

Supplementary Table 1: Check for imbalance in TLE3 assessment status by treatment and stratification factors.

Variable	Category	All patients (n=2104)	TLE3	Non-TLE3	P value <sup>1</sup>
Visual IHC					
Treatment	EC/T	701	317 (45.2%)	384 (54.8%)	0.116
	CEF	701	340 (48.5%)	361 (51.5%)	
	AC/T	702	302 (43.0%)	400 (57%)	
Surgery	Total Mastectomy	1031	463 (44.9%)	568 (55.1%)	0.544
	Partial Mastectomy	1073	496 (46.2%)	577 (53.8%)	
Nodes	>10	139	61 (43.9%)	78 (56.1%)	0.089
	4-10	458	203 (44.3%)	255 (55.7%)	
	1-3	917	400 (43.6%)	517 (56.4%)	
	0	590	295 (50.0%)	295 (50.0%)	
ER status	Positive	1240	566 (45.6%)	674 (54.4%)	0.943
	Negative	864	393 (45.5%)	471 (54.5%)	
ARIOL Image analysis					
Treatment	EC/T	701	345 (49.2%)	356 (50.8%)	0.076
	CEF	701	366 (52.2%)	335 (47.8%)	
	AC/T	702	324 (46.2%)	378 (53.8%)	
Surgery	Total Mastectomy	1031	498 (48.3%)	533 (51.7%)	0.424
	Partial Mastectomy	1073	537 (50.0%)	536 (50.0%)	
Nodes	>10	139	64 (46.0%)	75 (54.0%)	0.115
	4-10	458	219 (47.8%)	239 (52.2%)	
	1-3	917	437 (47.7%)	480 (52.3%)	
	0	590	315 (53.4%)	275 (46.6%)	
ER status	Positive	1240	602 (48.5%)	638 (51.5%)	0.479
	Negative	864	433 (50.1%)	431 (49.9%)	

<sup>1</sup>P-value based on exact Fisher test.