

Breast Cancers: Epidemiological and Clinical Characteristics and Factors Associated with Late Diagnosis in Mali

Adégné Togo *

Department of General Surgery, Gabriel Touré University Hospital, Bamako, Mali
 Université Paris Cité and Université Sorbonne Paris Nord, IRD, Inserm, Ceped, F-75006 Paris, France

Clémence Schantz

Université Paris Cité and Université Sorbonne Paris Nord, IRD, Inserm, Ceped, F-75006 Paris, France

Hamidou Niangaly

National Institute of Public Health, Bamako, Mali

Julie Robin

Université Paris Cité and Université Sorbonne Paris Nord, IRD, Inserm, Ceped, F-75006 Paris, France

Joseph Larmarange

Université Paris Cité and Université Sorbonne Paris Nord, IRD, Inserm, Ceped, F-75006 Paris, France

Abstract

Objectives: The objective was to determine the proportion of breast cancer diagnosed late and to identify the factors associated with this diagnosis.

Methods: A prospective study was conducted in four hospitals in Bamako, Mali, as part of the SENOVIE project. Between 2023 and 2024, we recruited 275 women with histologically confirmed breast cancer. This cohort was followed for 24 months. Data collected included sociodemographic and clinical variables. The stage at diagnosis was determined using the cTNM classification. Late diagnosis was defined as stage III or IV according to the Union for Cancer Control and Prevention classification. Descriptive, univariate, and bivariate analyses, as well as logistic regression, were performed using R software to identify independent associated factors.

Results: Of the 275 women diagnosed with breast cancer, 61 (23%) had metastatic disease and 221 (80.3%) had advanced stage III or IV disease. The time between the first symptom and diagnosis was greater than 6 months in 94 cases (34.3%).

In the univariate analysis, factors associated with the diagnosis of early, non-metastatic forms were: having a secondary or higher level of education, having health insurance, residing in the capital, being overweight, and having a monthly income ($p \leq 0.05$). As a clinical sign, bloody nipple discharge was observed more frequently in advanced localized forms ($p \leq 0.05$).

After logistic regression, being overweight, calculated using a lower body mass index, was associated with early diagnosis (OR = 0.29 [0.11-0.72]).

Conclusion: Breast cancer is diagnosed late in more than 80% of women in Mali. Factors associated with this delay were body mass index, low educational level, being a housewife without income, and living in a rural area.

Keywords

Breast cancer, Late diagnosis, Associated factors.