IMPACT OF BODY MASS INDEX ON THE EFFICACY AND SAFETY OF ADJUVANT ABEMACICLIB IN A REAL-WORLD BRAZILIAN COHORT OF PATIENTS WITH HIGH-RISK EARLY BREAST CANCER

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INTRODUCTION

- Adjuvant abemaciclib plus endocrine therapy (ET) has become the standard of care for patients with high-risk (HR+)/HER2-early breast cancer based on phase III trial data[1].
- However, real-world evidence in Brazilian population remains scarce.
- **OBJECTIVES:** to evaluate treatment-related toxicities, dose reductions, pathological response to neoadjuvant chemotherapy (RCB), recurrence, and disease-free survival by BMI categories in Real-World Brazilian population.

METHODS AND MATERIALS

- Retrospective, single-center cohort study conducted at a cancer center.
- Patients were stratified by BMI (kg/m²) as obese (≥30), overweight (25 ≤ BMI < 30), and non-overweight (<25)
- Included patients: **JANUARY 2021** between **JUNE 2025**

CONCLUSIONS

- In this real-world Brazilian cohort, obesity was associated with higher rates of dose reduction due to toxicity, lower pathological response to neoadjuvant chemotherapy, and larger tumors.
- Paradoxically, obese patients demonstrated longer disease-free survival, a finding consistent with the "obesity paradox" described in the literature.
- These results highlight the need for further research into the complex role of body composition in HR+/HER2- breast cancer treated with CDK4/6 inhibitors.

RESULTS

BMI	Non-overweight	Overweight	Obese	Total
N	49	54	42	146
Age (median)	45	49,5	55	48
Histologic Grade				
GH 1	10,2%	5,6%	4,8%	6,9%
GH 2	55,1%	57,4%	61,9%	57,9 %
GH 3	34,7%	35,2%	33,3%	34,5 %
Pathologic tumor size (cm)				
< 2 cm	28,6%	37%	19%	29%
2 – 5 cm	57,1%	38,9%	52,4%	49%
> 5 cm	14,3%	22,2 %	28,6%	21,4 %
Recurrences (n)	1	0	3	4

Table 1. Clinicopathologic characteristics by BMI

BMI	Non-overweight	Overweight	Obese	P value
Neoadjuvant response				
RCB – 0	6,1%	1,9%	0%	
RCB - I	2%	3,7%	0%	
RCB - II	12,2%	14,8%	9,5%	p = 0.135
RCB - III	10,2%	24,1%	19%	
Dose reduction (%)	47%	29%	72%	p = 0.075
Treatment interruption (%)	28,2%	24,1%	35,7%	p = 0.247
Time to recurrence (median days)	237	0	651	p = 0,03

Table 2. Treatment Characteristics, Therapeutic Response, and Recurrence by BMI

BMI	Non-overweight	Overweight	Obese	Total	P value
Diarrheia	69,4%	63%	71,4%	67,8%	P = 0.643
Nausea	22,4%	13 %	11,9%	15,8%	P = 0.297
Fatigue	26,5%	27,8%	23,8%	26,0%	P = 0.906
Neutropenia	10,2%	9,3%	11,9%	10,3%	P = 0.915
Anemia	10,8%	7,9%	0%	4,8%	p = 0.043
Transaminase elevation	4,1%	9,3%	7,1%	6,8%	p = 0.568

Table 3. Treatment-related toxicities according to BMI category

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