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Clinicopathological profile, therapeutic management and 5-year survival of patients with HER2-positive breast cancer at Douala General Hospital

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ABSTRACT

Background: HER2-positive breast cancer is an aggressive subtype associated with a high risk of progression and mortality. In Cameroon, its prognosis is influenced by late diagnosis and limited access to targeted therapies. This study aimed to describe the clinicopathological profile, therapeutic management and five-year survival of patients with HER2-positive breast cancer at Douala General Hospital.

Methods: We conducted a hospital-based, observational, retrospective cohort study with descriptive and analytical components from January 2021 to December 2025 at Douala

General Hospital. A total of 260 patients with HER2-positive breast cancer were included, and sociodemographic, clinicopathological, therapeutic and outcome data were collected from medical records. Overall survival was assessed over five years, and predictors of mortality were investigated using Cox regression.

Results: The mean age of the patients was 45.36 ± 10.91 years, and the 18-44-year age group was the most represented (52.3%). Cancer was mainly discovered following a breast lump (86.9%). Stage III disease was the most frequent (58.5%), followed by stage IV disease (28.1%). Invasive ductal carcinoma accounted for 91.9% of cancer cases. Neoadjuvant or adjuvant chemotherapy was performed in 76.5% of patients, while targeted therapies were administered in 43.5%. The mortality rate was 33.8%. Overall survival gradually decreased to approximately 36% in 2025. The independent predictors of mortality were unmarried status (aHR = 0.44; p = 0.012), presence of comorbidities (aHR = 0.42; p = 0.019), metastases at diagnosis (aHR = 1.97; p = 0.046), breast surgery (aHR = 2.30; p = 0.008) and radiotherapy (AHR = 2.60; p = 0.017).

Conclusion: HER2-positive breast cancer mainly affected young women, with a predominance of locally advanced and metastatic forms. The mortality rate was high, and the overall survival rate decreased by half after five years.

Keywords: breast cancer, HER2-positive, overall survival, mortality, predictors, Douala.

1. Introduction

Breast cancer is one of the most common cancers among women and remains a major cause of mortality worldwide [1,2]. Its burden is particularly high in low- and middle-income countries, where diagnosis is often delayed and access to specialised investigations and modern treatments remains limited [3,4]. In sub-Saharan Africa, breast cancer-related mortality is high, mainly because of delays in consultation, insufficient early screening, limited access to immunohistochemistry, radiotherapy and complete systemic treatments [5,6]. In Cameroon, breast cancer also represents a major public health problem, with a substantial proportion of patients diagnosed at locally advanced or metastatic stages [7].

Breast cancer is a heterogeneous disease whose prognosis varies according to clinical, histological and molecular characteristics. Among the different subtypes, HER2-positive breast cancer has a particular place. It is defined by overexpression of the HER2 protein or amplification of the ERBB2 gene and accounts for approximately 15-20% of breast cancers [8,9]. Before the introduction of targeted therapies, this subtype was generally associated with a more aggressive course, with a high risk of recurrence, metastasis and death. The introduction of trastuzumab, followed by pertuzumab, trastuzumab emtansine and trastuzumab deruxtecan, has profoundly improved the prognosis of patients in countries where these treatments are available [10-13].

However, the benefits of these therapeutic innovations remain unevenly accessible. In resource-limited settings, the management of HER2-positive breast cancer is often hindered by the high cost of anti-HER2 therapies, irregular access to diagnostic tests, treatment delays and loss to follow-up [14]. These constraints may influence treatment response, overall survival and factors associated with mortality. It is therefore necessary to produce local data to better understand patient profiles, the treatments actually received and patient outcomes.

Specific data on HER2-positive breast cancer are scarce in Cameroon, particularly regarding medium-term survival and predictors of mortality. Therefore, this study aimed to describe the clinicopathological profile, therapeutic management and five-year survival of patients with HER2-positive breast cancer followed at Douala General Hospital, and to identify predictors of mortality in this population.

2. Methods

2.1. Study type, setting and period

We conducted a hospital-based, observational, retrospective cohort study with descriptive and analytical components. The study was carried out in the Medical Oncology Department of Douala General Hospital, Cameroon. This hospital is a referral health facility with a medical oncology department, a radiotherapy department and a weekly multidisciplinary tumour board involving medical oncologists, radiation oncologists, surgeons, obstetrician-gynaecologists, radiologists and other relevant specialists. The study covered the records of patients followed for HER2-positive breast cancer, with an analysis of overall survival over five years, from January 2021 to December 2025 at Douala General Hospital. Data were collected retrospectively from medical records, oncology department registers, histopathology and immunohistochemistry reports, and treatment records.

2.2. Study population

The target population consisted of all patients followed for HER2-positive breast cancer. The source population included patients managed in the Medical Oncology Department of Douala General Hospital during the study period.

All patients with a histological diagnosis of breast cancer and confirmation of HER2-positive status by immunohistochemistry, defined as HER2 3+, or HER2 2+ confirmed positive by in situ hybridisation when this information was available, and who received specific management were included. Patients who had received no specific treatment, those whose HER2 status was not confirmed, and those with missing essential data for survival analysis were excluded.

Recruitment was consecutive and non-probabilistic. All patients meeting the eligibility criteria during the study period were retained in order to limit selection bias.

2.3. Study variables

The variables collected were grouped into four categories. Sociodemographic data included age, marital status, occupation, educational level, place of residence and region of origin; clinicopathological data included medical history, circumstance of discovery, affected breast, number of nodules, cancer stage, histological type, histological grade, molecular profile, HER2 status, presence of metastases at diagnosis, number of metastatic sites and reported metastatic sites; therapeutic data concerned neoadjuvant or adjuvant chemotherapy, treatment regimens used, anti-HER2 targeted therapy, trastuzumab, pertuzumab, lapatinib, breast surgery, radiotherapy, hormone therapy and palliative chemotherapy; outcome data included treatment response, recurrence, type of recurrence, site of recurrence, vital status and date of death.

The primary outcome variable was mortality. Overall survival was defined as the time from the date of diagnosis of HER2-positive breast cancer to the date of death, or to the date of last contact for patients censored alive.

2.4. Data collection and management

Data were collected using a pre-established data collection form that had been tested before use. Information was extracted retrospectively from medical records, oncology registers, histopathology and immunohistochemistry results, imaging reports, treatment files and available follow-up data.

To reduce information bias, inconsistent data were checked against available sources. Missing or unreported variables were considered missing data and presented as such when necessary. No statistical imputation was performed for missing data.

2.5. Statistical analysis

Data were entered, cleaned and then analysed using R software. Qualitative variables were described as frequencies and percentages. Quantitative variables were described as mean and standard deviation when normally distributed, or as median and interquartile range when the distribution was skewed. Overall survival was estimated using the Kaplan-Meier method. Predictors of mortality were investigated using a Cox model. A univariate analysis was first performed to estimate crude hazard ratios, followed by a multivariable analysis to identify factors independently associated with mortality. Results were presented as crude and adjusted hazard ratios with their 95% confidence intervals. The threshold for statistical significance was set at $P < 0.05$.

2.6. Ethical considerations

The study was conducted after obtaining the necessary administrative authorizations from the Medical Directorate of Douala General Hospital (N°962 AR/MINSANTE/HGD/DM/25) and institutional ethical committee for research on human health of the University of Douala, Cameroon (N° 5532-CEI-Udo). Data confidentiality was ensured through anonymisation of the data collection forms and the exclusive use of information for scientific purposes. No nominative information that could identify patients was used in the analysis or presentation of the results.

3. Results

3.1. Sociodemographic data

The mean age of the patients was 45.36 ± 10.91 years, with extremes ranging from 26 to 69 years. The most represented age group was 18-44 years (52.3%). Most patients were married (62.3%), housewives (38.5%), lived in urban areas (91.5%), had secondary education (70.7%) and came from the West Region of Cameroon (56.5%) (Table 1).

Table 1: Distribution of patients according to sociodemographic data

Sociodemographic data	Frequency (N = 260)	Percentage (%)
Mean age ± SD	45.36 ± 10.91	
Median age [Q1 - Q3]	44 [37 - 53]	
Extreme values [min - max]	[26 - 69]	
WHO age groups		
18–44 years	136	52.3
45–59 years	87	33.5
60–74 years	33	12.7
Marital status		
Married	162	62.3
Single	82	31.5
Widow	16	6.2
Occupation		
Housewife	100	38.5
Civil servant	57	21.9
Informal private sector	39	15.0
Formal private sector	18	6.9
Retired	13	5.0
Secretary	4	1.5
Unemployed	4	1.5
Pupil	4	1.5
Student	4	1.5
Farmer	4	1.5
Residence		
Urban	238	91.5
Rural	13	5.0
Region of origin		
West	147	56.5
Littoral	57	21.9
South-West	26	10.0
South	9	3.5
North	9	3.5
Centre	4	1.5
Equatorial Guinea	4	1.5
Not reported	4	1.5
Educational level		
Secondary	184	70.7
Higher education	76	29.3

3.2. Clinicopathological presentation

Most cancers were discovered following a breast lump (86.9%; n = 226), and most patients had one nodule (81.9%). The left breast was the most frequently affected (51.5%). Stage III disease was the most common (58.5%). The predominant histological type was invasive ductal carcinoma (91.9%) (Table 2).

Table 2: Clinicopathological features of HER2-positive breast cancer

Variables	Frequency (N = 260)	Percentage (%)
Circumstance of discovery		
Breast lump	226	86.9
Nipple discharge	9	3.5
Breast induration	5	1.9
Breast itching	4	1.5
Breast swelling	4	1.5
Breast pain	4	1.5
Breast lesion	4	1.5
Affected breast		
Left	134	51.5
Right	117	45.0
Bilateral	9	3.5
Number of nodules		
0	4	1.5
1	213	81.9
2	22	8.5
3	13	5.0
4	4	1.5
5	4	1.5
Cancer stage		
Stage II	35	13.5
Stage III	152	58.5
Stage IV	73	28.1
Histological type		
Invasive ductal carcinoma	239	91.9
Other histological types	21	8.1
Molecular profile		
HER2-positive	169	65.0
Luminal B HER2-positive	87	33.5
HER2 status		
3+	225	86.5
2+	35	13.5
Histological grade		
Grade I	17	6.5

Grade II	100	38.5
Grade III	78	30.0
Metastasis at diagnosis		
Yes	78	30.0
No	182	70.0
Number of metastatic sites		
0 site	158	60.8
1 site	79	30.4
≥2 sites	23	8.8
Reported metastatic sites		
Lymph node	43	16.5
Liver	30	11.5
Lung	26	10.0
Bone	17	6.5
Brain	9	3.5
Peritoneal	4	1.5

3.3. Therapeutic management

Therapeutic management was mainly based on neoadjuvant/adjuvant chemotherapy, performed in 199 patients, representing 76.5%. AC60 was used in 143 patients (55%), and paclitaxel in 130 patients (50%). Targeted therapies were reported in 113 patients (43.5%). Breast surgery was performed in 130 patients (50%) (Table 3).

Table 3: Therapeutic management

Variables	Frequency (N = 260)	Percentage (%)
Neoadjuvant/adjuvant chemotherapy		
Yes	199	76.5
No	61	23.5
AC60		
Yes	143	55.0
No	117	45.0
Paclitaxel		
Yes	130	50.0
No	130	50.0
Docetaxel		
Yes	35	13.5
No	225	86.5
FAC		
Yes	35	13.5
No	225	86.5
FEC100		
Yes	13	5.0
No	247	95.0

First-line trastuzumab		
Yes	69	26.5
No	191	73.5
Breast surgery		
Yes	130	50.0
No	108	41.5
Metastasis surgery		
Yes	4	1.5
No	234	90.0
Radiotherapy		
Yes	65	25.0
No	195	75.0
Secondary adjuvant chemotherapy		
Yes	61	23.5
No	199	76.5
Targeted therapies		
Yes	113	43.5
No	143	55.0
Targeted trastuzumab		
Yes	104	40.0
No	152	58.5
Pertuzumab		
Yes	9	3.5
No	247	95.0
Lapatinib		
Yes	13	5.0
No	243	93.5
Hormone therapy		
Yes	52	20.0
No	208	80.0
Palliative chemotherapy		
Yes	65	25.0
No	195	75.0
Surgical modality		
Mastectomy with axillary dissection	100	38.5
Primary mastectomy with axillary dissection	13	5.0
Primary mastectomy	9	3.5
Lumpectomy	4	1.5

FEC100: 5-fluorouracil + epirubicin 100 mg/m² + cyclophosphamide;

FAC: 5-fluorouracil + doxorubicin + cyclophosphamide;

AC60: doxorubicin 60 mg/m² + cyclophosphamide

3.4. Patient outcomes

The mortality rate was 33.8% (n = 88). Complete response was observed in 83 patients (31.9%). The recurrence rate was 6.5%, and these recurrences were mainly metastatic and locoregional (3.5%). The most frequent recurrence site was the lung (3.5%). Most patients had a complete therapeutic response (31.9%), followed by partial response (16.5%) and progression (8.5%) (Table 4).

Table 4: Clinical outcome and vital status of patients

Variables	Frequency (N = 260)	Percentage (%)
Vital status		
Alive	172	66.2
Deceased	88	33.8
Recurrence		
Yes	17	6.5
No	17	6.5
Type of recurrence		
Metastatic	9	3.5
Locoregional	9	3.5
Site of recurrence		
Lung	9	3.5
Breast and lymph node	4	1.5
Contralateral breast	4	1.5
Not reported	243	93.5
Overall treatment response		
Complete response	83	31.9
Partial response	43	16.5
Stable disease	13	5.0
Progression	22	8.5
Brain progression	9	3.5
Liver progression	9	3.5
Lung progression	4	1.5
Bone progression	4	1.5
Metastatic progression	4	1.5
Minor partial response	4	1.5
Major partial response	4	1.5

3.5. Five-year survival data (January 2021-December 2025)

- **Overall survival**

The overall survival curve showed a progressive decrease in the probability of survival during follow-up. Survival decreased approximately to 94% in 2021, 84% in 2022, 73% in 2023, 62% in 2024 and 36% in 2025. The number of patients at risk also decreased over time, from 260 at the beginning of follow-up to 199, 142, 79 and then 44 patients. The median overall survival appeared to be reached around 2025, when the probability of survival fell below the 50% threshold (Figure 1).

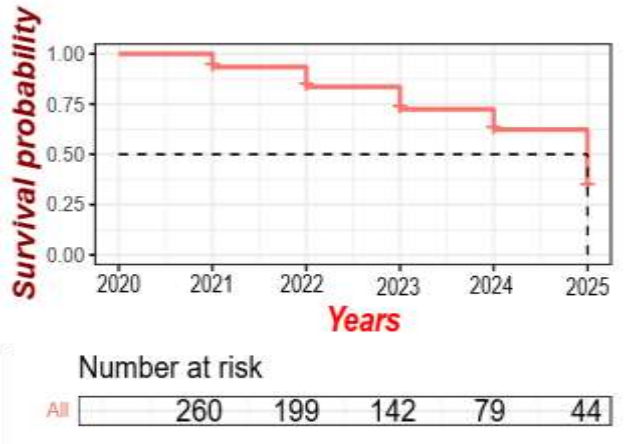

Figure 1: Overall survival curve of patients with HER2-positive breast cancer

- **Predictors of mortality**

The independent predictors of mortality in our sample were unmarried marital status (AHR = 0.44; 95% CI: 0.23-0.84; p = 0.012), presence of comorbidity (AHR = 0.42; 95% CI: 0.20-0.87; p = 0.019), presence of metastases at diagnosis (AHR = 1.97; 95% CI: 0.96-3.32; p = 0.046), breast surgery (AHR = 2.30; 95% CI: 1.25-4.25; p = 0.008) and radiotherapy (AHR = 2.60; 95% CI: 1.18-5.70; p = 0.017) (Table 5).

Table 5: Univariate and multivariable Cox proportional hazards models of predictors of mortality among patients with HER2-positive breast cancer

	Deceased		Univariate Cox proportional hazards model			Multivariable Cox proportional hazards model		
Predictive factors	**Yes n (%)**	**No n (%)**	**CHR**	**95% CI**	***P***	**AHR**	**95% CI**	***P***
Age group								
18–44 years	48 (55.8)	88 (51.8)	1	Ref.		1	Ref.	
45–59 years	26 (30.2)	61 (35.9)	1,07	0.66 - 1.72	0,79	1,49	0.72 - 3.08	0,282
≥60 years	12 (14.0)	21 (12.4)	1,09	0.58 - 2.05	0,79	1,97	0.82 - 4.72	0,128
Marital status								
Married	62 (70.5)	100 (58.1)	1	Ref.		1	Ref.	
Not married	26 (29.5)	72 (41.9)	0,68	0.43 - 1.08	0,1	0,44	0.23 - 0.84	**0,012**
Residence								
Urban	81 (94.2)	157 (95.2)	1	Ref.		1	Ref.	
Non-urban	5 (5.8)	8 (4.8)	1,25	0.51 - 3.08	0,63	1,17	0.43 - 3.20	0,762
Comorbidity								
No	62 (70.5)	119 (69.2)	1	Ref.		1	Ref.	
Yes	26 (29.5)	53 (30.8)	0,88	0.56 - 1.39	0,57	0,42	0.20 - 0.87	**0,019**
Cancer stage								
Stage 2	10 (11.4)	25 (14.5)	1	Ref.		1	Ref.	
Stage 3	49 (55.7)	103 (59.9)	0,88	0.45 - 1.74	0,71	1,21	0.47 - 3.12	0,693
Stage 4	29 (33.0)	44 (25.6)	1,03	0.50 - 2.12	0,93	1,72	0.62 - 4.79	0,297
Histological grade								
Grade I–II	36 (56.2)	81 (61.8)	1	Ref.		1	Ref.	
Grade III	28 (43.8)	50 (38.2)	1,19	0.73 - 1.95	0,48	0,68	0.37 - 1.24	0,21
Metastasis at diagnosis								
No	57 (64.8)	125 (72.7)	1	Ref.		1	Ref.	
Yes	31 (35.2)	47 (27.3)	1,31	0.84 - 2.02	0,23	1,97	0.96 - 3.32	**0,046**
Molecular profile								
Luminal B HER2-positive	31 (35.6)	56 (33.1)	1	Ref.		1	Ref.	
HER2-enriched	56 (64.4)	113 (66.9)	0,89	0.57 - 1.37	0,58	0,99	0.53 - 1.84	0,96
HER2 status								
HER2 2+	12 (13.6)	23 (13.4)	1	Ref.		1	Ref.	
HER2 3+	76 (86.4)	149 (86.6)	0,93	0.50 - 1.70	0,8	0,93	0.42 - 2.06	0,85
Chemotherapy								
Yes	71 (80.7)	128 (74.4)	1	Ref.		1	Ref.	
No	17 (19.3)	44 (25.6)	0,77	0.45 - 1.31	0,33	0,57	0.24 - 1.34	0,19
Anti-HER2 targeted therapy								
No	32 (36.4)	81 (48.2)	1	Ref.		1	Ref.	
Yes	56 (63.6)	87 (51.8)	1,07	0.69 - 1.67	0,74	1,91	1.00 - 3.66	0,051
Breast surgery								
No	37 (46.2)	93 (58.9)	1	Ref.		1	Ref.	
Yes	43 (53.8)	65 (41.1)	1,68	1.08 - 2.61	0,02	2,3	1.25 - 4.25	**0,008**
Radiotherapy								
No	15 (17.0)	50 (29.1)	1	Ref.		1	Ref.	
Yes	73 (83.0)	122 (70.9)	1,92	1.10 - 3.35	0,02	2,6	1.18 - 5.70	**0,017**
Hormone therapy								
Yes	17 (19.3)	35 (20.3)	1	Ref.		1	Ref.	
No	71 (80.7)	137 (79.7)	0,92	0.54 - 1.56	0,75	1,18	0.54 - 2.58	0,67
Palliative chemotherapy								
No	68 (77.3)	127 (73.8)	1	Ref.		1	Ref.	
Yes	20 (22.7)	45 (26.2)	0,77	0.47 - 1.26	0,29	1,02	0.50 - 2.06	0,96

4. Discussion

The results of our analyses showed that the patients with HER2-positive breast cancer included in our sample were relatively young, with a mean age of 45.36 ± 10.91 years, and more than half belonged to the 18-44-year age group. This result is consistent with observations reported in Cameroon by Ngowa et al., who also found a predominance of young women, with a mean age close to 45 years and a large proportion of patients under 50 years of age [15]. The relatively young age of patients is also described in several African studies and contrasts with data from high-income countries, where breast cancer is more frequently diagnosed at an older age [6,16]. This difference may be explained by the demographic structure of African populations, but also by genetic, reproductive and environmental factors, as well as delayed diagnosis.

Clinically, we found that a breast lump was the main circumstance of discovery of breast cancer in our sample. This result is comparable to the Cameroonian data reported by Ngowa et al., where self-detection was also the most frequent mode of discovery. This observation highlights the absence or insufficiency of early screening and shows that patients mainly consulted when a palpable abnormality was already present. The high proportion of advanced stages in our sample, with 58.5% stage III and 28.1% stage IV, confirms this diagnostic delay. These results are consistent with the meta-analysis by Jedy-Agba et al., which showed that most breast cancers in sub-Saharan Africa were diagnosed at locally advanced or metastatic stages [17]. They are also consistent with the work of McCormack et al. (2020), which showed that diagnostic and therapeutic delays strongly contributed to the survival deficit observed in sub-Saharan Africa [6].

Invasive ductal carcinoma was the dominant histological type in our study, accounting for 91.9% of cases. This predominance is classically reported in the literature and had also been observed in previous Cameroonian studies by Ngowa et al. and Zingue et al. (2021) [7,15]. The HER2-positive profile gives these tumours a more aggressive biological behaviour, linked to HER2 amplification or overexpression, promoting tumour proliferation, invasion and the risk of metastasis [9]. Confirmation of HER2 status is therefore essential, as it determines access to anti-HER2 targeted therapies. The recommendations of the American Society of Clinical Oncology emphasise the importance of standardised assessment of HER2 status by immunohistochemistry, with confirmation by in situ hybridisation for equivocal cases, in order to avoid misclassification and guide treatment appropriately [18].

Therapeutically, neoadjuvant or adjuvant chemotherapy was administered to 76.5% of patients, reflecting good use of conventional systemic treatments. In contrast, anti-HER2 targeted therapies were reported in only 43.5% of patients, with 40.0% receiving trastuzumab and only 3.5% receiving pertuzumab. This underuse contrasts with international standards, where the combination of chemotherapy and trastuzumab is a cornerstone of treatment for early and locally advanced HER2-positive breast cancers [11,19]. In the metastatic setting, the combination of pertuzumab, trastuzumab and docetaxel showed a major overall survival benefit in the CLEOPATRA trial [13]. Similarly, modern strategies including trastuzumab emtansine and trastuzumab deruxtecan have improved outcomes in high-risk or previously treated patients [10,12]. Thus, the limited proportion of patients who received targeted therapy in our series reflects not so much inadequate medical decision-making as a real accessibility constraint related to cost, drug availability and difficulties in maintaining treatment continuity in the Cameroonian context.

This explanation is supported by African data. Vanderpuye et al. (2021) showed that breast cancer management in sub-Saharan Africa remains limited by difficulties in accessing immunohistochemistry, radiotherapy, essential medicines and targeted therapies [20]. Gershon et al. (2019) also highlighted that trastuzumab, although effective, remains difficult to afford in several sub-Saharan African countries when its cost is considered in relation to national income and the actual financing of care [21]. Our study therefore highlights an important clinical reality: despite the existence of a specialised technical platform at Douala General Hospital, access to anti-HER2 therapies remains incomplete, which may contribute to the observed mortality.

The mortality rate in our sample was 33.8% (n = 88), and overall survival gradually decreased during follow-up to approximately 36% after five years. This survival appears low compared with outcomes observed in high-income countries, where anti-HER2 treatments have transformed patients' prognosis. However, it remains consistent with several African data. The meta-analysis by Limenih et al. (2024) estimated five-year overall survival among patients with breast cancer in sub-Saharan Africa at around 40% [5]. Joko-Fru et al. (2020) reported an overall five-year relative survival of 59%, but survival fell sharply among patients diagnosed at an advanced stage [16]. In our study, the high proportion of stages III and IV, the presence of metastases at diagnosis in 30% of patients, and partial access to targeted therapies probably explain this lower survival. Thus, our results do not reflect only the biological aggressiveness of the HER2-

positive subtype, but also the impact of diagnostic delay and therapeutic constraints.

The independent predictors of mortality identified were unmarried marital status, presence of comorbidities, metastases at diagnosis, breast surgery and radiotherapy. The presence of metastases at diagnosis is the most clinically expected factor, as it reflects systemic disease and a greater tumour burden. This result is consistent with data from Joko-Fru et al. (2020), who showed that advanced stage was strongly associated with poorer survival [16]. It also aligns with the findings of Kang et al. (2023), who highlighted the importance of tumour characteristics and stage in the prognosis of HER2-positive breast cancers [22].

The observed association between breast surgery, radiotherapy and higher mortality may be explained by the fact that, in our sample, patients who received surgery or radiotherapy may have had more advanced tumours, more complex treatment indications, or disease requiring multimodal management. Similarly, the protective associations observed for unmarried marital status and the presence of comorbidities may be influenced by selection bias, small numbers in some categories, missing data or residual confounding.

Our study has several strengths. It focuses on a specific molecular subtype, HER2-positive breast cancer, which remains poorly documented in Cameroon. It combines sociodemographic, clinicopathological, therapeutic and outcome characteristics with survival analysis and Cox regression. It therefore provides useful local data to guide clinical practice and care planning. However, one limitation is its single-centre design, which may limit the generalisability of the results.

Conclusion

Ultimately, HER2-positive breast cancer at Douala General Hospital mainly affected young women, who were often diagnosed at a locally advanced or metastatic stage. Mortality remained high and five-year survival was limited, despite frequent use of chemotherapy. These results highlight the urgent need to strengthen early diagnosis, reliable access to immunohistochemistry, availability of anti-HER2 therapies, radiotherapy and long-term follow-up. They also emphasise the importance of local data in adapting international recommendations to the Cameroonian context and reducing missed opportunities for patients with HER2-positive breast cancer.

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