

**Supplementary Table 1.** Clinical characteristics related to the survival in patients underwent mastectomy with HER2-positive DCIS

Characteristic	Survival group	Death group	P-value
No. of patients	910	20	
Age (yr)	48.09 ± 10.08 (n = 910)	53.20 ± 13.74 (n = 20)	0.114
Height (cm) <sup>a)</sup>	157.89 ± 5.66 (n = 762)	158.56 ± 5.58 (n = 18)	0.623
Weight (kg) <sup>a)</sup>	56.93 ± 8.32 (n = 762)	62.33 ± 10.11 (n = 18)	0.007
Body mass index (kg/m <sup>2</sup> ) <sup>a)</sup>	22.85 ± 3.26 (n = 761)	24.78 ± 3.70 (n = 18)	0.014
Family history of breast cancer			>0.999
No	612 (67.3)	13 (65.0)	
Yes	81 (8.9)	1 (5.0)	
Missing	217 (23.8)	6 (30.0)	
Marriage			0.619
No	51 (5.6)	0 (0)	
Yes	614 (67.5)	15 (75.0)	
Missing	245 (26.9)	5 (25.0)	
Symptom of breast			0.814
No	594 (65.3)	14 (70.0)	
Yes	316 (34.7)	6 (30.0)	
Multifocality			0.493
No	546 (60)	15 (75.0)	
Yes	115 (12.6)	1 (5.0)	
Missing	249 (27.4)	4 (20.0)	
Tumor size (cm)	2.48 ± 2.45 (n = 910)	2.20 ± 2.39 (n = 20)	0.605
Nuclear grade			>0.999
I, II	359 (39.5)	8 (40.0)	
III	127 (14.0)	3 (15.0)	
Missing	424 (46.6)	9 (45.0)	
Estrogen receptor			0.576
Negative	183 (20.1)	5 (25.0)	
Positive	727 (79.9)	15 (75.0)	
Progesterone receptor			0.259
Negative	259 (28.5)	8 (40.0)	
Positive	651 (71.5)	12 (60.0)	
HER2 IHC			0.497
2+	109 (12.0)	1 (5.0)	
3+	801 (88.0)	19 (95.0)	
Ki67 (continuous) <sup>a)</sup>	9.37 ± 8.40 (n = 441)	16.50 ± 9.43 (n = 4)	0.092
Endocrine therapy			0.002
Not done	355 (39.0)	12 (60.0)	
Done	469 (51.5)	2 (10.0)	
Missing	86 (9.5)	6 (30.0)	

Values are presented as number only, mean ± standard deviation, or number (%).

HER2, human epidermal growth factor receptor 2; DCIS, ductal carcinoma *in situ*; IHC, immunohistochemistry.

<sup>a)</sup>Missing value.