

**S4 Table.** Comparison of clinical features between patients who didn't receive neoadjuvant therapy with detectable and undetectable MRD

Clinical feature	Detectable MRD	Undetectable MRD	p-value
<b>No.</b>	8	29	
<b>Age (yr)<sup>a)</sup></b>			0.837
Mean ± SEM	46.25±2.024	46.97±1.717	
<b>Stage (AJCC 8)</b>			0.012
I	1 (12.5)	11 (37.9)	
II	2 (25.0)	13 (44.8)	
III	5 (62.5)	2 (6.9)	
Unknown	0	3 (10.3)	
<b>Tumor size</b>			0.015
T1	1 (12.5)	13 (44.8)	
T2	4 (50.0)	13 (44.8)	
T3	2 (25.0)	0	
T4	1 (12.5)	0	
Unknown	0	3 (10.3)	
<b>Node</b>			0.032
N0	3 (37.5)	17 (58.6)	
N1	1 (12.5)	7 (24.1)	
N2	0	1 (3.4)	
N3	4 (50.0)	1 (3.4)	
Unknown	0	3 (10.3)	
<b>Molecular type</b>			0.307
HR+HER-	2 (25.0)	14 (48.3)	
HER2+	4 (50.0)	12 (41.4)	
TNBC	2 (25.0)	3 (10.3)	
<b>Clinical risk</b>			0.178
High	5 (62.5)	8 (27.6)	
Median	2 (25.0)	15 (51.7)	
Low	0	4 (13.8)	
Unknown	1 (12.5)	2 (6.9)	

Values are presented as number (%) unless otherwise indicated. Fisher's exact test and T-test were used for categorical variables and for continuous variables, respectively. p-values shown reflect a comparison between patients with detectable molecular residual disease (MRD) and patients with undetectable MRD.  $p < 0.05$  were considered significant. AJCC, American Joint Committee on Cancer; HER2, human epidermal growth factor receptor 2; HR, hormone receptor; MRD, molecular residual disease; TNBC, triple-negative breast cancer. <sup>a)</sup>Data meet the normal distribution and the data are described by the mean±standard error of the mean (SEM).