

Table 1. Clinicopathological features of patients and outcomes of patients undergoing breast-conserving therapy, with or without frozen section

Factors	Without frozen section n=41	With frozen section n=145	P value
Age (IQR), years ^a	57 (53–64)	57 (49–63.5)	0.207
Multifocality (%)	4 (9.8)	7 (4.8)	0.238
Tumour maximal diameter (IQR), cm ^a	2.0 (1.5–3.0)	2.0 (1.3–2.5)	0.171
T stage (p-staging) (%)			0.060
T0 (pathological complete response)	0	2 (1.4)	
Tis	7 (17.1)	16 (11.0)	
T1	14 (34.1)	68 (46.9)	
T2	15 (36.6)	56 (38.6)	
T3	1 (2.4)	1 (0.7)	
T4	4 (9.8)	2 (1.4)	
N stage (p-staging) (%)			0.508
N0	35 (85.4)	111 (76.6)	
N1	3 (7.3)	27 (18.6)	
N2	2 (4.9)	5 (3.4)	
N3	1 (2.4)	2 (1.4)	
Type of surgery (%)			0.717
Wide local excision	33 (80.5)	108 (76.8)	
Hookwire localisation	4 (9.8)	20 (13.8)	
ROLL and excision	4 (9.8)	17 (11.7)	
Histology (%)			0.179
Invasive ductal carcinoma	33 (80.4)	123 (84.8)	
Invasive lobular carcinoma	1 (2.4)	6 (4.1)	
Ductal carcinoma in situ	7 (17.1)	16 (11.0)	
Grade (%)			0.994
Low	5 (12.2)	17 (11.7)	
Intermediate	14 (34.1)	49 (33.8)	
High	22 (53.7)	79 (54.5)	
Operative duration (IQR), min ^a	110.0 (80.0–125.5)	115.0 (91.5–155.0)	0.016*
Neoadjuvant therapy	1 (2.4)	11 (7.6)	0.236
Outcomes	Without frozen section n=46	With frozen section n=147	P value
Positive intraoperative frozen section with re-excision till negative margins (%)	NA	31 (21.4)	NA
Final margin involved (%)	11 (26.8)	19 (13.1)	0.035*
Indeterminate margin rate	NA	10.3%	NA
Re-operation rate (%)	8 (19.5)	13 (9.0)	0.060
Re-excision (%)	5 (12.2)	8 (5.5)	0.965
Conversion to mastectomy (%)	3 (7.3)	5 (3.4)	0.965
Multivariate logistic regression analysis for factors associated with positive final margins			
Factors	Odds ratio	Confidence interval	P value
Frozen section	0.37	0.16–0.89	0.026*
Multifocality	1.16	0.23–5.95	0.855
Neoadjuvant chemotherapy	1.21	0.24–6.04	0.819
Tumour >2cm	1.27	0.56–2.88	0.576
Nodal involvement	2.27	0.91–5.64	0.079
Ductal carcinoma in situ	1.45	0.41–5.11	0.563

IQR: interquartile range; NA: not applicable; ROLL: radioguided occult lesion localisation

* $P < 0.05$ is statistically significant

^aAge, tumour maximal diameter and operative duration are measured in median