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908 – Survival implications of non-organized breast cancer screening in a Brazilian tertiary women's health center: a retrospective cohort study of 1,517 patients

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Introduction/Justification: Breast cancer is the most common malignancy among Brazilian women, and advanced-stage diagnosis remains frequent, partly due to limited access to organized screening and timely treatment. Although screening is nationally recommended, implementation is largely opportunistic, and its prognostic impact in real-world public settings warrants quantification beyond conventional survival estimates. Prognostic outcomes were compared between clinically detected and opportunistically screened breast cancers to quantify the impact of clinical stage on survival and disease-free survival expectancy.

Methods: Retrospective cohort of 1,517 women with unilateral, invasive, nonmetastatic breast cancer who underwent surgery at a tertiary public hospital in Brazil (2012–2016). Patients were classified as symptomatic (clinically detected) or asymptomatic (opportunistically screen-detected). Clinicopathological characteristics, treatments, and outcomes were compared using Chi-square, Fisher's exact, and Kruskal-Wallis tests. Overall survival and disease-free survival were analyzed using Kaplan-Meier estimates and Cox regression. Years of Life Lost (YLL) and Years of Disease-Free Life Lost (YDFL) were derived from Weibull survival models using stage I as the reference.

Results: Most patients were symptomatic at diagnosis (69.5%), and 94.3% presented with palpable tumors. Compared with asymptomatic cases, symptomatic women were younger, had more advanced clinical stage and more aggressive tumor features, and underwent mastectomy and neoadjuvant chemotherapy ($p < 0.001$) more frequently. YLL and YDFL increased progressively with advancing stage, exceeding 15 years in stage III.

Conclusion: In this public Brazilian cohort, opportunistic screening detected a minority of cases, while symptomatic presentation predominated and was associated with more advanced-stage and intensive treatment. Advanced-stage disease translated into substantial loss of lifetime and disease-free years, reinforcing the prognostic value of early-stage detection.

Ethics: Research Ethics Committee Approval (CAAE 84450518.9.0000.5404).

Keywords: breast cancer; clinical diagnosis; screening; mammography; life expectancy.