

Table 1. Clinicopathologic characteristics of breast cancer subtypes

Variables	Molecular Subtyping														P value between five subtypes *,†	P value between four subtypes **,†		
	All		Five subtypes										Four subtypes					
			IHC-Luminal A		IHC- Luminal B		IHC-HER2		IHC-BLBC				IHC- QNBC/5NP				IHC-TNBC	
N=951		N=486 51.1%		N=123 12.9%		N=113 11.9%		N=139 14.6%		N=90 9.5%		N=229 24.1%						
No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)					
Age Group (years)															<0.001	<0.001		
<50	590	62.0	297	61.1	87	70.7	51	45.1	97	69.8	58	64.4	155	67.7				
≥50	361	38.0	189	38.9	36	29.3	62	54.9	42	30.2	32	35.6	74	32.3				
Family history of breast cancer															0.006	0.086		
No	916	96.3	470	96.7	121	98.4	111	98.2	126	90.6	88	97.8	214	93.4				
Yes	35	3.7	16	3.3	2	1.6	2	1.8	13	9.4	2	2.2	15	6.6				
Tumor Size															0.014	0.006		
≤ 2 cm	392	41.2	228	46.9	39	31.7	35	31.0	52	37.4	38	42.2	90	39.3				
2-5 cm	493	51.8	231	47.5	75	61.0	64	56.6	76	54.7	47	52.2	123	53.7				
> 5cm	66	6.9	27	5.6	9	7.3	14	12.4	11	7.9	5	5.6	16	7.0				
N Staging															0.178	0.014		
N0	498	52.4	246	50.6	52	42.3	63	55.8	89	64.0	48	53.3	137	59.8				
N1	247	25.9	131	27.0	40	32.5	22	19.5	31	22.3	23	25.6	54	23.6				
N2	118	12.4	64	13.2	19	15.4	13	11.5	12	8.6	10	11.1	22	9.6				
N3	88	9.2	45	9.3	12	9.8	15	13.3	7	5.0	9	10.0	16	7.0				
AJCC stage															0.014	0.008		
I	254	26.7	148	30.5	19	15.4	22	19.5	38	27.3	27	30.0	65	28.4				
II	467	49.1	221	45.5	69	56.1	57	5.04	78	56.1	42	46.7	120	52.4				
III	230	24.2	117	24.1	35	28.5	34	30.1	23	16.5	21	23.3	44	19.2				
LN involvement															0.016	0.020		
Negative	498	52.4	246	50.6	52	42.3	63	55.8	89	64.0	48	53.3	137	59.8				
Positive	453	47.6	240	49.4	71	57.7	50	44.2	50	36.0	42	46.7	92	40.2				
Nuclear Grade															<0.001	<0.001		
Low	92	9.7	67	13.8	5	4.1	3	2.7	9	6.5	8	8.8	17	7.4				
Intermediate	486	51.1	308	63.4	65	52.8	40	35.4	26	18.7	47	52.2	73	31.9				
High	373	39.2	111	22.8	53	43.1	70	61.9	104	74.8	35	38.9	139	60.7				
Histological Grade															<0.001	<0.001		
Well	100	10.5	63	13.0	10	8.1	11	9.7	8	5.8	8	8.9	16	7.0				
Moderate	597	62.8	334	68.7	76	61.8	65	57.5	71	51.1	51	56.7	122	53.3				
Poor	254	26.7	89	18.3	37	30.1	37	32.7	60	43.2	31	34.4	91	39.7				
Estrogen Receptor (ER)															<0.001	<0.001		
Negative	364	38.3	11	2.3	11	8.9	113	100.0	139	100.0	90	100.0	229	100.0				
Positive	587	61.7	475	97.7	112	91.1	0	0.0	0	0.0	0	0.0	0	0.0				

Progesterone Receptor (PR)																<0.001	<0.001
Negative	522	54.9	143	29.4	37	30.1	113	100.0	139	100.0	90	100.0	229	100.0			
Positive	429	45.1	343	70.6	86	69.9	0	0.0	0	0.0	0	0.0	0	0.0			
HER2																	
Negative	715	75.2	486	100.0	0	0.0	0	0.0	139	100.0	90	100.0	229	100.0			
Positive	236	24.8	0	0.0	123	100.0	113	100.0	0	0.0	0	0.0	0	0.0			
CK 5/6																	
Negative	820	86.2	474	97.7	123	100.0	103	91.2	30	21.6	90	100.0	120	52.4			
Positive	131	13.8	12	2.5	0	0.0	10	8.8	109	78.4	0	0.0	109	47.6			
EGFR																	
Negative	821	86.3	471	96.9	119	96.7	92	81.4	49	35.3	90	100.0	139	60.7			
Positive	130	13.7	15	3.1	4	3.3	21	18.6	90	64.7	0	0.0	90	39.3			
Histological type																	
Invasive ductal carcinoma	872	91.6	438	90.1	122	99.2	106	93.8	125	89.9	81	90.0	206	90.0			
Invasive lobular carcinoma	26	2.7	22	4.5							4	4.4	4	1.7			
Mucinous carcinoma	13	1.4	10	2.0			2	1.8			1	1.1	1	0.4			
Invasive papillary carcinoma	8	0.8	5	1.0	1	0.8			2	1.4			2	0.9			
Medullary carcinoma	10	1.1	1	0.2			1	0.9	8	5.8			8	3.5			
Metaplastic carcinoma	6	0.6	1	0.2					3	2.8	2	2.2	5	2.2			
Others	16	1.6	9	2.9			4	3.6	1	0.7	2	2.2	3	1.3			
Operation																	
BCS	359	37.7	200	41.2	40	32.5	30	26.5	58	41.7	31	34.4	89	38.9	0.048	0.038	
Mastectomy	592	62.3	286	58.8	83	67.5	83	73.5	81	58.3	59	65.6	140	61.1			
Adjuvant chemotherapy																	
Not done	155	16.3	95	19.5	20	16.3	22	19.5	10	7.2	8	8.9	18	7.9	0.004	0.002	
Done	796	83.7	391	80.5	103	83.7	91	80.5	129	92.8	82	91.1	211	92.1			
Anthracycline	292	36.7	156	39.9	40	38.8	33	36.3	34	11.6	29	35.4	63	29.9	0.101	0.114	
CMF	491	61.7	229	58.6	61	59.2	58	63.7	92	71.3	51	62.2	143	67.8			
Others	13	1.6	6	1.5	2	1.9	0	0	3	2.3	2	2.4	5	2.4			
Radiation therapy																	
Not done	503	52.9	250	51.4	73	59.3	63	55.8	69	49.6	48	53.3	117	51.1	1.0	1.0	
Done	448	47.1	236	48.6	50	40.7	50	44.2	70	50.4	42	46.7	112	48.9			

* Five subtypes are Luminal A, Luminal B, HER2+, BLBC, and QNBC

** Four subtypes are Luminal A, Luminal B, HER2+/-, and TNBC

† Chi-square test using Bonferroni's correction

IHC: immunohistochemistry