

Current status of clinical and pathological characteristics of breast cancer patients in Brazil: results of the AMAZONA III study (GBECAM 0115).

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Background

Breast cancer (BC) is the most common tumor in women in Brazil with about 60 thousand new cases estimated per year. In low and middle-income countries, patients with BC are diagnosed with more advanced stages as compared with high-income countries. In Brazil, disparities in access to new therapies are recognized; previous data suggests worse survival of BC patients treated in the public system. The aim of AMAZONA III study (GBECAM 0115) is to describe the current status of BC care in Brazil. Here we report patients data at baseline.

Methods

The AMAZONA III is a prospective BC registry that included women 18 years or older with newly diagnosed stage I to IV BC from 22 sites in Brazil in the period of January 2016 to March 2018. All patients provided written informed consent; data was collected from interview and medical charts, comprising clinical-demographic variables, initial treatment and a planned follow-up for 5 years. BC subtypes were defined by hormone receptor (HR) expression, HER2 status and grade according to von Minckwitz G. et al (2012). Here we present a descriptive analysis of the patients’ baseline characteristics. Continuous variables are shown as mean (standard-deviation) and categorical variables by its absolute and relative frequencies. The study is registered in clinicaltrials.gov NCT02663973.

Figure 1. BC subtypes at diagnosis.

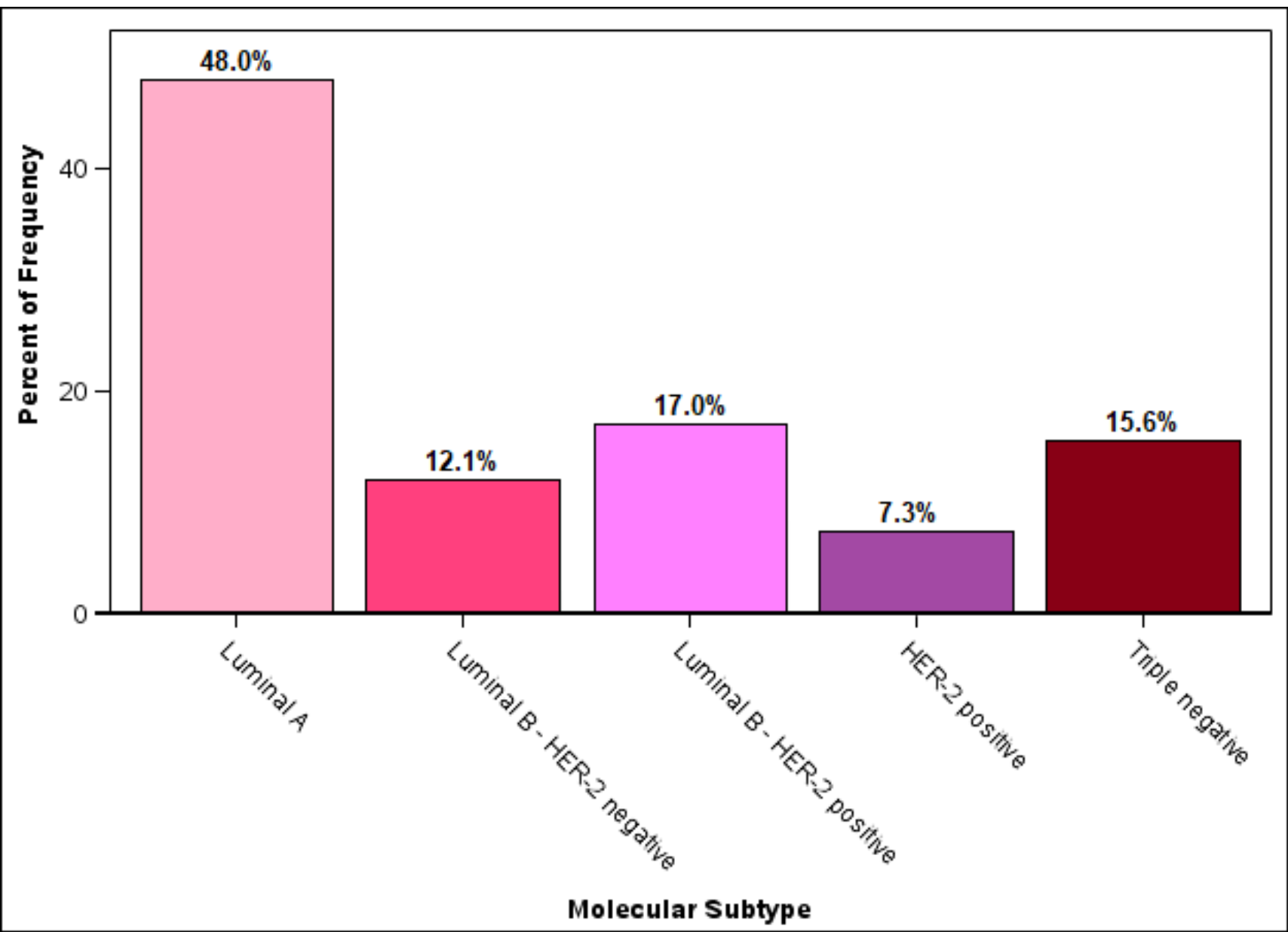


Table 1. Patients’ characteristics.

Characteristic	N (%)
Age	
Mean (standard deviation)	53.9 (13.4)
≤ 35	242 (8.4)
36-50	1005 (34.8)
> 50	1641 (56.8)
Health Insurance	
Public	1844 (63.1)
Private	1077 (36.9)
Skin color	
White	1684 (58.6)
Black	177 (6.2)
Brown	988 (34.4)
Other	25 (0.8)
Number of children	
1	570 (25.0)
2	783 (34.3)
3	484 (21.1)
4 or more	447 (19.6)
Detection method	
Symptomatic	1827 (66.0)
Mammogram	941 (34.0)
Histology	
Ductal	2281 (80.9)
Lobular	194 (6.9)
Others	345 (12.2)
HER-2	
Positive	545 (23.4)
Negative	1781 (76.6)
Hormone receptor	
Positive	1919 (78.0)
Negative	540 (22.0)
Tumor grade	
1	427 (16.7)
2	1308 (51.0)
3	827 (32.3)
Pathological stage	
I	621 (26.3)
II	981 (41.6)
III	637 (27.0)
IV	119 (5.1)

Figure 2. Comparison between public and private insured patients.

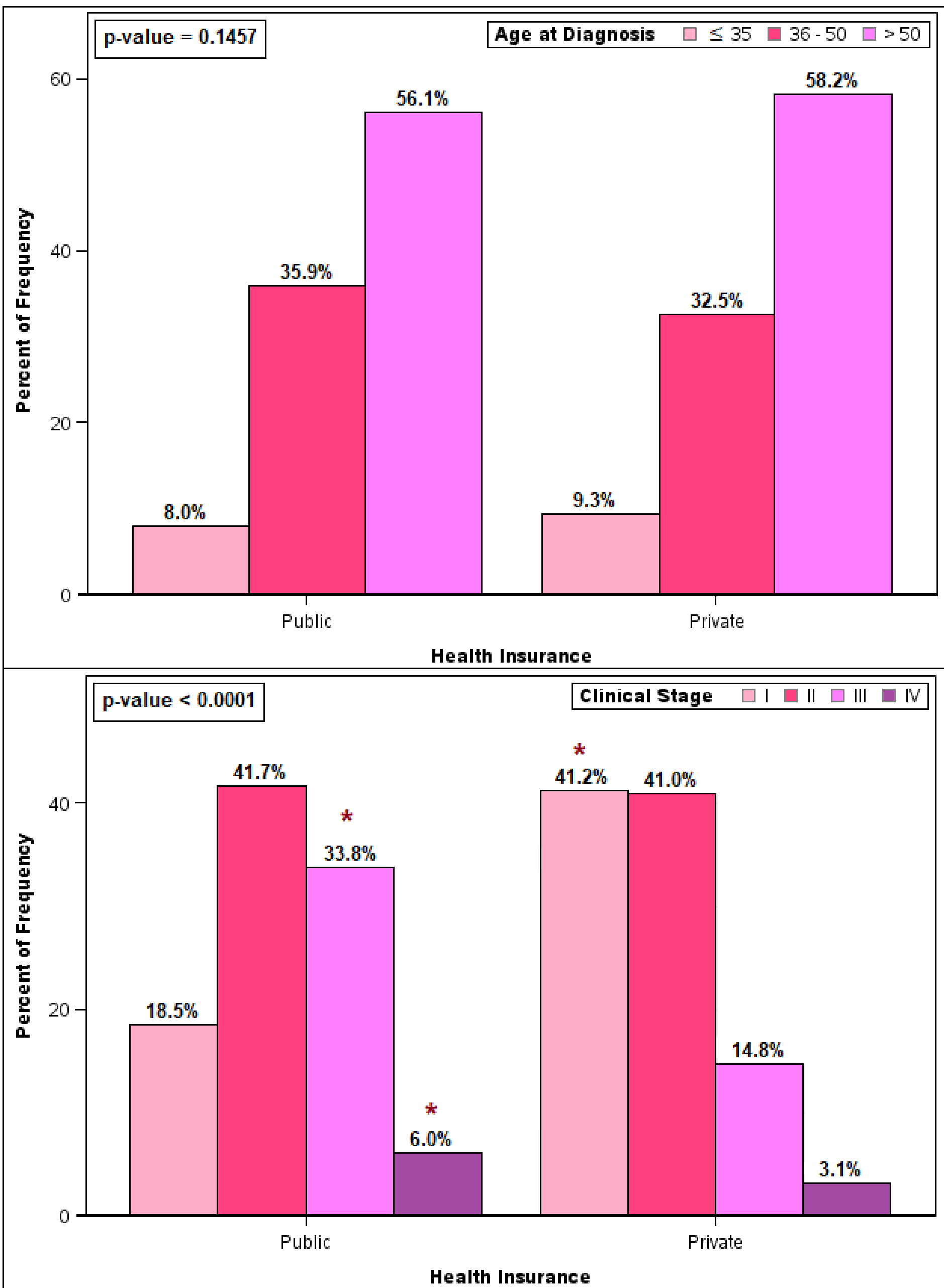
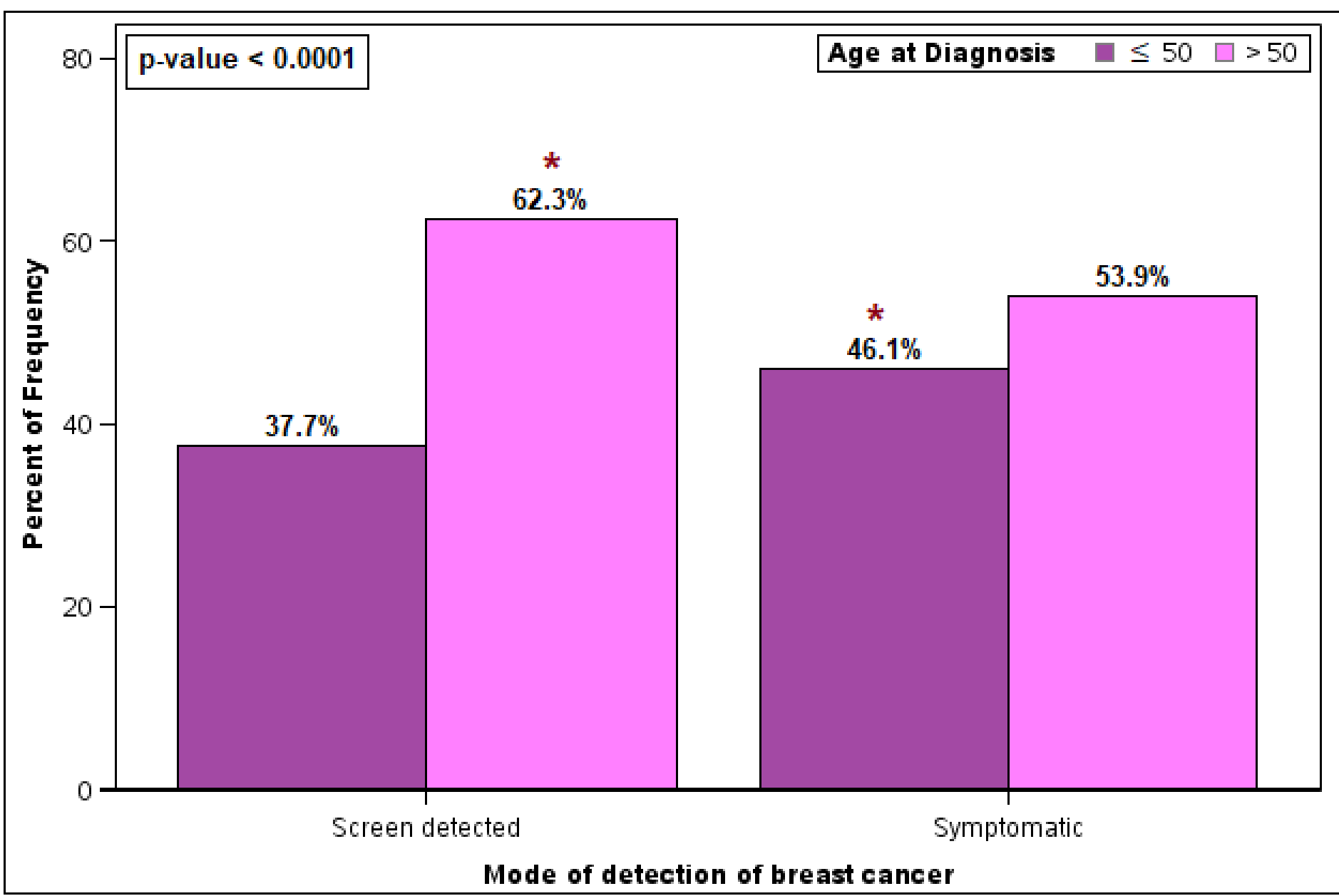


Figure 3. Comparison between mode of BC detection according to age at diagnosis.



*Statistically significant difference.

Results

A total of 2950 patients were included in the study. Table 1 describes patients’ clinicopathological characteristics. Mean age at diagnosis was 53.9 years old, the majority of patients (68.6%) had stage II-III and most common histology was ductal (80.9%). BC subtypes are described in Figure 1 – Luminal A was the commonest (48.0%). In Figure 2, we compared public and private healthcare insured patients regarding age and stage at diagnosis. We found that, although there was no difference regarding age, a higher proportion of privately insured patients were diagnosed in stage I (41.2% vs 18.5%), while a lower proportion of these patients were diagnosed in stages III (14.8% vs 33.8%) and IV (3.1% vs 6.0%). Furthermore, only 34.0% of patients were screen-detected; of these, less than half were younger than 50 years-old (Figure 3).

Conclusions

Breast cancer is diagnosed at an earlier age among Brazilian patients. The majority of patients were diagnosed with symptomatic BC so that a significant proportion is still diagnosed in stages III and IV. Among other factors, these findings could have a significant impact in treatment outcomes. Furthermore, we found that patients insured by the public health system had a higher probability of being diagnosed in late stages and that the patients 50 years or younger had a greater probability of being diagnosed with gross clinical disease rather than in screening programs. Further analysis of this large cohort of patients will help to identify other important elements and direct future strategies for breast cancer control.

Acknowledgements