

S1 Table. Clinicopathologic characteristics according to the education level in the subgroup aged ≤ 50 years and in the subgroup aged > 50 years

Characteristic	Education level (age ≤ 50 yr)			Education level (age > 50 yr)		
	Low	High	Chi-square ^{a)} p-value	Low	High	Chi-square ^{a)} p-value
Total	5,932 (15.8)	31,602 (84.2)		14,489 (54.5)	12,101 (45.5)	
Age, mean \pm SD (yr)	45.65 \pm 3.965	42.05 \pm 5.656	< 0.001	61.64 \pm 7.892	57.65 \pm 6.447	< 0.001
Tumor size (cm)						
≤ 2	2,931 (50.3)	17,549 (56.9)	< 0.001	7,740 (54.4)	7,406 (62.8)	< 0.001
> 2	2,894 (49.7)	13,275 (43.1)		6,478 (45.6)	4,381 (37.2)	
Node positivity						
No	3,458 (58.7)	19,651 (62.9)	< 0.001	9,000 (62.8)	8,071 (67.5)	< 0.001
Yes	2,428 (41.3)	11,600 (37.1)		5,324 (37.2)	3,883 (32.5)	
Stage						
I	2,121 (36.5)	13,334 (43.5)	< 0.001	5,890 (41.8)	5,839 (49.8)	< 0.001
II, III	3,686 (63.5)	17,308 (56.5)		8,209 (58.2)	5,876 (50.2)	
Hormonal receptor						
Negative	1,637 (30.7)	7,555 (25.9)	< 0.001	4,495 (34.2)	3,475 (31.0)	< 0.001
Positive	3,695 (69.3)	21,605 (74.1)		8,636 (65.8)	7,734 (69.0)	
HER2						
Negative	3,032 (73.2)	18,868 (77.7)	< 0.001	7,736 (71.8)	6,918 (72.5)	0.218
Positive	1,111 (26.8)	5,415 (22.3)		3,043 (28.2)	2,618 (27.5)	
Histologic grade						
1, 2	3,010 (62.3)	17,210 (64.5)	0.003	7,533 (62.3)	6,701 (64.4)	0.001
3	1,822 (37.7)	9,478 (35.5)		4,558 (37.7)	3,700 (35.6)	
Lymphovascular invasion						
No	2,348 (57.1)	14,720 (62.8)	< 0.001	6,948 (64.7)	6,261 (68.7)	< 0.001
Yes	1,762 (42.9)	8,727 (37.2)		3,794 (35.3)	2,857 (31.3)	
Body mass index						
≤ 25	3,723 (64.1)	24,982 (80.3)	< 0.001	7,447 (52.7)	7,950 (66.7)	< 0.001
> 25	2,083 (35.9)	6,146 (19.7)		6,696 (47.3)	3,965 (33.3)	
Operation period						
1987-2005	3,034 (51.1)	9,121 (28.9)	< 0.001	4,139 (28.6)	2,277 (18.8)	< 0.001
2006-2010	2,103 (35.5)	11,500 (36.4)		5,274 (36.4)	4,099 (33.9)	

2011-2014	795 (13.4)	10,981 (34.7)		5,076 (35.0)	5,725 (47.3)	
Operation						
Lumpectomy	2,753 (47.5)	18,373 (59.2)	< 0.001	6,814 (47.8)	7,055 (59.2)	< 0.001
Mastectomy	3,038 (52.5)	12,640 (40.8)		7,437 (52.2)	4,863 (40.8)	
Radiation therapy						
No	2,074 (40.9)	8,948 (32.1)	< 0.001	5,317 (43.5)	3,571 (33.8)	< 0.001
Yes	3,000 (59.1)	18,885 (67.9)		6,915 (56.5)	6,994 (66.2)	
Chemotherapy						
No	899 (16.8)	7,293 (25.3)	< 0.001	4,018 (31.7)	3,610 (33.0)	0.029
Yes	4,466 (83.2)	21,535 (74.7)		8,661 (68.3)	7,321 (67.0)	
Hormonal therapy						
No	1,524 (40.6)	7,719 (35.3)	< 0.001	3,955 (44.9)	3,354 (40.1)	< 0.001
Yes	2,232 (59.4)	14,170 (64.7)		4,859 (55.1)	5,017 (59.9)	

Values are presented as number (%) unless otherwise indicated. SD, standard deviation; HER2, human epidermal growth factor receptor 2. ^{a)}p-values for mean age were calculated by t test and all the other p-values were calculated by chi-square test.