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Asian Outcomes of Primary Breast Augmentation in 162 Consecutive Cases by a Single Surgeon

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Background: In 162 Asian patients, primary breast augmentation was performed by a single surgeon during 5 years. The purpose of this study evaluates Asian outcomes in primary breast augmentation using single antibiotic breast irrigation by a single surgeon's practice and examines the comparison of Asian and Western outcomes in primary breast augmentation.
Methods: A retrospective chart review was performed to examine a total of 162 patients who received the same brand of implants for primary breast augmentation under sedative anesthesia (propofol infusion) in a single surgeon's practice. Asian patients' demographics, preoperative and postoperative measurements, surgical technique (single antibiotic breast irrigation), implant type, size, texture, soft tissue coverage, implant placement, incision approach, complications, and incidence of reoperation were documented.
Results: This study presents data for 162 primary breast augmentation who received a total of 324 implants. The mean length of follow-up for all patients was 25.1 months (range, 6–60 months). The difference between Tebbetts and Adams' reoperation proportion ($\rho_0 = 0.028$) and this article's reoperation proportion ($\rho_0 = 0.0185$) is not statistically significant (Pvalue = 0.3707). Reoperation rate and complications are not related with implant type, implant placement, body mass index, and incision approach.
Conclusions: By comparison, the reoperation rates between Asian and Western patients are equal due to adequate preoperative evaluation and surgical procedure. The differences are found somewhat in the average measurements of age, body mass index, and implant size. The technique of the use of blunt dissection with fingers under tumescent infiltration and single antibiotics irrigation provides an alternative way to surgeons for breast augmentation. *(Plast Reconstr Surg Glob Open 2015;3:e537; doi: 10.1097/GOX.0000000000000518; Published online 20 October 2015.)*

The use of breast implants is associated with a number of complications, including hematoma, seroma, infection, altered nipple sensation, asymmetry, deflation, rippling, and capsular contracture.[1] Until the early 2000s, capsular contracture was a significant postoperative complication and cause of reoperation. The best and most controlled available data come from the implant manufacturers' premarket approval prospective trials, with reoperation rates of 9% for primary augmentation and up to 30% for breast reconstruction patients in the Mentor's saline trial (2001), 9% for augmentation and 25% for reconstruction patients in the Inamed's saline trial (2001), and 8–9% for the augmentation subgroup in Inamed's and Mentor's silicon gel implant premarket approval trial (2003 and 2005, respectively).[2–5]

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But Tebbetts[6] reported 0% reoperation rate in 50 consecutive patients followed for 3 years. He described a comprehensive process for managing the implant patient that allowed him to achieve this impressive outcome.[7] Adams et al[5] reported the clinical experience including more than 300 augmentation with an overall reoperation rate of 2.8%. Heden et al[8] reported their experience with 163 patients undergoing breast augmentation with shaped gel implants. Complications were low, with ruptures reported in 1.7% of patients and capsular contracture occurring in 5.3% of implants.

Multiple studies in a large scale recently have shown both complication rates and reoperation rates. Huang et al[9] have reported the results that capsular contracture occurred in 73 patients (4.3%) and required reoperation in 58 (3.4%) of a total of 1682 breast augmentations. Codner at al[10] have published a total of 812 breast augmentations with the capsular contracture of 8.2% and the reoperation rate of 14.2%. Somogyi et al[7] have reported 1539 consecutive cases in primary breast augmentation with total complication and reoperation rates of 6.8% and 7.7%, respectively.

There are multiple factors that can affect the complication and reoperation rates in breast augmentation. They are patients' demographics, preoperative measurements, surgical technique (antibiotic breast irrigation), and implant characteristics—including implant type, size, and surface; soft tissue coverage; implant placement; and incision approach.[7,11–14]

In Asia, breast augmentation is actually one of the most common procedures increasing in plastic surgery. The purpose of this study evaluates Asian outcomes in primary breast augmentation using single antibiotic breast irrigation by a single surgeon's practice and examines the comparison between Asian and Western outcomes in primary breast augmentation.

PATIENTS AND METHODS

Retrospective analysis was performed on 162 patients undergoing primary breast augmentation by a single surgeon during a 5-year period from 2010 to 2015. The follow-up period ranged from 6 to 60 months postoperatively, with a mean of 25.1 months. Patient demographics are listed in Table 1. The data from patients included length of follow-up, preoperative and postoperative measurements, surgical technique (single antibiotic breast irrigation), implant type, size, texture, soft tissue coverage, implant placement, incision approach, complications, and incidence of reoperation. The study focused on patients who had cosmetic primary breast augmentation either alone ($n = 152$) or in conjunction with mastopexy ($n = 9$) and inverted nipple correction ($n = 1$). All patients ($n = 162$) received a single brand of breast implants from Allergan (Irvine, Calif.). The implants are grouped into categories based on implant-specific characteristics that included the implant texture, shape, and style. This resulted in 2 implant categories, as shown in Table 2.

Preoperative evaluation was based on individual patient breast dimensional analysis,[15] soft tissue characteristics, and patient preferences.[5] Implant type, size, and incision approach were chosen by this evaluation.

Operative Technique

Preoperative intravenous antibiotics were administered to all patients (cefazolin or ofloxacin for penicillin allergic patients). With the patient under sedative anesthesia (propofol infusion without short-acting muscle relaxant), wide preparation and draping using povidone-iodine are performed using talc-free gloves and povidone-iodine gauze nipple shields. Tumescent solution (40 mL of 2% lidocaine with 1:100,000 epinephrine and 10 mL of 8.4% sodium bicarbonate mixed with 500 mL of normal saline) is infiltrated in the precise plane (subglandular or subpectoral/dual planes). Pockets are developed precisely with blunt dissection with fingers and instruments under both direct and indirect visions simultaneously, if needed, using endoscopy, while careful hemostasis is done.[13] After dissection, 2 pockets are irrigated with 300 mL of single antibiotic solution (1 g of cefazolin and 500 mL of normal saline) without active evacuation of the irrigation. When redraping and repreparation by using povidone-iodine are performed before implant insertion, a new pair of talc-free gloves is used and cleansed with the single antibiotic solution. After negative-suctioned drains are inserted into the pockets, implants bathed in the single antibiotic solution are inserted with skin contact in the condition of no use of insertion sleeves.

Table 1. Patient Demographic Information

Variable	No. of Patients (%)
No. of patients	162
Age	
Under 29 years	64 (39.51)
30–39 years	57 (35.19)
40–49 years	30 (18.52)
Over 50 years	11 (6.79)
BMI	
<18.5	39 (24.38)
≥18.5	121 (75.63)

BMI, body mass index

Table 2. Implant Categories with Corresponding Manufacturer and Style Number

Implant Type	Manufacturer/ Style	No. of Implants (%)
Smooth round gel	Allergan Style 15	286 (88.27)
Textured round gel	Allergan Style 115	38 (11.73)

Incisions are closed with interrupted or running 4-0 Vicryl in the superficial fascia. Skin is closed with 4-0 Vicryl deep subdermal suture and 5-0 polydioxanone sutures subcuticular suture. The patients take rest in the recovery room for 4–6 hours and are discharged with drains and patient-controlled analgesia. The drains and patient-controlled analgesia are withdrawn the next day **(See video, Supplemental Digital Content 1**, which demonstrates the surgical technique for transaxillary subpectoral breast augmentation with 286-mL, smooth type, Natrelle. This video is available in the "Related Videos" section of the Full-Text article on PRSGO.com or available at http://links.lww.com/PRSGO/A140).

Statistical Analysis

Statistical analyses were performed using SAS 9.3 (SAS institute, Cary, N.C.). Continuous variables are expressed as mean and standard deviation (SD). Categorical variables are expressed as frequencies and proportions. To find significant difference between variables and body mass index (BMI), *t* tests are used for continuous variables and chi-square tests are used for categorical variables.

The Z-test for equality of given proportion (Tebbetts and Adams's reoperation proportion, $\rho_0 = 0.028$)[5,14] is used to find significant difference between Tebbetts and Adams's reoperation proportion and this article's reoperation proportion $(\rho_0 = 0.0185)$ after confirming the significant difference between Tebbetts and Adams's reoperation proportion and reoperation proportion in total patients according to high 5 system.[14] Also chi-square tests of independence are used to find significant relationship between categorical variables (implant type, implant placement, BMI, and incision approach) and reoperation, simultaneously with finding significant relationship between categorical variables and complications. *P* value <0.05 was considered statistically significant in all analyses.

RESULTS

This study presents data for 162 primary breast augmentations either alone (*n* = 152; 93.82%) or in conjunction with mastopexy (*n* = 9; 5.56%) and inverted nipple correction (*n* = 1; 0.62%), for a total of 324 implants. Mean patient age was 33.98 years (range, 21–53 years) in the augmentation group; 41 years (range, 28–61 years) in the augmentation-mastopexy group. The mean length of follow-up for all patients was 25.1 months (range, 6–60 months) (Table 3). The rate of follow-up at 5 years for all patients was 92%.

The patients received smooth (*n* = 286; 88.27%) and textured (*n* = 38; 11.73%) silicon gel implants. Average implant size was 253.98 mL (range, 150–304 mL). Pocket location was distributed with subglandular pocket in 73.5% (*n* = 119), subpectoral pocket in 20.4% (*n* = 33), and dual-plane 1 pocket in 6.1% (*n* = 10).[16] Patients had implants placed through transaxillary incision (*n* = 87; 55.77%) with the remainder being placed through inframammary fold (*n* = 69; 44.23%) (Table 4).

The complications in a total of 3 patients (1.85%) were summarized as follows: Baker grade II contracture was 1 case (0.62%), Baker grade III contracture was 1 case (0.62%), and rippling was 1 case (0.62%). A total of 3 patients (1.85%) underwent reoperation: 2 cases for correction of Baker grade II/III contracture (1.23%), 1 case for size exchange (0.62%) (Table 5).

In analysis with BMI in Asian patients, group I has patients with BMI < 18.5 and group II has patients with BMI ≥ 18.5. There are statistically significant variables: age (group I: group II = 30.55:34.97), body weight (group I: group II = 45.95:53.29), anterior pull skin stretch (group I: group II = 2.1:2.61), breast base width (group I: group II = 11.45:12.55), right breast height (group I: group II = 11.53:11.67), clavicle to nipple distance (group I: group II = 17.6:19.85), lateral pinch (group I: group II = 1.72:1.99), medial pinch (group I: group II = 2.16:2.92), middle line to nipple (group I: group II = 8.6:9.7), nipple to inframammary fold distance (group I: group II = 5.0:5.33), sternal notch to nipple distance (group I: group II = 18.14:20.19), upper pole pinch (group I: group II = 2.49:2.97), and propofol volume (group I: group II = 146.23:170.32) (Table 6). The relationship of BMI groups and inframammary fold is statistically significant (*P* value=0.0220); lowering inframammary fold in group I is more frequent than in group II (Table 7).

In total patients according to high 5 system,[14] the number of patients of not over estimated volume is 101 and the number of reoperation patients is 2. The difference between Tebbetts and Adams's reoperation proportion $(\rho_0 = 0.028)$ and reoperation proportion is not statistically significant (*P* value = 0.5543) in the high 5 system of not over estimated volume. The number of patients of implant base width ≤ breast base width is 121 and the number of reoperation patients is 2. The difference between Tebbetts and Adams's reoperation proportion $(\rho_0 = 0.028)$ and

Table 3. Descriptive Analysis of Continuous Variables

Variable	Average (SD)	No. of Patients	Variable	Average (SD)	No. of Patients
Age	33.98 (8.7)	161	BMI	19.71 (1.97)	160
Body weight (kg)	51.94 (8.33)	162	Follow-up period (months)	25.1 (10.85)	162
Height (cm)	161.57 (5.02)	160	Lateral pinch (cm)	1.94 (0.73)	298*
OP Time (minutes)	110.87 (51.78)	121	Lateral pinch left	1.98 (0.71)	149
APSS (cm)	2.49 (0.79)	280*	Lateral pinch right	1.9 (0.75)	149
APSS left	2.53 (0.8)	140	Middle line to nipple (cm)	8.97 (1.08)	296*
APSS right	2.44 (0.78)	140	Middle line to nipple left	9.01 (1.15)	148
Areolar diameter (horizontal) (cm)	2.98 (0.91)	286*	Middle line to nipple right	8.93 (1.01)	148
Areolar diameter (horizontal) left	3 (0.92)	143	Medial pinch (cm)	2.74 (2.51)	298*
Areolar diameter (horizontal) right	2.97 (0.9)	143	Medial pinch left	2.89 (3.38)	149
Areolar diameter (vertical) (cm)	2.86 (0.87)	286*	Medial pinch right	2.6 (1.08)	149
Areolar diameter (vertical) left	2.88 (0.87)	143	Nipple to IMF (N-IMF) (cm)	5.27 (1.23)	298*
Areolar diameter (vertical) right	2.85 (0.87)	143	Nipple to IMF (N-IMF) left	5.35 (1.25)	149
BBW (cm)	12.3 (1.5)	298*	Nipple to IMF (N-IMF) right	5.19 (1.2)	149
BBW left	12.19 (1.2)	149	Nipple to IMF (stretched) (cm)	7.13 (1.34)	298*
BBW right	12.41 (1.75)	149	Nipple to IMF (stretched) left	7.19 (1.38)	149
BH (cm)	13.02 (12.41)	298	Nipple to IMF (stretched) right	7.07 (1.3)	149
BH left	12.33 (8.24)	149*	SN-N (cm)	19.72 (2.33)	296*
BH right	13.71 (15.51)	149	SN-N left	19.81 (2.36)	148
C_N (cm)	19.34 (2.57)	298*	SN-N right	19.64 (2.29)	148
C_N left	19.42 (2.5)	149	Upper pole pinch (cm)	2.86 (0.84)	298*
C_N right	19.25 (2.64)	149	Upper pole pinch left	2.91 (0.86)	149
Drain (mL)	59.83 (43.18)	90	Upper pole pinch right	2.81 (0.82)	149
Drain left	62.76 (50.5)	45	Tumescent volume (mL)	261.51 (27.63)	252*
Drain right	56.91 (34.7)	45	Tumescent volume left	261.51 (27.69)	126
Implant size (mL)	253.98 (23.11)	322*	Tumescent volume right	261.51 (27.69)	126
Implant size left	253.89 (22.76)	161	Propofol volume (mL)	164.43 (53.69)	121
Implant size right	254.08 (23.51)	161			

*Total sum of right and left cases.
APSS, anterior pull skin stretch; BBW, breast base width; BH, breast height; BMI, body mass index; C_N, clavicle to nipple; IMF, inferior mammary fold; OP, operation; SN-N, sternal notch to nipple.

Table 4. Descriptive Analysis of Categorical Variables

Variable	Group	No. of Patients (%)	Total No.	Variable	Group	No. of Patients (%)	Total No.
Reoperation	Yes	3 (1.85)	162	Asymmetry chest wall	Asymmetry	58 (39.19)	
Complication	Yes	3 (1.85)	162		Normal	90 (60.81)	148
Sex	Female	162 (100)	162	Asymmetry breast	Asymmetry	62 (41.89)	148
BMI	<18.5	39 (24.38)	160		Normal	86 (58.11)	
	≥18.5	121 (75.63)		Nipple-level discrepancy	Yes	87 (59.18)	147
Implant placement	Subglandular	119 (73.46)	162		No	60 (40.82)	
	Subpectoral	43 (26.54)		IMF-level discrepancy	Yes	78 (53.06)	147
Implant type	Smooth	286 (88.27)*	324*		No	69 (46.94)	
	Textured	38 (11.73)*		Surgery type	Augmentation	162 (100)	162
Implant type left	Smooth	143 (88.27)	162				
	Textured	19 (11.73)		Additional surgeries	Inverted nipple correction	1 (0.62)	
Implant type right	Smooth	143 (88.27)	162		Mastopexy	9 (5.56)	
	Textured	19 (11.73)		Inframammary fold	Keep	71 (48.3)	147
Breast shape	Conical	11 (7.48)	147		Lower	76 (51.7)	
	Narrow	2 (1.36)		Incision approach	Axillary	87 (55.77)	156
	Round	124 (84.35)			Inframammary	69 (44.23)	
	Tubular	1 (0.68)					
	Wide	9 (6.12)					

In nipple- and IMF-level discrepancy, Yes is more than 1.5 cm and No is less than 1.49 cm in the difference between right and left.
*Total sum of right and left cases.
BMI, body mass index; IMF, inferior mammary fold.

reoperation proportion is not statistically significant (P value = 0.3223) in the high 5 system of comparing with implant base width and breast base width. The number of patients of optimal implant placement is 102 and the number of reoperation patients is 3. The difference between Tebbetts and Adams's reoperation proportion ($\rho_0 = 0.028$) and reoperation proportion is not statistically significant (P value = 0.9327) in the high 5 system of optimal implant placement (Table 8). In total patients according to high

Table 5. Absolute Rates of Recorded Complications and Reasons for Reoperation

Variable	No. of Patients (%)
Types of complications	
No	159 (98.15)
Baker grade	
II	1 (0.62)
III	1 (0.62)
Rippling	1 (0.62)
Total	3 (1.85)
Reoperation reason	
No	159 (98.15)
Baker grade	
II	1 (0.62)
III	1 (0.62)
Size exchange	1 (0.62)
Total	3 (1.85%)

5 system, Tebbetts and Adams's reoperation proportion ($\rho_0 = 0.028$) and reoperation proportion are equal.

The difference between Tebbetts and Adams's reoperation proportion ($\rho_0 = 0.028$) and this article's reoperation proportion ($\rho_0 = 0.0185$) is not statistically significant (P value = 0.3707). So Tebbetts and Adams's reoperation proportion ($\rho_0 = 0.028$) and this article's reoperation proportion ($\rho_0 = 0.0185$) are equal.

When examining the relationship of variables and reoperation, implant type and reoperation are statistically independent (P value = 0.3675). Implant placement and reoperation are statistically independent (P value = 0.2933). BMI and reoperation are statistically independent (P value = 0.7152). Incision approach and reoperation are statistically independent (P value = 0.4295) (Table 9). Also checking the relationship of variables and complications, implant type and complications are statistically independent (P value = 0.3675). Implant placement and complications are statistically independent (P value = 0.2933). BMI and complications are statistically independent (P value = 0.0850). Incision approach and complications are statistically independent (P value = 0.4295) (Table 10). Reoperation rate and complications are not related with categorical variables (implant type, implant placement, BMI, and incision approach).

DISCUSSION

This study analyzed the comparison between Asian and Western outcomes and the features of Asian patients in primary breast augmentation.

Table 6. Analysis of Continuous Variables between Group I (BMI < 18.5) and Group II (BMI ≥ 18.5)

Variable	|t| Statistic	*P* Value	Variable	|t| Statistic	*P* Value
Age	3.28	0.0015	BMI	16.48	<0001
Body weight	9.92	<0001	Follow-up period	0.14	0.889
Height	1.47	0.1432	Lateral pinch	3.71	0.0003
OP time (minutes)	0.86	0.3963	Lateral pinch left	2.21	0.0295
APSS	6.75	<0001	Lateral pinch right	3.06	0.0028
APSS left	4.9	<0001	Middle line to nipple	3.62	0.0004
APSS right	4.62	<0001	Middle line to nipple left	2.24	0.0266
Areolar diameter (horizontal)	0.65	0.5141	Middle line to nipple right	2.68	0.0091
Areolar diameter (horizontal) left	0.4	0.6901	Medial pinch	3.76	0.0002
Areolar diameter (horizontal) right	0.52	0.602	Medial pinch left	2.72	0.0075
Areolar diameter (vertical)	0.84	0.4033	Medial pinch right	3.47	0.0007
Areolar diameter (vertical) left	1.29	0.201	Nipple to IMF (N-IMF)	2.33	0.0213
Areolar diameter (vertical) right	0.03	0.9739	Nipple to IMF (N-IMF) left	1.9	0.0615
BBW	5.65	<0001	Nipple to IMF (N-IMF) right	1.22	0.223
BBW left	6.4	<0001	Nipple to IMF (stretched)	1.2	0.2311
BBW right	2.93	0.0053	Nipple to IMF (stretched) left	0.81	0.417
BH	0.3	0.7638	Nipple to IMF(stretched) right	0.8	0.4259
BH left	0.87	0.3895	SN-N	5.97	<0001
BH right	2.08	0.0394	SN-N left	4.91	<0001
C_N	6.26	<0001	SN-N right	4.1	0.0002
C_N left	4.91	<0001	Upper pole pinch	5	<0001
C_N right	4.81	<0001	Upper pole pinch left	3.67	0.0004
Drain	0.18	0.8557	Upper pole pinch right	3	0.0032
Drain left	0.47	0.6406	Tumescent volume	0.66	0.5088
Drain right	0.95	0.3466	Tumescent volume left	0.47	0.6421
Implant base diameter	0.32	0.7499	Tumescent volume right	0.47	0.6421
Implant size	0.3	0.7624	Propofol	2.17	0.0322
Implant size left	0.19	0.8525			
Implant size right	0.24	0.811			

*P value < 0.05 is considered statistically significant in variables written in bold type.
APSS, anterior pull skin stretch; BBW, breast base width; BH, breast height; BMI, body mass index; C_N, clavicle to nipple; IMF, inferior mammary fold; OP, operation; SN-N, sternal notch to nipple.

Table 7. Analysis of Categorical Variables between BMI < 18.5 Group and BMI ≥ 18.5 Group

Variable	Chi-square Statistic	*P* Value	Variable	Chi-square Statistic	*P* Value
Reoperation	0.1331	0.7152	Asymmetry chest wall	2.0318	0.1540
Complication	2.9665	0.0850	Asymmetry breast	1.7773	0.1825
Implant placement	0.8768	0.3491	Nipple-level discrepancy	0.9906	0.6094
Implant type	1.7243	0.1891	IMF-level discrepancy	1.0011	0.6062
Implant type right	0.8621	0.3531	Inframammary fold	5.2442	0.0220
Implant type left	0.8621	0.3531	Incision approach	1.0944	0.2955
Breast shape	5.6270	0.2288			

*P value < 0.05 is considered statistically significant in variables written in bold type.

Table 8. The Z-test for Equality of Given Proportion ($\rho_0 = 0.028$) in Total Patients According to High 5 System

		No. of Patients (%)/Total	No. of Reoperation Patients (%)	*P* Value of Z-test ($\rho_0 = 0.028$)
Not over estimated volume		101 (74.26)/136	2(1.98)	0.5543
IBW ≤ BBW		121 (81.21)/149	2(1.65)	0.3223
Optimal implant placement	G	94 (76.42)/123	3(2.94)	0.9327
	P	8 (53.33)/15		

BBW, breast base width; G, subglandular; IBW, implant base width; P, subpectoral.

When this study shows the complications (1.85%) and reoperation (1.85%), Tebbetts and Adams's reoperation proportion ($\rho_0 = 0.028$) and this article's reoperation proportion ($\rho_0 = 0.0185$) are equal. Implant type, size, and incision approach were chosen in the same condition of preoperative evaluation (high 5 system). The number of patients are almost similar (this study n = 162, Tebbetts and Adams's study n = 172). The differences are surgical technique and antibiotics irrigation. This study shows blunt dissection with fingers under tumescent infiltration and single antibiotics irrigation, but Tebbetts and Adams's study shows only electrocautery dissection and triple antibiotics irrigation. The author can make the hypothesis that blunt dissection with fingers under tumescent infiltration has the same effect as electrocautery dissection and that single antibiotics irrigation is enough for the prevention of capsular contracture. For supporting the hypothesis, a large number of patients for broad research would be needed.

Reoperation rate and complications are not related with categorical variables (implant type, implant placement, BMI, and incision approach). The author thinks that the result may be caused by small number of patients, low rate of reoperation, and complications due to adequate preoperative evaluation and surgical procedure.

The average measurements and features of Asian patients in primary breast augmentation are as in the following: average age is 33.98 years (compared with 35 years in Westerners),[5] average BMI is 19.71 (compared with 21.1 in Westerners),[10] average implant size is 253.98 mL (compared with 311 mL in Westerners),[7] lowering inframammary fold in group I (BMI < 18.5) is more frequent than

Table 9. Result of Chi-square Test for Independence between Variables and Reoperation

Variable	Group	No. of Reoperation Patients (%)	No. of Patients	Chi-square Statistic	*P* Value
	Smooth	6 (2.1)*	286*		
Implant type	Textured	0 (0.0)	38	0.8122	0.3675
Implant type right	Smooth	3 (2.1)	143	0.4061	0.5239
	Textured	0 (0.0)	19		
Implant type left	Smooth	3 (2.1)	143	0.4061	0.5239
	Textured	0 (0.0)	19		
Implant placement	Subglandular	3 (2.52)	119	1.1045	0.2933
	Subpectoral	0 (0.0)	43		
BMI	<18.5	1 (2.56)	39	0.1331	0.7152
	≥18.5	2 (1.69)	121		
Incision approach	Axillary	1 (1.15)	87	0.6242	0.4295
	Inframammary	2 (3)	69		

*Total sum of right and left cases

Table 10. Result of Chi-square Test for Independence between Variables and Complications

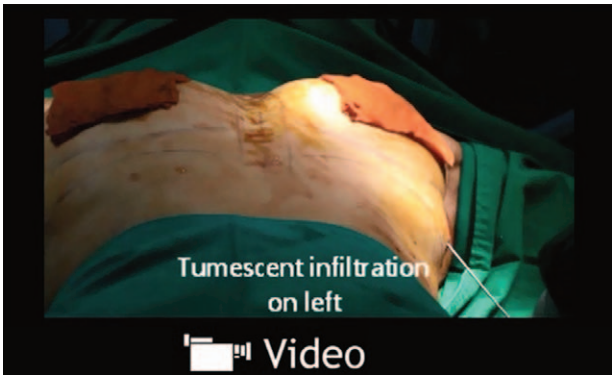
Variable	Group	No. of Complication Patients (%)	No. of Patients	Chi-square Statistic	*P* Value
Implant type	Smooth	6 (2.1)*	286*		
	Textured	0 (0.0)	38	0.8122	0.3675
Implant type right	Smooth	3 (2.1)	143	0.4061	0.5239
	Textured	0 (0.0)	19		
Implant type left	Smooth	3 (2.1)	143	0.4061	0.5239
	Textured	0 (0.0)	19		
Implant placement	Subglandular	3 (2.52)	119	1.1045	0.2933
	Subpectoral	0 (0.0)	43		
BMI	<18.5	2 (5.13)	39	2.9665	0.0850
	≥18.5	1 (0.83)	121		
Incision approach	Axillary	1 (1.15)	87	0.6242	0.4295
	Inframammary	2 (3)	69		

*Total sum of right and left cases

in group II (BMI ≥ 18.5) because group I was inclined to choose larger volume (average implant size in group I = 253.15 mL) than nipple to inframammary distance.

The strength of this study is that it represents the review of the differences and resemblances between Asian and Western outcomes in primary breast augmentation and the average measurements of Asian patients in primary breast augmentation. Also the author proposes the possibility of applying blunt dissection with fingers under tumescent infiltration and single antibiotics irrigation.

The weakness of the study is that it represents small series of Asian patients with 5-year follow-up period, 2 types of gel implant from a single manufacturer. These data cannot be used to draw conclusions about other implant types because the study methodology and parameters addressed differ from other studies.[10] Additional weakness of the study is that it represents Western outcomes by another surgeon with different surgical skills of his own and different brand of implants from different manufacturer.



Video Graphic 1. See video, Supplemental Digital Content 1, which demonstrates the surgical technique for transaxillary subpectoral breast augmentation with 286-ml, smooth type, Natrelle. This video is available in the "Related Videos" section of the Full-Text article on PRSGO.com or available at http://links.lww.com/PRSGO/A140.

CONCLUSIONS

There is no report about the differences between Asian and Western outcomes in primary breast augmentation. By comparison, the reoperation rates between Asian and Western patients are equal due to adequate preoperative evaluation and surgical procedure. The differences are found somewhat in the average measurements of age, BMI, and implant size. Reoperation rate and complications are not related with implant type, implant placement, BMI, and incision approach. The technique of the use of blunt dissection with fingers under tumescent infiltration and single antibiotics irrigation provides an alternative way to surgeons for breast augmentation.

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