Original Article

Equivalent Oncologic Outcomes of Skin-Sparing Mastectomy with Immediate Breast Reconstruction in Early Stage Breast Cancer Patients in a Single Center Study

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Objective: Skin-sparing mastectomy (SSM) is a novel operation that offers better aesthetic outcomes than conventional mastectomy (total mastectomy (TM) or modified radical mastectomy (MRM)). For oncologic safety, it is widely accepted that SSM with immediate breast reconstruction (IBR) offers no statistically significant difference in terms of locoregional recurrence and distant metastasis when performed in early stage breast cancer. The present study aimed to study the oncological safety of SSM with IBR in Tis–T2 breast cancer patients in an Asian population.

Materials and Methods: The data of breast cancer patients who underwent SSM or TM both with IBR from January 2005 to December 2013 were retrospectively reviewed. The inclusion criteria were a pathological in situ or invasive breast cancer sized <5 cm and a follow-up duration of at least 24 months. A comparison of locoregional recurrences, distant metastasis, 5-year disease-free, and overall survival rates between the two groups was performed and the results analyzed.

Results: The authors identified 291 patients (292 operations). The median follow-up times were 81 months in the TM group (n = 148) and 59 months in the SSM group (n = 144). There was no statistically significant difference in tumor characteristics or AJCC staging, except for a higher positive hormonal receptor status in the SSM group. There was no difference in the rates of locoregional recurrences, distant metastasis, 5-year disease-free, and overall survival between the two groups.

Conclusion: SSM is a good option for mastectomy because the preserved skin provides a better aesthetic outcome and there was no difference in recurrence rates between TM and SSM with IBR in breast cancer. Also, the 5-year disease-free and overall survival rates were comparable between both groups. SSM with IBR should therefore be considered an oncologically safe operation in breast cancers less than 5 cm in size.

Keywords: Breast cancer, Oncological safety, Skin sparing mastectomy, Conventional mastectomy, Immediate breast reconstruction

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Breast reconstruction post-mastectomy has been more widely practiced in the last decade. However, oncologic safety is one of the main concerns in these groups of patients. A recent meta-analysis of 139,894 patients documented the safety of mastectomy with immediate breast reconstruction (IBR) in early stage breast cancer patients with equivalent disease-free survival and overall survival rates[(1)]. Since skin-sparing mastectomy (SSM) preserves the skin envelope, it offers better aesthetic outcomes than conventional mastectomy, particularly when IBR is performed simultaneously[(2-6)]. In the present study, we evaluated the outcomes of SSM with IBR in terms of oncological safety and morbidity compared to conventional mastectomy (total mastectomy, TM) in early breast cancer patients in our center.

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Materials and Methods

The present study was approved by the Ethics Committee of the Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand, protocol number 181/2559 (EC1). All patients who underwent TM/SSM with immediate breast reconstruction, either with transverse rectus abdominis myocutaneous (TRAM) flap, lattisimus dorsi (LD) flap or implant at Siriraj Hospital from January 2005 to December 2013 were screened from the institution's electronic database.

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Patients who underwent the above procedures were identified. Only patients who had clinical T1-T2 tumors with no evidence of distant metastasis at presentation, no prior neo-adjuvant chemotherapy, or existing breast cancer with failed breast-conserving therapy were included in this study. Inclusion criteria also included pathological in situ or invasive breast cancer, mastectomy (TM or SSM with IBR), complete final pathological reports, and a follow-up duration of at least 24 months. Patients who underwent nipple-sparing mastectomy were excluded. The following patient and tumor characteristics were noted: characteristics of the patients (age and body mass index (BMI)), characteristics of the tumor (type, AJCC staging, TNM staging, hormone receptor status, HER-2 receptor status), and treatment (type of operation, type of breast reconstruction, length of hospital stay, chemotherapy, radiotherapy, hormonal therapy). The primary objective of the present study was to assess locoregional recurrences. The survival end-points were breast cancer-related locoregional recurrences.

The secondary outcome of the present study was knowledge on the morbidity of SSM with immediate breast reconstruction. Both early and late complications of reconstruction were studied. Early complications (<30 days after operation) included hematoma, superficial skin necrosis, wound dehiscence, and wound infection. Late complications included capsular contracture, fat necrosis, wound dehiscence, and implant loss. The severity of the complications was classified according to the modified Clavien-Dindo classification of surgical complications by focusing on the treatment of the complications (Table 1)[7,8]. These complications were graded into 3 groups: no complication, minor complications (grades I, II), major complications (grades III to V).

Statistical analysis

Patients were divided into 2 groups: (A) TM + IBR group (total mastectomy with immediate breast reconstruction), (B) SSM + IBR group (skin-sparing mastectomy with immediate breast reconstruction). The patients' age and body mass index were reported as averages (mean and SD) and the independent t-test was used to compare the differences between the two groups. The median follow-up time and median interval to recurrence were compared by using the Mann-Whitney U test. Other characteristics of the patients, outcomes, and complications between the groups were compared by Chi-square test. Differences with a p-value <0.05 were considered as statistically significant. Differences between the 5-year disease-free survival and 5-year disease-specific survival rates between the groups were interpreted by log-rank test and reported by Kaplan-Meier curve.

Results

From the initial screening, the authors identified 404 patients who underwent mastectomy with IBR. Of these, 11 patients had incomplete data and follow-up duration, 29 patients had locally advanced cancer, 8 patients had advanced cancer, and 25 patients had recurrent cancer and so were excluded. Of the remaining 331 patients, 34 patients underwent nipple-sparing mastectomy and 12 patients had a follow-up duration less than 24 months and so were excluded. Of the 286 patients now left, 1 patient had bilateral breast cancer, so finally, in total, 287 breasts were studied (143 in TM and 144 in SSM).

The differences between the 2 groups were comparable in terms of age, tumor stage, and breast reconstruction options (Table 2). The median follow-up times

Table 1. Clavien–Dindo classification

Grade		Definition
I		Any deviation from the normal postoperative course without the need for pharmacological treatment or surgical, endoscopic, and radiological interventions Allowed therapeutic regimens are: drugs as antiemetics, antipyretics, analgetics, diuretics, electrolytes, and physiotherapy. This grade also includes wound infec tions opened at the bedside
II		Requiring pharmacological treatment with drugs other than such allowed for grade I complications Blood transfusions and total parenteral nutrition are also included
III		Requiring surgical, endoscopic, or radiological intervention
1.	IIIa	1. Intervention not under general anesthesia
2.	IIIb	2. IIIb Intervention under general anesthesia
IV		Life-threatening complication (including CNS complications)* requiring IC/ICU management
3.	IVa	5. Single organ dysfunction (including dialysis)
4.	IVb	6. IVb Multiorgan dysfunction
V		Death of a patient
Suffix "d"		If the patient suffers from a complication at the time of discharge (see examples in Table 2), the suffix "d" (for "disability") is added to the respective grade of complication. This label indicates the need for a follow-up to fully evaluate the complication.

* Brain hemorrhage, ischemic stroke, subarrachnoidal bleeding, but excluding transient ischemic attacks.
CNS = central nervous system, IC = intermediate care, ICU = intensive care unit

Table 2. Patient characteristics, tumor characteristics, and breast reconstruction options

	TM*, n = 143	SSM*, n = 144	*p*-value
Age (years, mean ± SD)	43.9±7.2	45.5±7.5	0.060
Body mass index (kg/m^2, mean ± SD)	23.2±3.8	22.8±3.8	0.448
Tumor characteristics			
Ductal carcinoma in situ	19 (13.3%)	23 (16.0%)	0.709
Invasive ductal carcinomaI	115 (80.4%)	110 (76.4%)	
nvasive lobular carcinoma	9 (6.3%)	11 (7.6%)	
AJCC staging			
Stage 0	17 (11.9%)	25 (17.3%)	0.599
Stage IA/IB	43 (30.1%)	42 (29.2%)	
Stage IIA/IIB	65 (44.5%)	62 (43.1%)	
Stage IIIA/IIIB/IIIC	18 (12.5%)	15 (10.4%)	
pT stage			
pT0/is	17 (11.9%)	25 (17.4%)	0.247
pT1	51 (35.7%)	56 (38.9%)	
pT2	75 (52.4%)	63 (43.7%)	
pN stage			
pN0	105 (73.4%)	97 (67.4%)	0.368
pN1	20 (14%)	31 (21.5%)	
pN2	14 (9.8%)	11 (7.6%)	
pN3	4 (2.8%)	5 (3.5%)	
Estrogen receptor			
Positive	97 (67.8%)	120 (83.3%)	0.001
Negative	44 (30.8%)	21 (14.6%)	
No results	2 (1.4%)	3 (2.1%)	
Progesterone receptor			
Positive	94 (65.7%)	114 (79.1%)	0.007
Negative	47 (32.9%)	27 (18.8%)	
No results	2 (1.4%)	3 (2.1%)	
HER2 receptor			
0	33 (23.1%)	37 (25.7%)	0.065
1+	26 (18.2%)	36 (25%)	
2+	26 (18.2%)	19 (13.2%)	
3+	43 (30.1%)	25 (17.4%)	
No results	15 (10.4%)	27 (18.7)	
Chemotherapy			
Yes	100 (69.9%)	85 (59.0%)	0.054
No	43 (30.1%)	59 (41%)	
Radiotherapy			
Yes	28 (19.6%)	25 (17.4%)	0.628
No	115 (80.4%)	119 (82.6%)	
Hormonal therapy			
Yes	95 (66.4%)	114 (79.2%)	0.015
No	48 (33.6%)	30 (20.8%)	
Reconstruction			
Implant	6 (4.2%)	8 (5.6%)	0.856
LD with implant*	5 (3.5%)	6 (4.2%)	
Pedicle TRAM flap*	126 (88.1%)	126 (87.5%)	
LD flap*	6 (4.2%)	4 (2.8%)	

* TM = Total mastectomy, SSM = skin sparing mastectomy group, LD = latissimus dorsi, TRAM = transverse rectus abdominis myocutaneous

were 81 months (24 to 127 months) and 59 months (24 to 127 months) in the TM + IBR group and SSM + IBR group, respectively. The mean age was 43.9 and 45.5 ($p = 0.06$) in group (A) and (B) respectively. Majority (69.9% and 59.0%) of the study groups received chemotherapy and Minority (19.6% and 17.4%) of the study groups received external radiotherapy. Pedicle TRAM flap reconstruction acquires for 88.1% and 87.5% of IBR in group (A) and (B) follow by other less performed reconstructive options as implant, LD and LD with implant.

In terms of the outcomes, there was no statistically significant difference in the rate of locoregional recurrences

Table 3. Locoregional recurrences

	TM*, n = 143	SSM*, n = 144	*p*-value
Total locoregional recurrences	13 (9.1%)	8 (5.6%)	0.250
Local recurrences	8 (5.6%)	8 (5.6%)	0.780
Skin	2 (1.4%)	6 (4.2%)	
Chest wall	7 (4.9%)	2 (1.4%)	
5-year Disease-free survival	89.3%	89.6%	0.975
5-year Overall survival	94.5%	96.7%	0.254

*TM = Total mastectomy, SSM = skin sparing mastectomy group

(Table 3) or in the time to recurrence (Figure 1) between the two groups. The details of the patients with locoregional recurrences are shown in Table 4. In our analysis, the 5-year disease-free survival rate was 89.3% in the TM group and 89.6% in the SSM group. The 5-year overall survival rate was 94.5% and 96.7% in the TM and SSM groups, respectively (Figure 2).

In total, 68 patients (32 in TM and 36 in SSM) and 65 patients (30 in TM and 35 in SSM) developed early and late complications, respectively. These were not statistically significant when compared between the 2 groups (Table 5). The most common complications were skin necrosis (22.4 and 25.0% in in group (A) and (B) respectively) and fat necrosis (16.8 and 24.2% in in group (A) and (B) respectively) in immediate and delayed postoperative complications, respectively. According to the modified Clavien-Dindo classification, 54 patients developed minor complications and 14 patients developed major complications (Table 6). In terms of the major complications, there were no grade IV or V complications. The mean length of hospital stay of patients without immediate complications was 5.9 days and 5.7 days in the TM group and SSM group, respectively.

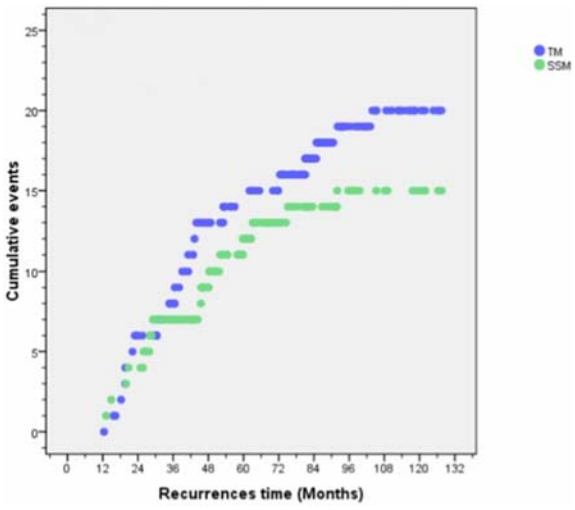


Figure 1. Cumulative events of locoregional recurrences or distant metastasis in patients. (TM = Total mastectomy, SSM = skin sparing mastectomy group).

Discussion

The idea of the minimal excision of skin in mastectomy was introduced by Toth and Lappert in 1991[9] to facilitate IBR. Since then, SSM has become an option for breast cancer patients because it offers better aesthetic outcomes, particularly with IBR. However, oncological safety of the preserved skin is a major concern, and so many studies have been conducted on this and the results have showed the SSM is safe in early breast cancer[10-20]. Also, a recent meta-analysis showed that mastectomy with IBR in early stage breast cancer patients had equivalent disease-free survival and overall survival rates for patients[1].

In present study, the authors analyzed the data of patients with early breast cancer (pT_{is}-pT2) who underwent SSM/TM with IBR. The rates of locoregional recurrences were 9.1% and 5.6% in the TM and SSM groups, respectively. The higher rate in the TM group might be due to higher favorable factors regarding a positive hormonal receptor status in the SSM group and a longer median follow-up time in the TM group (TM 81 months, SSM 59 months). However, this comparison showed no statistically significant difference between the two groups. Compared to previous studies performed on SSM[10,12-14,17,21-25] (Table 7), the rate of local recurrences in our center is comparable with previous reports (ranging from 0.5 to 8%). Also, the 5-year disease-free and 5-year overall survival rates in both groups were comparable. These results support considering SSM with IBR as an oncologically safe operation in early breast cancer patients.

In terms of morbidity, the most common early postoperative complication is superficial skin necrosis. There was no statistically significant difference between our two groups. The rates of superficial skin necrosis were 16.2% and 18.1% in the TM and SSM groups, respectively. These numbers are within the ranges reported in other studies, which were up to 30%[26-28]. There were no severe complications, flap loss, or mortality due to the reconstruction in either group. Fat necrosis was the most common late complication in both groups and the rates were close to those previously reported[27,28].

The limitation of the present study is the median follow-up of two group has 22 month period different (TM

Table 4. Characteristic of patients with locoregional recurrences

Case	Age (yr)	Mastectomy	Reconstruction*	Pathological staging	Histology	ALI*	ER*	PR*	HER2	Time to recurrence (mo)	CTx*	RTx*	Local	Regional	Status
1	46	Total mastectomy	TRAM	pT2, pN1	IDC	Y	-	-	-	84.9	FAC x 6	Y	Skin, chest wall	Axilla	Loss follow-up
2	38	Total mastectomy	LD	pT2, pN1	IDC	N	-	-	+	62.1	FAC x 6	N		Axilla	Expire
3	42	Total mastectomy	TRAM	pT2, pN2	IDC	N	-	-	-	72.4	FAC x 6	N	Breast, skin chest wall	Axilla	Alive
4	26	Total mastectomy	TRAM	pT2, pN2	IDC	Y	+	+	Equivocal	22.9	ACx4→Tx4	Y	Breast	Axilla, Supraclavicular	Expire
5	31	Total mastectomy	LD + Implant	pT2, pN0	IDC	N	+	+	+	15.6	ACx4	N	Breast		Alive
6	51	Total mastectomy	TRAM	pT2, pN0	IDC	Y	+	+	-	39.1	ACx4	N		Axilla	Alive
7	45	Total mastectomy	TRAM	pT1, pN0	IDC	N	+	+	+	22.2	-	N		Axilla	Expire
8	32	Total mastectomy	TRAM	pT1, pN0	IDC	N	+	-	-	34.7	ACx4	N	Breast	Axilla	Alive
9	48	Total mastectomy	TRAM	pT1, pN0	IDC	N	+	-	+	103.9	ACx4	N	Skin	Supra-clavicular LN	Alive
10	40	Total mastectomy	TRAM	pT2, pN0	IDC	N	+	+	Equivocal	19.7	-	N		Axilla	Alive
11	39	Total mastectomy	TRAM	pT2, pN0	IDC	N	+	-	-	41.2	-	N		Axilla	Alive
12	39	Total mastectomy	Implant	pT2, pN0	IDC	N	+	-	-	43.3	FACx6	N	Breast	Axilla	Alive
13	39	Total mastectomy	TRAM	pT1, pN0	IDC	N	+	-	-	81		N		Axilla	Alive
14	42	Skin sparing	TRAM	pT2, pN0	IDC	N	+	-	Equivocal	75.1	ACx4	N		Axilla	Alive
15	42	Skin sparing	TRAM	pT2, pN3	IDC	Y	-	+	+	20	ACx4→Tx4		Breast	Supra-clavicular	Alive
16	35	Skin sparing	TRAM	pT2, pN1	IDC	N	+	+	-	25.9	-	N		Axilla	Alive
17	45	Skin sparing	TRAM	pT2, pN0	IDC	N	+	-	+	13.2	ACx4	N		Axilla	Expire
18	45	Skin sparing	TRAM	pT1, pN0	ILC	N	+	-	-	63.2	-	N	Breast		Alive
19	43	Skin sparing	TRAM	pT1, pN0	ILC	N	+	-	Unknown	48.4	-	N	Skin	Supraclav	Alive
20	44	Skin sparing	TRAM	DCIS	DCIS	N	+	-	Unknown	14.9	-	N	Breast	Supraclav	Alive
21	37	Skin sparing	TRAM	pT1, pN0	IDC	N	+	+	-	91.9	ACx4	N		Supraclav	Alive

*LD = latissimus dorsi. TRAM = transverse rectus abdominis myocutaneous, ALI = angiolymphatic invasion, ER = estrogen receptor, PR = progesterone receptor, CTx = chemotherapy, RTx = external radiotherapy

81 months vs. SSM 59 months). This is due to the SSM + IBR was introduced as an preferred surgical option in our center around late 2000'. In recent years, nipple sparing mastectomy (NSM) with immediate breast reconstruction has proved a superior aspect in psychological and quality of life of early breast cancer patients. Lohsiriwat et al, documented a large series of (NSM) which may lead to an alternative to TM and SSM[29,30]. The skin necrotic complications which is the major category of complication should be defined and explored in order to ensure precise diagnosis, treatment and prevention. The fat necrosis as a most common delayed complication in the present study has not yet defined the optimal treatment which can be range from observation, minor correction (lipofilling) or major flap removal[31-34].

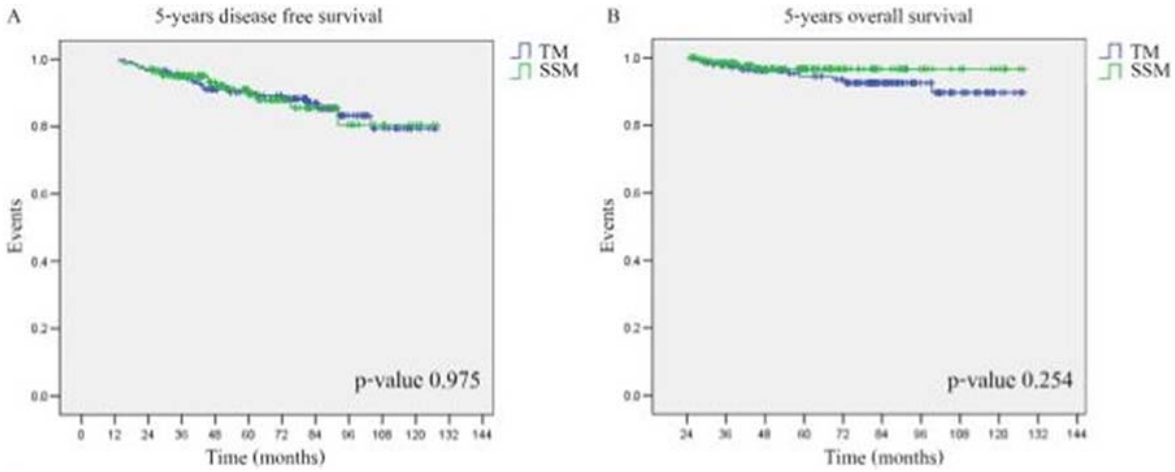
The patient factors (such as patient's comorbidity, breast and body morphology or implant models), surgeon factors (such as surgical technique and surgeon experience) and disease factors (such as biologic genetic and details adjuvant therapy) should be further investigated to discover predictive factor of local events and complications[35]. According to the results, SSM with IBR should be considered as an alternative of conventional total mastectomy with IBR without increasing morbidity in early breast cancer patients.

Conclusion

SSM with IBR is an oncologically safe operation in term of local events and 5-year disease-free survival, without increasing morbidity both immediate and delayed surgical complication in early breast cancer patients compared to conventional total mastectomy with IBR.

What is already known on this topic?

Skin sparing mastectomy is oncologically safe in early breast cancer patients when compare with conventional total mastectomy without reconstruction.



TM = Total mastectomy, SSM = skin sparing mastectomy group

Figure 2. Five-year disease-free survival (A) and five-year overall survival rates of patients (B).

Table 5. Postoperative complications at the surgical site

	TM*, n = 143	SSM*, n = 144	*p*-value
Immediate complications	32 (22.4%)	36 (25%)	0.528
Superficial skin necrosis	24 (16.8%)	26 (18.1%)	
Surgical site infection	4 (2.8%)	8 (4.9%)	
Wound dehiscence	3 (2.1%)	1 (0.7%)	
Hematoma	1 (0.7%)	1 (0.7%)	
Delayed complications	30 (21%)	35 (24.3%)	0.413
Fat necrosis	24 (16.8%)	33 (24.2%)	
Capsular contracture	3 (2.1%)	2 (14%)	
Wound dehiscence	2 (1.4%)	0	
Implant loss	1 (0.7%)	0	

* TM = Total mastectomy, SSM = skin sparing mastectomy group

Table 6. Severity of immediate complications according to Clavien–Dindo classification of surgical complications

Immediate postoperative complications	Mastectomy	Total No.	Grade							Length of hospital stay (days, mean ± SD)
			I	II	IIIa	IIIb	IVa	IVb	V	
Skin necrosis	TM	24	6	12	4	2	-	-	-	8.1±3.2
	SSM	26	4	18	3	1	-	-	-	6.7±1.6
Surgical site infection	TM	4	-	4	-	-	-	-	-	7.5±1
	SSM	8	-	8	-	-	-	-	-	6.4±1.8
Wound dehiscence	TM	3	-	-	3	-	-	-	-	6±1
	SSM	1	-	-	1	-	-	-	-	6
Hematoma	TM	1	1	-	-	-	-	-	-	8
	SSM	1	1	-	-	-	-	-	-	5
No complication	TM	116	-	-	-	-	-	-	-	5.9±1.8
	SSM	108	-	-	-	-	-	-	-	5.7±1.9

Surgical complications may vary among various type of breast reconstruction.

What is this study adds?

Skin sparing mastectomy with immediate breast reconstruction has oncological safety compare to conventional total mastectomy with immediate breast reconstruction.

Rate of early and delayed surgical complication in immediate breast reconstruction.

Potential conflicts of interest

The authors declare no conflicts of interest.

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Table 7. Analysis of the literature: recurrences of SSM

First author	Year	No. of SSM	Recurrences			Follow-up time (months)	Tumor characteristics
			Local	regional	distant		
Carlson[6]	1997	327	4.8%		16%	37.5	Prophylactic/stage 0: 42% Stage I: 24% Stage II: 26% Stage III: 6% Stage IV: 1% Others: 1%
Newman[21]	1998	372	6.2%		9%	50	T1 and T2
Slavin[12]	1998	32	4%	8%	4%	45	Tis: 51% T1: 27% T2: 22%
Kroll[11]	1999	114	7%		7.9%	72	T1: 59.7% T2: 40.3%
Simmons[14]	1999	77	3.9%		3.9%	15.6	Stage 0: 24.7% Stage I: 22.1% Stage II: 36.3% Stage III: 5.2% Unknown: 11.7%
Foster[22]	2002	25	4%		16%	49.2	Stage IIB: 48% Stage IIIA: 36% Stage IIIB: 16%
Medina-Franco[17]	2002	173	4.5%	4%	17.9%	73	T1: 58.6% T2: 37.5% T3: 2.8% T4: 0.6% Unknown: 0.5%
Carlson[23]	2003	565	5.5%		4.2%	65.4	Stage 0: 31% Stage I: 23.9% Stage II: 30.6% Stage III: 9.6% Stage IV: 1.4% Recurrences: 3.5%
Missana[24]	2013	400	3	0.5	13.5%	88	Tis: 42.5% T1: 42.5% T2: 13% T3: 2%
Park[25]	2016	78	2.6%	2.6%	7.7	65.6	T1: 64% T2: 27.5% T3: 6.9% T4: 1.6%

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ความปลอดภัยทางมะเร็งวิทยาของการผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันทีในผู้ป่วยมะเร็งเต้านมระยะเริ่มต้น

วิษณุ โล่ห์สิริวัฒน์, สุภิญญา ปรีชากุล, ศุภฤกษ์ โลหะสัมมากุล, อภิรักษ์ ช่วงสุวนิช, พรชัย โอเจริญรัตน์, สืบวงศ์ จุฑาภิสิทธิ์, อดุลย์ รัตนวิจิตราศิลป์, พงศ์เทพ พิศาลธุรกิจ, มงคล บุญศรีพิทยานนท์, ประดิษฐ รัชตามุขยนันต์, วราภรณ์ อิ่มฤทัยเจริญโชค, วราพรรณ นุ่มประสิทธ์, ดุลยพัฒน์ สงวนรักษา, ธนากร ธราพงษ์พันธ์

ภูมิหลัง: การผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที มีความสวยงามมากกว่าการผ่าตัดแบบดั้งเดิมที่ตัดเต้านมทั้งหมด สำหรับความปลอดภัยทางมะเร็งวิทยานั้น ไม่พบความแตกต่างอย่างมีความสำคัญทางสถิติ ของการกลับมาเป็นซ้ำ และการแพร่กระจายของมะเร็งเต้านม

วัตถุประสงค์: การศึกษานี้ต้องการแสดงข้อมูลความปลอดภัยทางมะเร็งวิทยา และภาวะแทรกซ้อนทางศัลยกรรมของการผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที เมื่อเปรียบเทียบกับการผ่าตัดแบบดั้งเดิมที่ตัดเต้านมทั้งหมดพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที

วัสดุและวิธีการ: ข้อมูลผู้ป่วยมะเร็งเต้านมที่ได้รับการผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที และที่ได้รับการผ่าตัดแบบดั้งเดิมที่ตัดเต้านมทั้งหมดพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที ตั้งแต่ปี พ.ศ. 2548 ถึง พ.ศ. 2556 ได้รับการสืบค้นโดยคัดเลือกผู้ป่วยมะเร็งเต้านมระยะเริ่มต้น ขนาดก้อนมะเร็งไม่เกิน 5 เซนติเมตร และได้รับการติดตามการรักษามากกว่า 24 เดือน ข้อมูลเกี่ยวกับการกลับเป็นซ้ำของมะเร็ง และอัตราการรอดชีวิตและผลแทรกซ้อนทางศัลยกรรมได้ถูกนำมาวิเคราะห์ทางสถิติ

ผลการศึกษา: มี 292 หัตถการจาก ผู้ป่วย 291 คน โดยกลุ่ม (1) ที่ได้รับการผ่าตัดแบบดั้งเดิมที่ตัดเต้านมทั้งหมดพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที กลุ่ม (2) ได้รับการผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที มีจำนวน 148 และ 144 หัตถการ โดยค่ากลางการติดตามการรักษาอยู่ที่ 81 และ 59 เดือน ตามลำดับ ค่าทางสถิติไม่มีความแตกต่างของชนิด ระยะและการรักษามะเร็งเต้านม รวมทั้งการกลับเป็นซ้ำของมะเร็ง และอัตราการรอดชีวิตและผลแทรกซ้อนทางศัลยกรรม ก็ไม่แตกต่างกัน

สรุป: การผ่าตัดเต้านมทั้งหมดแบบอนุรักษ์ผิวหนังพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที มีความปลอดภัยทางมะเร็งวิทยา และภาวะแทรกซ้อนทางศัลยกรรมไม่ต่างจากการผ่าตัดแบบดั้งเดิมที่ตัดเต้านมทั้งหมดพร้อมกับการเสริมสร้างเต้านมทั้งหมดใหม่แบบทันที ในการรักษาผู้ป่วยมะเร็งเต้านมระยะเริ่มต้น