

Online Resource 1: Patient as unit of analysis

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Complications of immediate compared to delayed deep inferior epigastric artery perforator flap breast reconstructions

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Table 1. Recipient-site complications (n = 737 patients)

	Timing of reconstruction		OR (95% CI)	p value	Adjusted OR (95% CI) ^a	Adjusted p value ^a
	Immediate	Delayed				
	(n = 291) n (%)	(n = 446) n (%)				
Major complication (≥1)	33 (11.3)	52 (11.7)	0.97 (0.61-1.54)	0.895	0.77 (0.47-1.29)	0.320
Total flap loss	6 (2.1)	13 (2.9)	0.70 (0.26-1.87)	0.477	0.46 (0.20-1.10)	0.081
Partial flap loss	13 (4.5)	25 (5.6)	0.79 (0.40-1.57)	0.496	0.72 (0.33-1.58)	0.415
Venous congestion	18 (6.2)	21 (4.7)	1.33 (0.70-2.55)	0.383	0.93 (0.47-1.85)	0.842
Minor complication (≥1)	83 (28.5)	121 (27.1)	1.07 (0.77-1.49)	0.680	1.11 (0.78-1.59)	0.552
Infection	23 (7.9)	37 (8.3)	0.95 (0.55-1.63)	0.849	1.03 (0.57-1.87)	0.922
Hematoma	34 (11.7)	17 (3.8)	3.34 (1.83-6.10)	<0.001	3.03 (1.60-5.73)	0.001
Seroma	11 (3.8)	4 (0.9)	4.34 (1.37-13.8)	0.013	4.92 (1.24-19.6)	0.024
Fat necrosis	36 (12.4)	63 (14.1)	0.86 (0.55-1.33)	0.495	0.87 (0.55-1.38)	0.554
Wound problems	31 (10.7)	77 (17.3)	0.57 (0.37-0.89)	0.014	0.62 (0.39-0.98)	0.041

^a Adjusted for unilateral vs. bilateral reconstruction, body mass index (kg/m²), smoking status (yes vs. no), radiation therapy (yes vs. no), chemotherapy (yes vs. no), endocrine therapy (yes vs. no), and university vs. community hospital.

Table 2. Subgroup analysis recipient-site complications of breast cancer patients only (n = 664 patients)

	Timing of reconstruction		OR (95% CI)	p value	Adjusted OR (95% CI) ^a	Adjusted p value ^a
	Immediate	Delayed				
	(n = 234) n (%)	(n = 430) n (%)				
Major complication (≥1)	21 (9.0)	48 (11.2)	0.79 (0.46-1.35)	0.378	0.73 (0.41-1.30)	0.279
Total flap loss	2 (0.9)	12 (2.8)	0.30 (0.07-1.35)	0.117	0.25 (0.06-1.16)	0.076
Partial flap loss	8 (3.4)	24 (5.6)	0.60 (0.27-1.36)	0.218	0.56 (0.22-1.41)	0.219
Venous congestion	12 (5.1)	19 (4.4)	1.17 (0.56-2.45)	0.679	1.07 (0.51-2.23)	0.865
Minor complication (≥1)	65 (27.8)	114 (26.5)	1.07 (0.75-1.52)	0.725	1.19 (0.81-1.73)	0.375
Infection	19 (8.1)	36 (8.4)	0.97 (0.54-1.73)	0.910	1.09 (0.59-2.02)	0.786
Hematoma	29 (12.4)	14 (3.3)	4.20 (2.17-8.13)	<0.001	3.97 (2.03-7.76)	<0.001
Seroma	7 (3.0)	3 (0.7)	4.39 (1.12-17.1)	0.033	7.97 (1.93-32.8)	0.004
Fat necrosis	28 (12.0)	61 (14.2)	0.82 (0.51-1.33)	0.423	0.87 (0.53-1.43)	0.594
Wound problems	21 (9.0)	74 (17.2)	0.47 (0.28-0.79)	0.004	0.55 (0.33-0.93)	0.025

^a Adjusted for unilateral vs. bilateral reconstruction, body mass index (kg/m²), smoking status (yes vs. no), radiation therapy (yes vs. no), chemotherapy (yes vs. no), endocrine therapy (yes vs. no), and university vs. community hospital.

Table 3. Flap re-explorations (n = 737 patients)

	Timing of reconstruction		p value
	Immediate (n = 291) n (%)	Delayed (n = 446) n (%)	
Re-exploration	28 (9.6)	37 (8.3)	0.535
Reanastomosis	19 (6.5)	20 (4.5)	0.228
Reason re-exploration			
Arterial insufficiency	4 (1.4)	11 (2.5)	0.305
Venous insufficiency	19 (6.5)	20 (4.5)	0.225
Hematoma	7 (2.4)	6 (1.3)	0.285
Kinking	4 (1.4)	5 (1.1)	0.745 ^a
Infection	0 (0)	1 (0.2)	1.000 ^a
Other	1 (0.3)	2 (0.4)	1.000 ^a
Result re-exploration ^b			
Viable flap	20 (71.5)	21 (56.8)	0.225
Partial flap loss	2 (7.1)	8 (21.6)	0.167 ^a
Total flap loss	6 (21.4)	8 (21.6)	0.985

^a Fisher's Exact test was used.
^b As a percentage of the total flaps that required re-exploration (immediate group: n = 28; delayed group: n = 37).