380 - Clinicopathological Characteristics and Treatment Patterns in Young Women with Breast Cancer at the Brazilian National Cancer Institute

Matheus Feres de Melo[1], Alexandre Boukai[1]
[1] Brazilian National Cancer Institute (INCA), Rio de Janeiro, Brazil

Background

Breast cancer in women aged 40 years or younger is typically associated with more aggressive biological behavior and unfavorable prognosis. In low- and middle-income countries, healthcare system limitations may further impact outcomes. In Brazil, data specifically characterizing this population remain scarce.

Objectives

To describe the epidemiological and clinicopathological features, and treatment patterns, among young women with breast cancer treated at a public cancer center.

Methods

This retrospective observational study included young women (aged 18-40 years) with breast cancer who were registered at the Brazilian National Cancer Institute (INCA) between October 2022 and October 2023. Data were extracted from medical records

Figure 1. Flowchart



Results

Among 1,321 patients registered at the Breast Cancer Department during the study period, 75 (5.7%) were aged ≤40 years and included in the analysis. The median age at diagnosis was 37 years, and 68% of patients were non-white. A family history of breast cancer was reported in 45.3%, and 5.3% had a family history of ovarian cancer. At the time of diagnosis, 5.3% of patients were pregnant. Invasive carcinoma of no special type was the most common histologic subtype (82.4%), followed by other subtypes (12.2%) and lobular carcinoma (5.4%).

Results

Regarding histologic grade, 4.2% of tumors were grade 1, 68.1% grade 2, and 27.8% grade 3. Clinical stage (AJCC 8th edition) at diagnosis was: stage I: 6.7%, stage II: 38.7%, stage III: 34.7%, and stage IV: 20%. T classification: T1: 8.1%, T2: 31.1%, T3: 25.7%, and T4: 35.1%. Nodal status: N0: 41.3%, N1: 37.3%, N2: 16%, and N3: 5.3%. High Ki-67 (≥20%) was observed in 87.5% of tumors. Estrogen and progesterone receptor positivity were 74.3% and 66.2%, respectively; HER2 positivity (IHC 3+ or FISH positive) was observed in 27.4%, and 17% of tumors were triple-negative.

Table 1. Clinicopathological characteristics of young women diagnosed with breast cancer at INCA

Variable	No. (%) n = 75	Variable	No. (%) n = 75	Variable	No. (%) n = 75
All Cohort	75 (100%)	**Histology**		**KI67**	
		No special type	62 (82,4%)	≥ 20%	66 (87,5%)
		Lobular	4 (5,4%)	< 20%	9 (12,5%)
		Other subtypes	9 (12,2%)		
Age (average, years)	37	**Histologic Grade**		**Estrogen Receptor**	
		G1	3 (4,2%)	Positive	56 (74,3%)
		G2	51 (68,1%)		
		G3	21 (27,8%)		
Race		**Clinical Stage (AJCC 8th ed.)**		**Progesterone Receptor**	
Non-white	51 (68%)	S. I	5 (6,7%)	Positive	50 (66,2%)
White	24 (32%)	S. II	29 (38,7%)		
		S. III	26 (34,7%)		
		S.IV	15 (20%)		
Family History		**Tumor**		**HER2**	
Breast	34 (45,3%)	T1	6 (8,1%)	Positive	21 (27,4%)
Ovarian	4 (5,3%)	T2	23 (31,1%)		
		T3	19 (25,7%)		
		T4	26 (35,1%)		
Pregnancy at the time of diagnosis	4 (5,3%)	**Nodal**		**Triple Negative**	13 (17%)
		N0	31 (41,3%)		
		N1	28 (37,3%)		
		N2	12 (16%)		
		N3	4 (5,3%)		

Legend: G- Grade; S- Stage; AJCC – American Joint Committee on Cancer;

Results

Among the 60 patients with stage I-III disease, 78.3% received neoadjuvant chemotherapy. Surgery was performed in 86.7% of patients, with 67.3% undergoing mastectomy and 32.7% breast-conserving surgery. Among those who underwent mastectomy, more than half (54.2%) did not undergo breast reconstruction. Sentinel lymph node biopsy was performed in 61.6%, and axillary dissection in 38.4%.

Table 2. Treatment – patients with stages I to III

Variable	No. (%) n = 60	Variable	No. (%) n = 60	Variable	No. (%) n = 60
Cohort		**Neoadjuvant chemoterapy**		**Adjuvant Chemoterapy**	
Stage I to III	60 (100%)	Yes	47 (78,3%)	Yes	6 (10%)
		No	13 (21,7%)	No	54 (90%)
Variable	**No. (%) n = 52**	**Variable**	**No. (%) n = 52**	**Variable**	**No. (%) n = 35**
Surgery	52 (100%)	**Axillary Approach**	52 (100%)	**Breast Reconstruction**	
Mastectomy	35 (67.3%)	Axillary dissection	20 (38.4%)	Yes	16 (45.8%)
Conserving	17 (32.7%)	SLNB	32 (61.6%)	No	19 (54.2%)

Legend: SLNB- Sentinel lymph node biopsy.

Conclusions

Young women with breast cancer treated at the Brazilian National Cancer Institute appear to present with advanced-stage disease, high-grade tumors, elevated Ki-67, and nodal involvement. Limited access to breast reconstruction was also observed. These findings highlight the need for targeted strategies to improve care delivery and outcomes for this population.

Rio de Janeiro
Brazil

matheusferesdemelo@gmail.com
dr.matheusfmelo

This presentation is the intellectual property of the author/presenter. Contact them at email address for permission to reprint and/or distribute.
© POSTER TEMPLATE BY GENIGRAPHICS® 1.800.790.4001 WWW.GENIGRAPHICS.COM