

Supplementary material – Table S2

Table S2. Demographic and clinicopathological information cancer associated, from the patients included in the study stratified by (A) body mass index (BMI), molecular subtype (MS), and (B) BMI and molecular subtype (mBMI).

(A)

	Normal weight (18.5 – 24.9 Kg/m ²)	Obese (> 30.0 Kg/m ²)	Total	p-value	Luminal A	Luminal B	Triple Negative	HER2+	Total	p-value
n (%)	32 (51.6%)	30 (48.4%)	62 (100.0%)		16 (25.8%)	16 (25.8%)	16 (25.8%)	14 (22.6%)	62 (100%)	
Age at diagnosis (Mean ± SD)	56.88 ± 11.15	58.13 ± 9.98	57.48 ± 10.53	0.480	53.44 ± 8.76	58.38 ± 9.11	57.19 ± 13.07	61.43 ± 10.06	57.48 ± 10.53	0.218
Topographic localization										
CQ	2 (6.3%)	1 (3.3%)	3 (4.8%)	0.680	0 (0.0%)	3 (18.7%)	0 (0.0%)	0 (0.0%)	3 (4.8%)	0.052
IOQ	1 (3.1%)	3 (10.0%)	4 (6.5%)		0 (0.0%)	1 (6.3%)	2 (12.5%)	1 (7.1%)	4 (6.5%)	
SOQ	13 (40.6%)	8 (26.7%)	21 (33.9%)		5 (31.2%)	1 (6.3%)	9 (56.3%)	6 (42.9%)	21 (33.9%)	
SIQ	2 (6.3%)	2 (6.7%)	4 (6.5%)		0 (0.0%)	2 (12.5%)	1 (6.3%)	1 (7.1%)	4 (6.5%)	
Multiple	12 (37.5%)	15 (50.0%)	27 (43.5%)		11 (68.8%)	8 (50.0%)	3 (18.7%)	5 (35.7%)	27 (43.5%)	
Other	2 (6.2%)	1 (3.3%)	3 (4.8%)		0 (0.0%)	1 (6.3%)	1 (6.3%)	1 (7.1%)	3 (4.8%)	
Laterality										
Right	17 (53.1%)	15 (50.0%)	32 (51.6%)	0.806	10 (62.5%)	7 (43.8%)	7 (43.8%)	8 (57.1%)	32 (51.6%)	0.632
Left	15 (46.9%)	15 (50.0%)	30 (48.4%)		6 (37.5%)	9 (56.2%)	9 (56.2%)	6 (42.9%)	30 (48.4%)	
Pathological stage										
Stage I	16 (50.0%)	20 (69.0%)	36 (59.0%)	0.321	11 (68.8%)	14 (87.5%)	6 (40.0%)	5 (35.7%)	36 (59.0%)	0.037*
Stage II	14 (43.8%)	8 (27.6%)	22 (36.1%)		5 (31.2%)	2 (12.5%)	8 (53.3%)	7 (50.0%)	22 (36.1%)	
Stage III	2 (6.2%)	1 (3.4%)	3 (4.9%)		0 (0.0%)	0 (0.0%)	1 (6.7%)	2 (14.3%)	3 (4.9%)	
Histological grade										
Grade II	17 (53.1%)	20 (66.7%)	37 (59.7%)	0.227	16 (100.0%)	16 (100.0%)	2 (12.5%)	3 (21.4%)	37 (59.7%)	<0.001*
Grade III	15 (46.9%)	10 (33.3%)	25 (40.3%)		0 (0.0%)	0 (0.0%)	14 (87.5%)	11 (78.6%)	25 (40.3%)	
Carcinoma in situ										
Presence	11 (34.4%)	13 (43.3%)	24 (38.7%)	0.469	9 (56.3%)	4 (25.0%)	5 (31.3%)	6 (42.9%)	24 (38.7%)	0.282
Size. Cm (Mean ± SD)	1.16 ± 2.02	1.55 ± 2.91	1.35 ± 2.47	0.649	1.70 ± 1.99	0.99 ± 1.95	1.61 ± 3.79	1.04 ± 1.63	1.35 ± 2.47	0.798
Extensive	9 (28.1%)	11 (36.7%)	20 (32.3%)	0.472	8 (50.0%)	4 (25.0%)	4 (25.0%)	4 (28.6%)	20 (32.3%)	0.367
Microcalcifications	14 (43.8%)	14 (46.7%)	28 (45.2%)	0.818	9 (56.3%)	9 (56.3%)	4 (25.0%)	6 (42.9%)	28 (45.2%)	0.236

Necrosis	20 (62.5%)	19 (63.3%)	39 (62.9%)	0.946	10 (62.5%)	9 (56.3%)	7 (43.8%)	13 (92.9%)	39 (62.9%)	0.042*
Invasive carcinoma										
Size. Cm (Mean ± SD)	1.94 ± 0.71	1.57 ± 0.75	1.76 ± 0.75	0.465	1.54 ± 0.34	1.58 ± 0.45	1.97 ± 0.78	1.97 ± 1.16	1.76 ± 0.75	0.197
Multifocality	7 (21.9%)	7 (23.3%)	14 (22.6%)	0.891	5 (31.3%)	3 (18.8%)	2 (12.5%)	4 (28.6%)	14 (22.6%)	0.564
Invasion	11 (34.4%)	8 (26.7%)	19 (30.6%)	0.511	5 (31.3%)	6 (37.5%)	3 (18.8%)	5 (35.7%)	19 (30.6%)	0.661
Metastatic nodes										
0	20 (62.5%)	21 (70.0%)	41 (66.2%)	0.364	9 (56.3%)	11 (68.8%)	13 (81.3%)	8 (57.1%)	41 (66.2%)	0.144
1-3	10 (31.3%)	8 (26.7%)	18 (29.0%)		7 (43.7%)	5 (31.2%)	2 (12.5%)	4 (28.6%)	18 (29.0%)	
4-9	0 (0.0%)	1 (3.3%)	1 (1.6%)		0 (0.0%)	0 (0.0%)	1 (6.2%)	0 (0.0%)	1 (1.6%)	
>10	2 (6.2%)	0 (0.0%)	2 (3.2%)		0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (14.3%)	2 (3.2%)	
Size cm (Mean ± SD) (Larger metastasis)	12.66 ± 33.16	10.23 ± 30.11	11.48 ± 31.49	0.764	18.83 ± 39.78	24.77 ± 44.26	0.54 ± 1.22	0.41 ± 0.64	11.48 ± 31.49	0.056

(B)

	Luminal A Normal weight	Luminal A Obese	Luminal B Normal weight	Luminal B Obese	Triple Negative Normal weight	Triple negative Obese	HER2+ Normal weight	HER2+ Obese	Total	p-value
n (%)	8 (12.9%)	8 (12.9%)	8 (12.9%)	8 (12.9%)	8 (12.9%)	8 (12.9%)	8 (12.9%)	6 (9.7%)	62 (100%)	
Age at diagnosis (Mean ± SD)	52.13 ± 8.71	54.75 ± 9.19	59.25 ± 10.51	57.50 ± 8.09	56.88 ± 14.93	57.50 ± 11.95	59.25 ± 10.24	64.33 ± 10.09	57.48 ± 10.53	0.604
Topographic localization										
CQ	0 (0.0%)	0 (0.0%)	2 (25.0%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (4.8%)	0.075
IOQ	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (12.5%)	0 (0.0%)	2 (25.0%)	1 (12.5%)	0 (0.0%)	4 (6.5%)	
SOQ	3 (37.5%)	2 (25.0%)	0 (0.0%)	1 (12.5%)	4 (50.0%)	5 (62.5%)	6 (75.0%)	0 (0.0%)	21 (33.9%)	
SIQ	0 (0.0%)	0 (0.0%)	1 (12.5%)	1 (12.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	4 (6.5%)	
Multiple	5 (62.5%)	6 (75.0%)	4 (50.0%)	4 (50.0%)	2 (25.0%)	1 (12.5%)	1 (12.5%)	4 (66.7%)	27 (43.5%)	
Other	0 (0.0%)	0 (0.0%)	1 (12.5%)	0 (0.0%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	3 (4.8%)	
Laterality										
Right	4 (50.0%)	6 (75.0%)	3 (37.5%)	4 (50.0%)	5 (62.5%)	2 (25.0%)	5 (62.5%)	3 (50.0%)	32 (51.6%)	0.606
Left	4 (50.0%)	2 (25.0%)	5 (62.5%)	4 (50.0%)	3 (37.5%)	6 (75.0%)	3 (37.5%)	3 (50.0%)	30 (48.4%)	
Pathological stage										
Stage I	6 (75.0%)	5 (62.5%)	6 (75.0%)	8 (100.0%)	3 (37.5%)	3 (42.9%)	1 (12.5%)	4 (66.7%)	36 (59.0%)	0.051

Stage II	2 (25.0%)	3 (37.5%)	2 (25.0%)	0 (0.0%)	5 (62.5%)	3 (42.9%)	5 (62.5%)	2 (33.3%)	22 (36.1%)	
Stage II	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (14.3%)	2 (25.0%)	0 (0.0%)	3 (4.9%)	
Histological grade										
Grade II	8 (100.0%)	8 (100.0%)	8 (100.0%)	8 (100.0%)	0 (0.0%)	2 (25.0%)	1 (12.5%)	2 (33.3%)	37 (59.7%)	<0.001*
Grade III	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (100.0%)	6 (75.0%)	7 (87.5%)	4 (66.7%)	25 (40.3%)	
Carcinoma <i>in situ</i>										
Presence	4 (50.0%)	5 (62.5%)	3 (37.5%)	1 (12.5%)	1 (12.5%)	4 (50.0%)	3 (37.5%)	3 (50.0%)	24 (38.7%)	0.357
Size. cm (Mean ± SD)	1.79 ± 2.48	1.61 ± 1.53	1.69 ± 2.52	0.30 ± 0.85	0.33 ± 0.92	2.9 ± 5.12	0.83 ± 1.73	1.33 ± 1.60	1.35 ± 2.47	0.463
Extensive	4 (50.0%)	4 (50.0%)	3 (37.5%)	1 (12.5%)	0 (0.0%)	4 (50.0%)	2 (25.0%)	2 (33.3%)	20 (32.3%)	0.253
Microcalcifications	4 (50.0%)	5 (62.5%)	6 (75.0%)	3 (37.5%)	1 (12.5%)	3 (37.5%)	3 (37.5%)	3 (50.0%)	28 (45.2%)	0.333
Necrosis	5 (62.5%)	5 (62.5%)	5 (62.5%)	4 (50.0%)	2 (25.0%)	5 (62.5%)	8 (100.0%)	5 (83.3%)	39 (62.9%)	0.126
Invasive carcinoma										
Size. cm (Mean ± SD)	1.56 ± 0.28	1.53 ± 0.40	1.74 ± 0.50	1.41 ± 0.36	2.2 ± 0.60	1.74 ± 0.92	2.25 ± 1.07	1.60 ± 1.27	1.76 ± 0.75	0.210
Multifocality	3 (37.5%)	2 (25.0%)	1 (12.5%)	2 (25.0%)	0 (0.0%)	2 (25.0%)	3 (37.5%)	1 (16.7%)	14 (22.6%)	0.656
Invasion	3 (37.5%)	2 (25.0%)	3 (37.5%)	3 (37.5%)	1 (12.5%)	2 (25.0%)	4 (50.0%)	1 (16.7%)	19 (30.6%)	0.783
Metastatic nodes										
0	5 (62.5%)	4 (50.0%)	6 (75.0%)	5 (62.5%)	7 (87.5%)	6 (75.0%)	2 (25.0%)	6 (100.0%)	41 (66.2%)	0.082
1-3	3 (37.5%)	4 (50.0%)	2 (25.0%)	3 (37.5%)	1 (12.5%)	1 (12.5%)	4 (50.0%)	0 (0,0%)	18 (29.0%)	
4-9	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	1 (12.5%)	0 (0,0%)	0 (0,0%)	1 (1.6%)	
>10	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	2 (25.0%)	0 (0,0%)	2 (3.2%)	
Size cm (Mean ± SD) (Larger metastasis)	24.93 ± 45.72	12.74 ± 34.86	24.75 ± 45.83	24.79 ± 45.81	0.24 ± 0.67	0.84 ± 1.59	0.73 ± 0.70	0.00 ± 0.00	11.48 ± 31.49	0.340

Legend: SD – Standard Deviation; CQ – Central Quadrant; IOQ – Inferior Outer Quadrant; SOQ – Superior Outer Quadrant; SIQ – Superior Inner Quadrant; Statistical significance highlighted in bold (p-value<0.05).