

Supplemental Table S1. Characteristics of the included studies

Study	Author	Year	Country	Reference	Stage	NO S	Follow-up.(m)	Study type	Mean age	Mean BMI ^a (kg/m 2)	Preoperative radiotherapy
1	Manrique, O. J.et al	2020	US	[12]	DTI ^b	6	20.3	RS ^c	54.0	25.8	0
2	Mirhaidari, S. J.et al	2020	US	[13]	DTI	7	3.0-24.0	PS ^f	54.0	27.0	6
3	Banuelos,J.et al	2020	US	[14]	TSE ^c	6	17.0	RS	54.0	33.2	4
4	Wormer, B. A.et al	2019	US	[15]	TSE	5	5.6	RS	48.2	29.5	1
5	Reitsamer, R.et al	2019	US	[16]	DTI	6	36.0	PS	45.1	27.4	26
6	de Vita, R.et al	2019	Italy	[17]	DTI	6	4.0	RS	42.0	26.0	NA ^d
7	Casella, D.et al(1)	2019	Italy	[4]	DTI	7	38.0	RS	56.1	24.1	42
8	Casella, D.et al(2)	2019	Italy	[4]	TSE	7	38.0	RS	55.5	24.9	29
9	Manrique, O. J.et al	2019	US	[18]	TSE	6	17.9	RS	35.3	25.3	3
10	Gardani, M.et al	2019	Italy	[19]	-	7	15.4	RS	53.3	22.6	NA
11	Komorowska-Timek, E.et al	2019	US	[20]	TSE	5	9.6	RS	56.4	29.9	8
12	Sinnott, C. J.et al	2018	US	[21]	DTI	6	19.0	RS	52.4	29	NA
13	Baker, B. G.et al	2018	UK	[22]	DTI	6	9.2	PS	47.5	26.0	0
14	Elswick, S. M.et al	2018	US	[23]	TSE	5	28.0	RS	48.0	27.2	0
15	Bettinger, L. N.et al	2017	US	[24]	TSE	6	6.0-72.0	RS	50.9	27.5	14
16	Jones, G.et al	2017	US	[25]	DTI	5	12.0	RS	47.0	24.8	1
17	Vidya, R.et al	2017	UK	[26]	DTI	5	17.9	PS	55.8	24.4	0
18	Onesti MG.et al	2017	Italy	[27]	DTI	5	24.0	PS	55.0	25	0
19	Sigalove, S.et al	2017	US	[28]	-	5	25.1	RS	50.6	27.7	NA
20	Sbitany, H.et al	2017	US	[29]	TSE	5	11.1	PS	44.8	27.4	NA

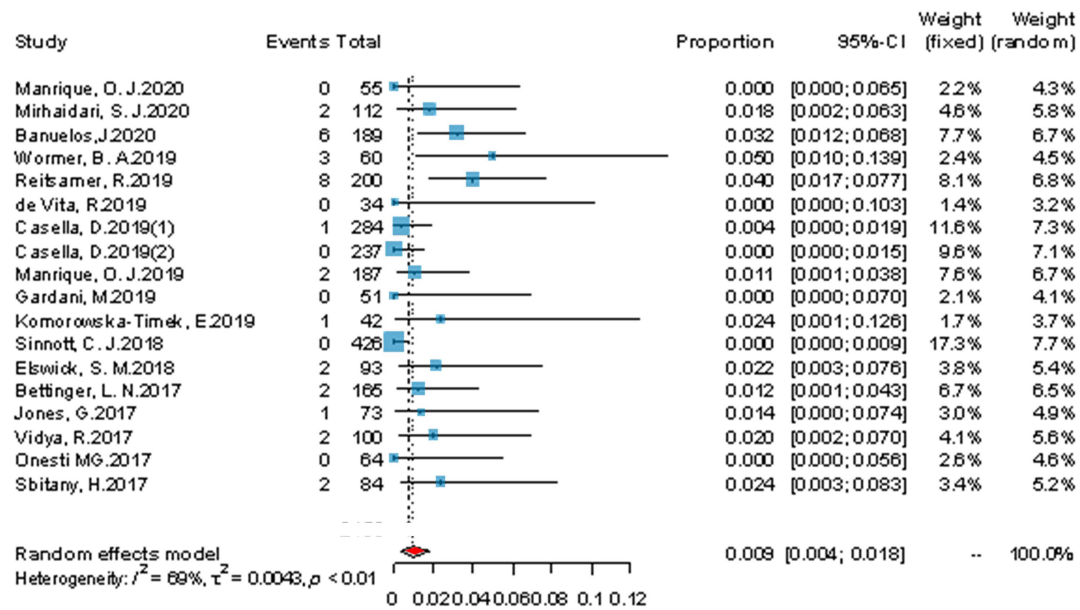
BMI: body mass index, DTI: direct to-implant, TSE:two-stages expander-assisted, NA: not available, RS: retrospective Study, PS: prospective Study.

Supplemental Table 2. Sample size and Complications

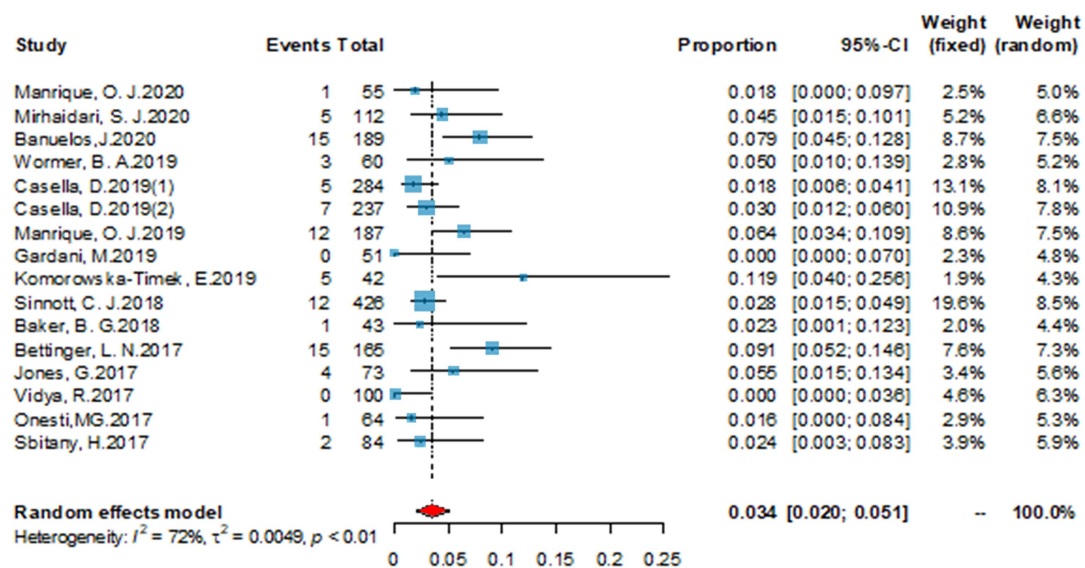
Study	Sample size		Total complications	Hematoma	Infection	Implant removal	Capsular contracture
	Breast patient						
1	55	33	4	0	1	2	0
2	112	62	22	15	5	1	NA
3	189	110	37	16	15	12	NA
4	60	32	18	8	3	3	NA
5	200	134	29	8	NA	7	NA
6	34	21	0	0	NA	0	NA
7	284	210	NA	3	5	7	10
8	237	187	NA	3	7	9	9
9	187	100	20	7	12	10	NA
10	51	42	NA	2	0	2	0
11	42	24	17	12	5	5	NA
12	426	274	NA	1	12	17	22
13	43	28	NA	1	1	2	NA
14	93	54	23	7	NA	NA	1
15	165	110	29	12	15	19	NA
16	73	50	NA	10	4	2	0
17	100	79	NA	7	0	2	NA
18	64	52	NA	0	1	2	0
19	52	33	2	1	NA	NA	NA
20	84	51	15	5	2	1	0

NA: not available

Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3

