of ideal breast parameters may be a more sound approach than absolute numerical definitions. Although there are some studies to identify the esthetic standard for the face of Asians,[1,14] the studies to identify ideal breasts for Asians are scarce, whereas several studies have been conducted to identify ideal breasts for Caucasians.

With this in mind, the authors have developed a new survey to better define the ideal breast shape and to analyze patient preferences of Asians.

SUBJECTS AND METHODS

Study Design

This study complies with the Declaration of Helsinki on the Use of Human Subjects in Research. All voluntary respondents signed an informed consent before taking part in the study.

We designed a cross-sectional questionnaire study. Only Asian volunteers older than 19 years of age were allowed to take part in this study.

Both offline – a physical questionnaire – and online – a Google form (https://docs.google.com/forms/) – surveys were made available. The questionnaire was given to the patients, the employees of our clinic, and their acquaintances by random selection after explaining the objectives of the study. Volunteers were asked to anonymously provide their demographic information, such as age, gender, and nationality before answering the survey questions. Female volunteers who had received or considered aesthetic surgery for augmentation or reduction were asked to answer "yes" to " interest in breast aesthetic surgery". The volunteers received the questionnaire in their native language.

Questionnaire Development

The survey (called *THE Breast Shape Preference Questionnaire*) featured frontal and lateral views[7,15] (see **figure, Supplemental Digital Content 1**, which displays THE Breast Shape Preference Questionnaire, http://links.lww.com/PRSGO/B186). Based on the assumption of the previous studies, the maximum projection point is the ideal nipple position.[7] Then, the following parameters were defined:

SU: vertical distance from the sternal notch to the umbilicus

Vertical Level

SN level (sternal notch level): a horizontal line passing through the sternal notch

N level (nipple level): a horizontal line linking the nipples

IMF level (inframammary fold level): a horizontal line linking the IMFs

IC level (iliac crest level): a horizontal line passing through the widest area of the iliac crest (Fig. 1)

Width

Upper buttock width: a horizontal width of the upper buttock on the IC level

Lateral breast width: a horizontal width between the lateral breast borders on the N level

Shoulder width: an interacromion distance

Assumptions

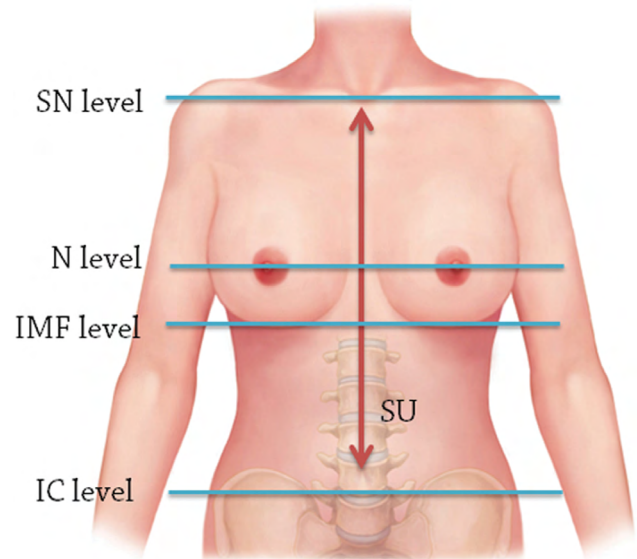1. Maximum projection point is on the nipple in ideal breast.

Fig. 1. Parameters for assessment. **SU**: vertical distance from the sternal notch to the umbilicus. **SN level** (sternal notch level): the horizontal line passing through the sternal notch. **N level** (nipple level): the horizontal line linking the nipples. **IMF level** (inframammary fold level): the horizontal line linking the IMFs. **IC level** (iliac crest level): the horizontal line passing through the widest area of the iliac crest.

2. Starting point of the upper breast is where the slope of the line linking the sternal notch and the nipple in the lateral view changes.
3. The width of the lateral breast is the widest at the N level in ideal breast.

The authors created a 11-item questionnaire, asking their preference in the frontal and the lateral views. In the frontal view, they were asked about their preferences in terms of the nipple (Fig. 2), IMF position (Fig. 3), lateral breast width (Figs. 4, 5), and lower pole proportion (Fig. 6). In the lateral view, they noted their preferences regarding slope of the upper pole (Fig. 7), the nipple position (Fig. 8), projection proportion (Fig. 9), nipple direction (Fig. 10), vertical proportion of the breast footprint (Fig. 11), and vertical proportion of the anterior breast (Fig. 12). Each question had multiple options, each of which was accompanied by adequate illustrations.

The illustrations were created using Photoshop CS 5.1 (Adobe Systems Corp., San Jose, Calif.) and Illustrator CS 5.1 (Adobe Systems Corp., San Jose, Calif.). We ensured the proportions by using the blocks of the same size (see **figure, Supplemental Digital Content 2**, which displays creation of illustrations, http://links.lww.com/PRSGO/B187).

To avoid bias, we made the 10 kinds of the questionnaires that the order of the panels of each question are different. Then, we gave these to volunteers randomly. Respondents were asked to select only 1 image that they deemed as most ideal for each question.

Statistical Analysis

Statistical analysis was performed using PASW statistics 18 (SPSS, Inc., Chicago, Ill.). A chi-square test was used to compare the categorical values. When 20% of the data had
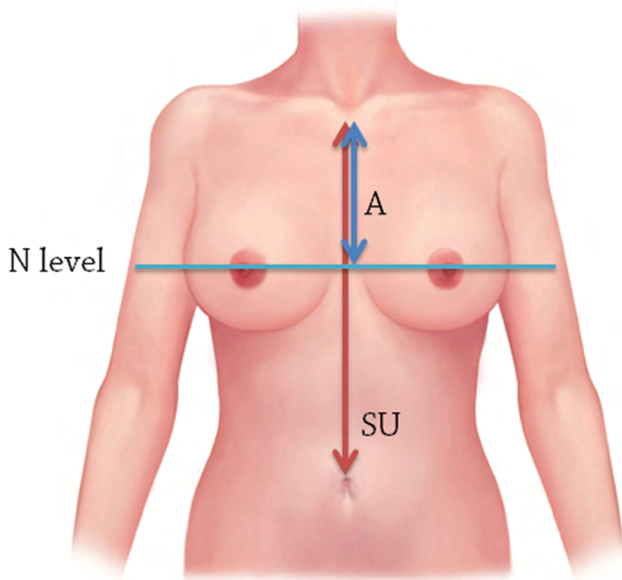
Fig. 2. Nipple position (frontal). **SU**: vertical distance from the sternal notch to the umbilicus. **A**: distance from the sternal notch to N level. Position of the nipple(%): **A/SU × 100**. Q1. What is the most ideal vertical position of the nipple from SN level? Choose between 35%, 40%, 45%, and 50% of the SU.

Fig. 3. IMF position (frontal). **SU**: vertical distance from the sternal notch to the umbilicus. **B**: distance from the sternal notch to the IMF level. Position of the IMF(%): **B/SU × 100**. Q2. What is the most ideal vertical position of the inframammary fold (IMF) on from SN level? Choose between 50%, 55%, 60%, and 65% of the SU.

less than 5 counts, Fisher's exact test was used to compare the responses. $P < 0.05$ was used for statistical significance.

RESULTS

Demographics of the Respondents

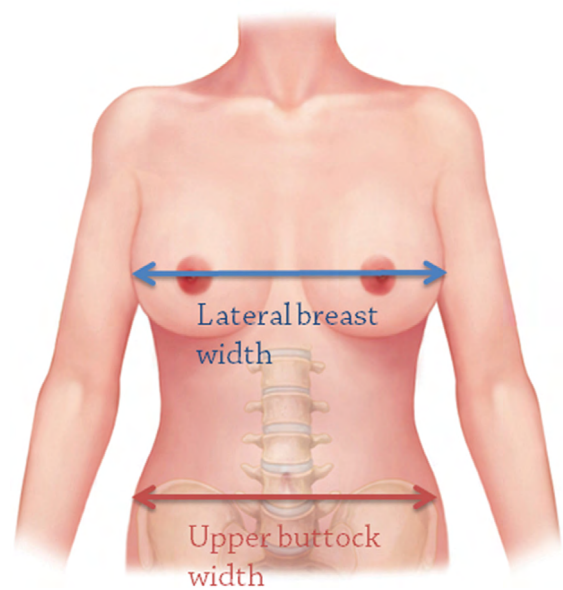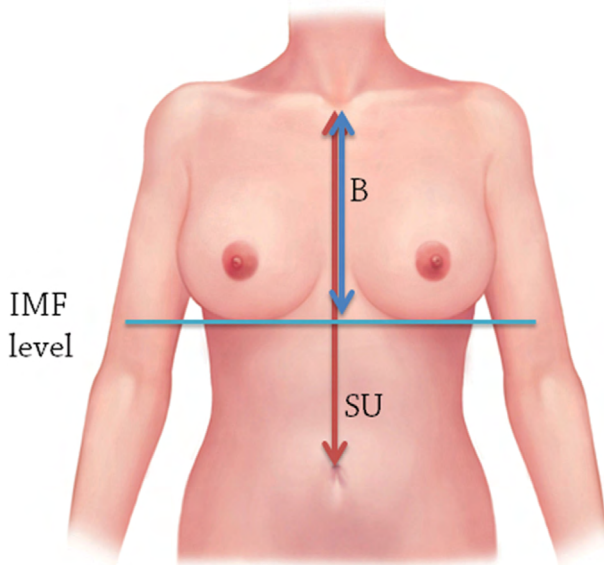A total of 1,012 Asians took part in the survey, of whom 706 (70%) were female and 306 (30%) male.

Fig. 4. Lateral breast width/upper buttock width. **Upper buttock width**: horizontal width of the upper buttock on the IC level. **Lateral breast width**: horizontal width between the lateral breast borders on the N level. Lateral breast bulging (%): **lateral breast width/upper buttock width× 100**. Q3. What is the most ideal lateral breast width? Choose between 90%, 95%, 100%, and 105% of the lateral breast width:upper buttock width ratio.

Fig. 5. Lateral breast width/shoulder width. **Shoulder width**: interacromion distance. **Lateral breast width**: horizontal width between the lateral breast borders on the N level. Lateral breast bulging(%): **lateral breast width/shoulder width × 100**. Q4. What is the most ideal lateral breast width? Choose between 90%, 95%, 100%, and 105% of the lateral breast width:shoulder width ratio.

Among them, 97 answered online and 915 answered offline survey.

The average age of the respondents was 35.9. Distribution across the age groups showed that 244 (24%) were

Fig. 6. Lower pole proportion (frontal) (lower pole height/breast width). **C** (breast width): width of the breast on the N level. **D** (lower pole height): vertic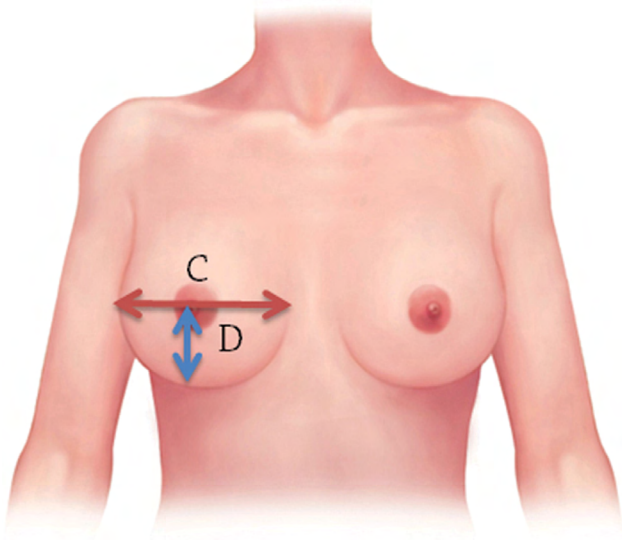al distance from the N level to the most inferior portion of the breast. Lower pole height/breast width ratio(%): **D/C × 100**. Q5. What is the most ideal ratio of the lower pole height to the breast width on the N level? Choose between 40%, 45%, 50%, and 55% of the lower pole height (from the nipple to the most inferior portion of the breast): the breast width.
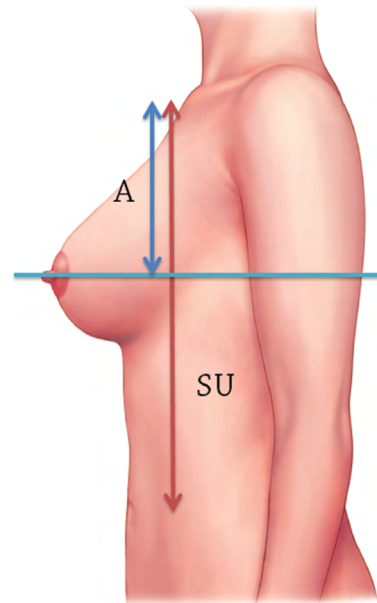

Fig. 8. Nipple position (lateral). **SU**: vertical distance from the sternal notch to the umbilicus. **A**: distance from the sternal notch to N level Position of the nipple: **A/SU × 100**. Q7. What is the most ideal maximum projection point? Choose between 35%, 40%, 45%, and 50% of the SU.
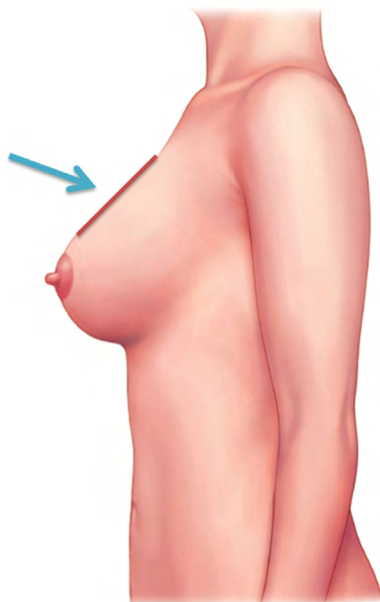

Fig. 7. Slope of the upper breast. Q6. What is the most ideal slope of the upper breast? Choose between moderate concave, mild concave, straight, mild convex, and moderate convex.

ested in the esthetic breast surgery. Plastic surgeons were not included among the respondents.

Overall

In the frontal view, the most ideal position of the nipple was chosen as 45% of the SU height (49% of the respondents) and the most ideal position of the IMF as 60% of the SU height (48%). The most ideal lateral width of the breast was reported as 100% of the upper buttock width (56%) and 100% of the shoulder width (55%). The most ideal ratio of the lower pole height to the breast width was 50% (47%).

In the lateral view, the most ideal slope of the upper breast was *straight* as selected by 32% of the respondents, but it was closely followed by *mild concave* (30%) and *mild convex* (28%). The most ideal maximum projection point was 45% of the SU height (56%), which was in agreement with the most ideal nipple position from the frontal view. The most ideal projection proportion was selected to be 1.0 (55%), and the most ideal nipple direction was front-facing (52%). As for vertical proportion of the breast footprint, 58% of the respondents chose 65:35 ratio as the most ideal, while 55:45 was selected as the most ideal vertical proportion of the anterior breast (44%) (Table 2) (see **figure, Supplemental Digital Content 3**, which displays overall results, **http://links.lww.com/PRSGO/B188**).

Results by Gender

Statistically significant differences between the genders were found in the preferences regarding lateral breast width/upper buttock width, lower pole proportion,

in the 19–29 range, 482 (48%) in the 30–39 range, 187 (18%) in the 40–49 range, and 99 (10%) in the 50+ range; 881(87%) were Korean; 97 (10%) were Chinese; and 34 (3%) were Japanese (Table 1). A total of 438 (62%) among female respondents answered that they were inter-
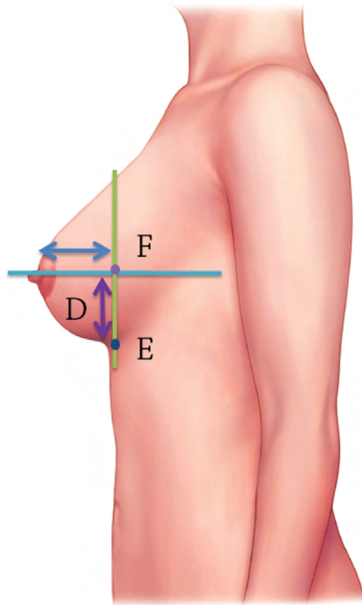
Fig. 9. Projection proportion. **E**: most inferior point of the breast from the lateral view. **F**: a point where the N level meets a vertical line passing through the most inferior point of the breast (E). **D** (lower pole height): vertical distance from the N level to the most inferior portion of the breast. Projection of the breast: **nipple to E distance/D**. Q8. What is the most ideal projection proportion? Choose between 0.6, 0.8, 1.0, 1.2, and 1.4 of the ratio between F-nipple distance and lower pole height.

slope of the upper pole, nipple direction, vertical proportion of the breast footprint, and vertical proportion of the anterior breast (Table 3) (see **figure, Supplemental Digital Content 4**, which displays results by gender, *: $P < 0.05$, Ŧ: data analyzed using Fisher's exact test, **http://links.lww.com/PRSGO/B189**). The largest gender gap was reported in the question about slope of the upper pole, where female respondents preferred a straight line (34%) and male a mild concave line (29%). However, for males, the difference between their first preference and the 2 second preferences (straight, 28% and mild convex, 28%) was very small.

Results by Age Group

A comparison by age group showed statistically significant differences in all but 1 question on the lower pole proportion (Table 3) (see **figure, Supplemental Digital Content 5**, which displays results by age group, *: $P < 0.05$, Ŧ: data analyzed using Fisher's exact test, **http://links.lww.com/PRSGO/B190**). The respondents in their 20s tended to prefer larger lateral breast width and more convex shape of the upper pole. The respondents in their 30s and older, however, tended to prefer more concave shape. The older the age group, the higher preference for a concave shape. In the question on the nipple direction, the 30–39 age group showed as much preference for upward 10° as for front-facing.

Results by Esthetic Breast Surgery Interest

Significant differences were found between female respondents with and without an interest in the esthetic breast surgery in the questions regarding lateral breast width/upper buttock width, lateral breast width/chest width, lateral breast width/shoulder width, lower pole proportion, nipple position in lateral view, nipple direction, vertical proportion of the breast footprint, and vertical proportion of the anterior breast (Table 3) (see **figure, Supplemental Digital Content 6**, which displays Results by interest in female respondents, *: $P < 0.05$, Ŧ: data analyzed using Fisher's exact test, **http://links.lww.com/PRSGO/B191**). The respondents with an interest in the esthetic breast surgery tended to prefer a fuller-looking breast in both frontal and lateral views.

DISCUSSION

Establishing a universal esthetics standard and using it to plan and perform surgeries are critical in cosmetic surgery, as one of its important goals is achievement of beauty. Such standard is lacking in the field of breast surgery and practitioners depend on their personal, subjective criteria and their patient preferences when they plan surgeries. Therefore, a set of quantitative criteria to plan, guide, and assess breast surgeries would thus be very useful.
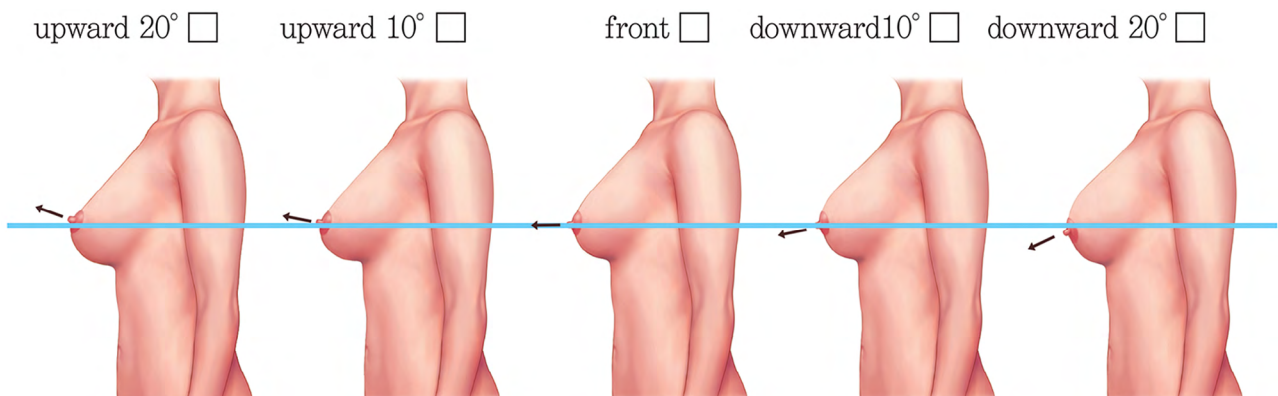

Fig. 10. Nipple direction. An angle between a horizontal line passing through the nipple and a straight line faced by the nipple. Q9. What is the most ideal direction of the nipple? Choose between upward 20°, upward 10°, front, downward 10°, and downward 20°.
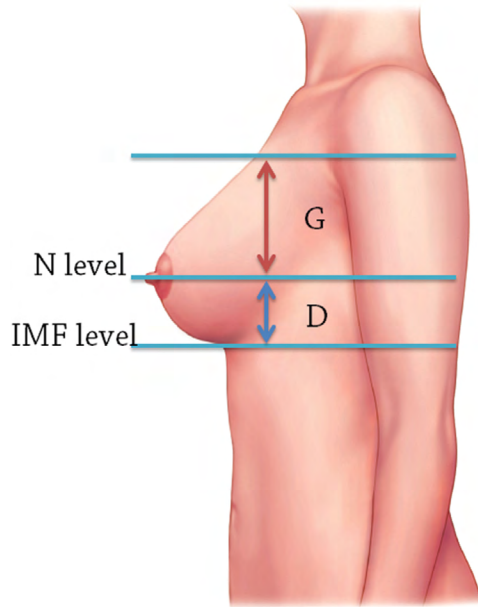
Fig. 11. Vertical proportion of the breast footprint. **G:** distance from the starting point of the upper breast to the N level. **D** (lower pole height): vertical distance from the N level to the most inferior portion of the breast. Upper pole: lower pole ratio (vertical proportion of breast footprint) = **G:D**. Q10. What is the most ideal upper pole:lower pole ratio? Choose between 45:55, 55:45, and 65:35 of the ratio between the start of the upper breast–N level and the N level–IMF level distance (lower pole height).
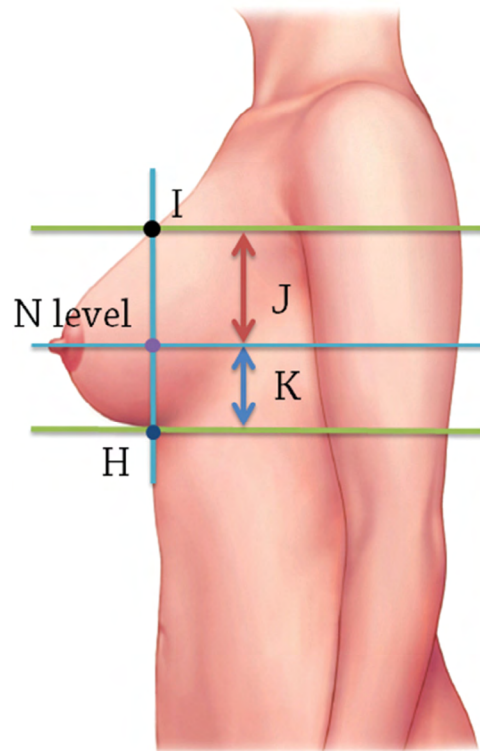
Table 1. Respondent Demographic Results

Demographic Characteristics	Total (%)	Male (%)	Female (%)
No.	1,012 (100)	306 (30)	706 (70)
Age			
Average (y)	35.9	37.1	35.6
19–29 y	244 (24)	38 (12)	206 (29)
30–39 y	482 (48)	200 (65)	282 (40)
40–49 y	187 (18)	48 (16)	139 (20)
≥ 50 y	99 (10)	20 (7)	79 (11)
Interest in aesthetic breast surgery			
Not interested			268 (38)
Interested			438 (62)
Nationality			
Korean	881 (87)	271 (89)	610 (86)
Chinese	97 (10)	33 (11)	64 (9)
Japanese	34 (3)	2 (1)	32 (5)

In their recent study, Mallucci and Branford analyzed natural breasts of 100 models and identified 4 attributes of an ideal breast: an upper pole-to-lower pole ratio of 45:55 (the "45:55 breast"); a skyward-pointing nipple (20° mean angle); a straight/mildly concave upper pole slope; and a tight lower pole convexity.[11] They then asked 1,351 people to select an ideal breast shape in a survey and reaffirmed the importance of those 4 attributes.[12] Although the authors argued that the attributes are universally applicable across all ethnicities, we experienced difficulties in applying their findings in our clinical practice. The oblique view used in the research survey was not practical for surgical planning, as the breast shape changed depend-

Fig. 12. Vertical proportion of the anterior breast. **H:** a point where the breast meets the abdomen. **I:** a point where a vertical line crossing H meets the upper breast slope. **J:** distance from I to the N level. **K:** distance from the N level to H. Upper anterior breast:lower anterior breast ratio = **J:K**. Q11. What is the most ideal vertical proportion of the anterior breast? Choose between 45:55, 50:50, 55:45, 60:40, and 65:35 of the ratio between I–N level and N level–H.

Table 2. Ideal Breast Shape in Asians

Questions	Most Attractive Answer	%
Frontal view		
1. Nipple position	45%	49
2. Inframammary fold (IMF) position	60%	48
Lateral breast width/		
3. Upper buttock width	100%	56
4. Shoulder width	100%	55
5. Lower pole proportion (lower pole height/breast width)	50%	47
Lateral view		
6. Slope of upper pole	Straight	32
7. Nipple position	45%	56
8. Projection proportion (projection/lower pole height)	1	55
9. Nipple direction	Front	52
10. Vertical proportion of breast footprint (upper:lower)	65:35	58
11. Vertical proportion of anterior breast (upper:lower)	55:45	44

ing on the angle. The inconsistency in the patient positions featured in the survey also made it difficult to make comparisons. In addition, when the female had the longer vertical length of lower pole than that of upper pole and their nipple position were upward, they were more likely to think their breasts were saggy. Having a sole focus on

Table 3. *P* value

Questions	Female Versus Male	Age Groups	Interested Versus Not Interested
1. Nipple, frontal view	ns	0.021	ns
2. Inframammary fold, frontal view	ns	0.000	ns
3. Lateral breast width/upper buttock width	0.000	0.000	0.005
4. Lateral breast width/shoulder width	ns	0.000	0.009
5. Lower pole proportion	0.000	ns	0.000
6. Slope of upper pole	0.018	0.000	ns
7. Nipple position, lateral view	ns	0.004	0.000
8. Projection proportion	ns[Ŧ]	0.000[Ŧ]	ns[Ŧ]
9. Nipple direction	0.012[Ŧ]	0.000[Ŧ]	0.001[Ŧ]
10. Vertical proportion of breast footprint (upper:lower)	0.000	0.000	0.023
11. Vertical proportion of anterior breast (upper:lower)	0.000	0.000	0.002

ns: not significant; Ŧ: data analyzed using Fisher's exact test.

breast shape and thus failing to consider the whole body shape of patients may result in disrupting the balance of the body in general.

We developed a survey, which uses frontal and lateral views that feature different proportions of the breast. The survey rates not only the shape of the breast itself but also the proportional balance between the breast and the rest of the body. In assessing the whole body balance, umbilicus, sternal notch, iliac crest, and acromion (which are generally less affected by patient's age, body weight, or surgery) were used as anatomical landmarks.[16,17]

The survey further asks about the lateral breast width in the frontal view and the upper border-to-IMF ratio and the breast projection in the lateral view so as to identify the most preferred dimensions of the breast.

In identifying the most ideal vertical position of the breast, the survey result showed that Asians most preferred a 45:55 ratio for sternal notch–nipple to nipple–umbilicus and a 60:40 ratio for sternal notch–IMF to IMF–umbilicus. Our approach marks a significant departure from that of the previous studies, where a breast width was used to describe an ideal length of a stretched arc from the nipple to the new IMF.[18] This method, by determining the breast base and the proportional envelope of the lower pole, is limited to achieving an esthetic balance in the breast alone. Our study, on the other hand, attempted to identify an ideal vertical position of the IMF proportional to the whole body.

Lateral breast width in proportion to the whole body can only be assessed when shoulder width or buttock width is considered. We used the acromion and the iliac crest as anatomical landmarks for assessment. Results of the survey showed that the most preferred extent of the lateral breast was that similar to the interacromion distance or width of the upper buttock.

The upper pole-to-lower pole ratio depends on the location of the reference point or on the position of the patient. We defined it as a ratio of the vertical distance from the nipple level to the upper border of the breast footprint to the vertical distance from the nipple level to the lower border of the breast footprint. This was assessed in the lateral view, as the upper border of the breast footprint is not clear in the frontal view. And as the upper and lower borders of the breast footprint are not located on 1 vertical line, 2 vertical lines, each of which passes through the borders, were used to assess vertical proportion. The survey result showed that 65:35 ratio was most preferred when a vertical line passing through the upper border of the breast footprint was used, while a 55:45 ratio was most preferred when a vertical line passing through the lower border of the breast foot print was used for assessment. In short, a vertically longer upper pole from the lateral view was perceived by the respondents as the most ideal (Fig. 13). Here, it should be noted that being a curved line, the upper border of breast changes according to the patient position.[19] This explains the difference in the starting point of the upper pole between our lateral view and Mallucci and Branford's oblique view,[12] and we believe that it is not adequate to compare the upper pole-to-lower pole ratio in the oblique view (Table 4).

Another survey question addressed the controversy around the upper pole shape[9,12] and the nipple direction.[12,13] We slightly adjusted the direction of the nipple according to the shape of the upper pole so as to present more natural looking breasts. As a result, straight slope of the upper breast and front-facing direction of the nipple came out as the most preferred. Only few respondents selected an upward 20° direction.

Projection of the breast, although a critical factor when selecting an implant for augmentation, is often difficult to assess due to lack of objective methodologies.[7] We have defined the projection in terms of a ratio to the lower pole height so as to enable objective assessment and description. The lower pole height-to-breast width ratio in the frontal view was also used to quantify the breast shape. The result showed that 1.0 projection in the lateral view and 50% lower pole height-to-breast width ratio in the frontal view were most preferred. In other words, most Asians preferred the lower pole looking similar to a half of the hemisphere (Fig. 13, Table 4).

When comparing different groups, males preferred more lateral width of the breast in the frontal view. The respondents in their 20s preferred more convex breasts, while those in their 30s and older preferred more concave shapes. This may be related to changes in people's perception of ideal breast shapes as they experience birth and breast feeding in their 30s. Those interested in esthetic breast surgery tended to prefer larger and fuller breasts than those not interested.
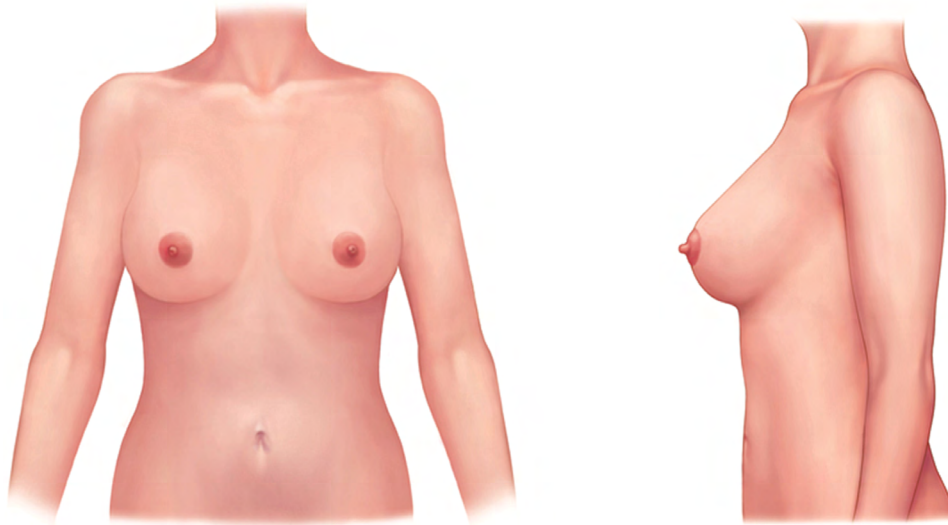
Fig. 13. Ideal breast illustrations.

Table 4. Comparison between the Ideal Caucasian Breast and the Ideal Asian Breast

|	Caucasian (Mallucci and Branford[12])	Asian (Current Study)
View position	Oblique	Frontal and lateral
Breast proportion	Upper pole-to-lower pole ratio of 45:55 (the "45:55 breast")	Vertical proportion of breast footprint (upper:lower) = 65:35 Vertical proportion of anterior breast (upper:lower) = 55:45
Nipple direction	Skyward-pointing nipple (20° mean angle)	Front
Slope of upper pole	Straight/mildly concave	Straight
Lower pole shape	A tight lower pole convexity	A half of the hemisphere
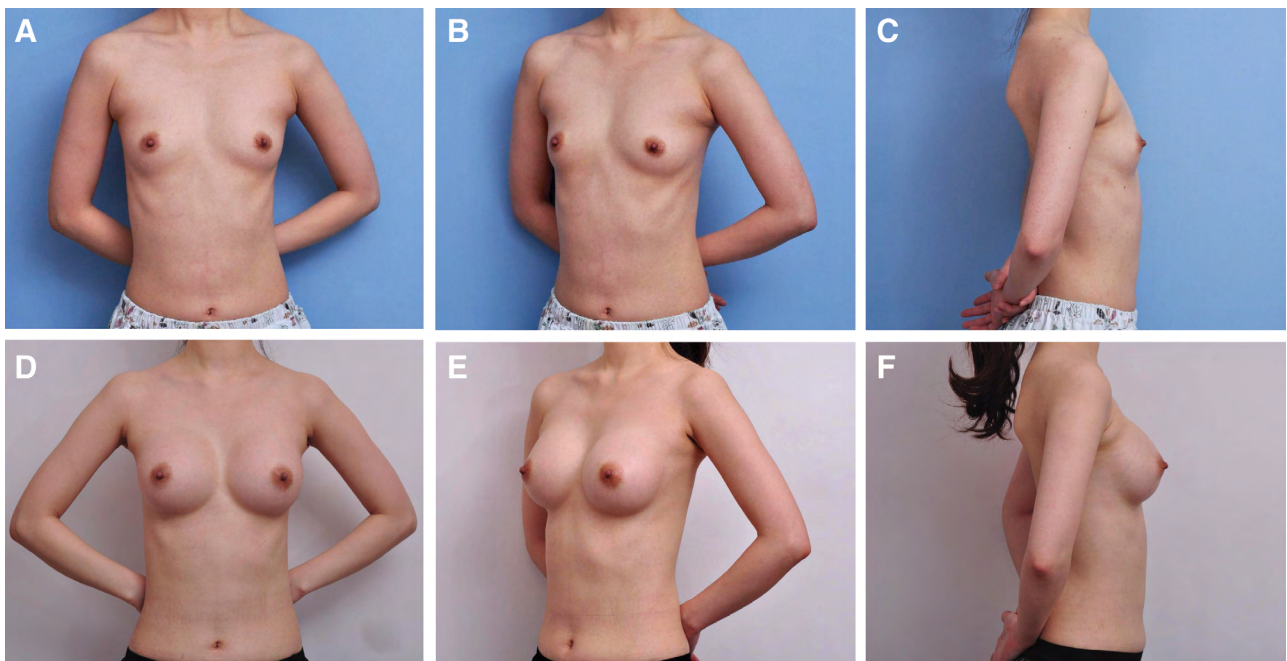
Fig. 14. A, C, E, 32-year-old female patient. She is 167 cm in height and weighs 49 kg. She received breast augmentation with Motiva implants (Ultima demi Rt. 300 cc, Lt 285 cc) via transaxillary approach. Her nipple was located at the level of 38% from the sternal notch to umbilicus. B, She shows the narrow intermammary distance and lateral protrusion beyond the margin of the chest after surgery. D, We can see the upper limit of her breast footprint is located at the level of one-third from the sternal notch to nipple. F, Lateral curvature of the breast is slightly protruded and the projection amount is similar to the vertical distance from the nipple to the inferior border of the breast. She was very satisfied with her results.

The ideal breast shape identified from our survey is similar to the outcomes of surgical cases, in which patient satisfaction was high. Of course, the most ideal shape may not be feasible in all patients as they each have unique anatomical features (Fig. 14). Moreover, there may be discrepancies between the most ideal shape and what is preferred by a patient. For instance, a low nipple cannot be sufficiently lifted by breast augmentation alone. Likewise, a patient with funnel chest cannot have so much lateral bulging breasts.

Our survey used 3D illustrations, rather than photographs or 2D images, for more real-life effects. We chose not to use edited images from real-life photographs as in other studies[12,20] because first, the editing often makes the photographs unnatural, and second, the body shapes and the skin tones and textures of model in the photographs may bias the responses.

While inferior border of the breast was defined as the IMF level in the frontal view in our survey, they may be 2 different levels in a real breast. However, we believe the difference, if any, will be small in Asians, as we have found that the 2 levels overlap in many Asian patients receiving breast augmentation (Fig. 14B).

All of our respondents were Asians. Most Asians who seek breast augmentation, are slim with tight skin and narrow buttocks. They also have relatively shorter lower bodies, do not have a large volume of breast tissues, are likely less developed, and have constricted breasts in many cases. Many of them have the upper chest projected relative to the lower chest. On top of such physical differences, social and cultural factors may impact perceptions and esthetic preferences.[20,21] Many Asians prefer the nonptotic and proper-sized breasts rather than the ptotic and big breast. Furthermore, sometimes they feel like having oversized breasts is shameful and a bit vulgar. To understand the most ideal breast shapes in other ethnicities or cultures, more universal adaptation of THE Breast Shape Preference Questionnaire is required.

The respondents of this study were mostly the patients, the employees of our clinic and their acquaintances. It is because we wanted our respondents to understand the purpose of the study and the questions of the questionnaire precisely. However, this means there can be a potential selection bias.

That said, our results can be used as an important guide for determining the positions of the IMF and the nipple in breast augmentation, reduction, and/or reconstruction surgeries. This research is also significant in that it defines an ideal breast shape in the context of the whole body and thus contributes to improving the overall body image for Asian patients.

CONCLUSIONS

The most ideal breast shape preferred by Asians has a nipple and an IMF at 45% and 60%, respectively, of the SU line (from the sternal notch to the umbilicus); a front-facing nipple; a straight slope of the upper breast; and a ratio of 65:35 between the upper and lower breast footprint. Fifty percent of the breast base was most preferred for the lower pole height, while the most ideal projection proportion was reported to be equal to the lower pole height. We believe that these survey results can be used as an important guide in planning for and assessing the outcome of breast surgeries.

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