

# Overall survival of patients undergoing mastectomy with or without breast reconstruction for breast cancer treatment

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## OBJECTIVE

To analyze the overall survival of patients undergoing mastectomy with or without breast reconstruction for breast cancer treatment

## METHODS

Cohort study of women undergoing mastectomy in the Cancer Hospital III (National Cancer Institute / INCA) from August 2001 to November 2002.

Immediate or late breast reconstruction was considered as the independent variable.

The overall survival was defined as the interval between the date of the mastectomy and the date of death or censure. The vital condition and sociodemographic and clinical variables were determined based on medical records and Mortality Information System (SIM).

Descriptive analysis of the study population was performed. Exploratory evaluation of survival at 10 years was performed using the Kaplan-Meier and multivariate analysis (Cox regression model).

This study was approved by the Research Ethics Committee of INCA.

## RESULTS

There were eligible for the study 620 patients.

The majority had 50 years of age or older at the time of surgery, without a partner and with low education. Breast reconstruction was performed in 15.2% of women (n=94).

In 10 years, the overall survival probability was 60.3% (Figure 1) and women undergoing breast reconstruction showed better survival compared to those who did not have (85.9% vs 55.6%;  $p < 0.001$ ) (figure 2).

After adjustment for clinical and sociodemographic variables, women undergoing breast reconstruction showed 63.7% risk reduction of death compared to the other (HR = 0.363; 95% CI 0.204 to 0.645;  $p = 0.001$ ) (table 1).

## CONCLUSION

Breast cancer women undergoing breast reconstruction have better overall survival compared to those undergoing just a mastectomy.

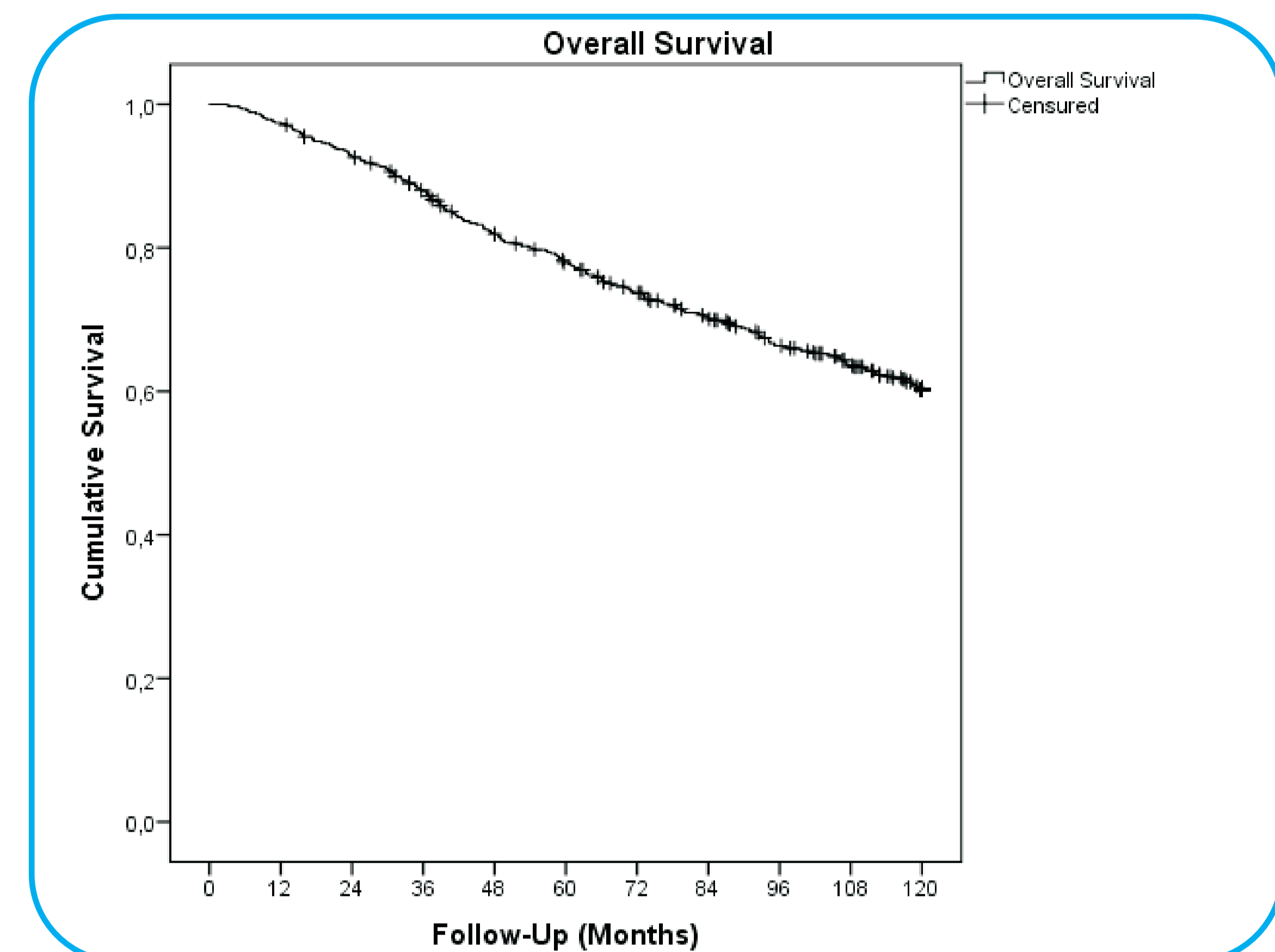


Figure 1 – Overall Survival

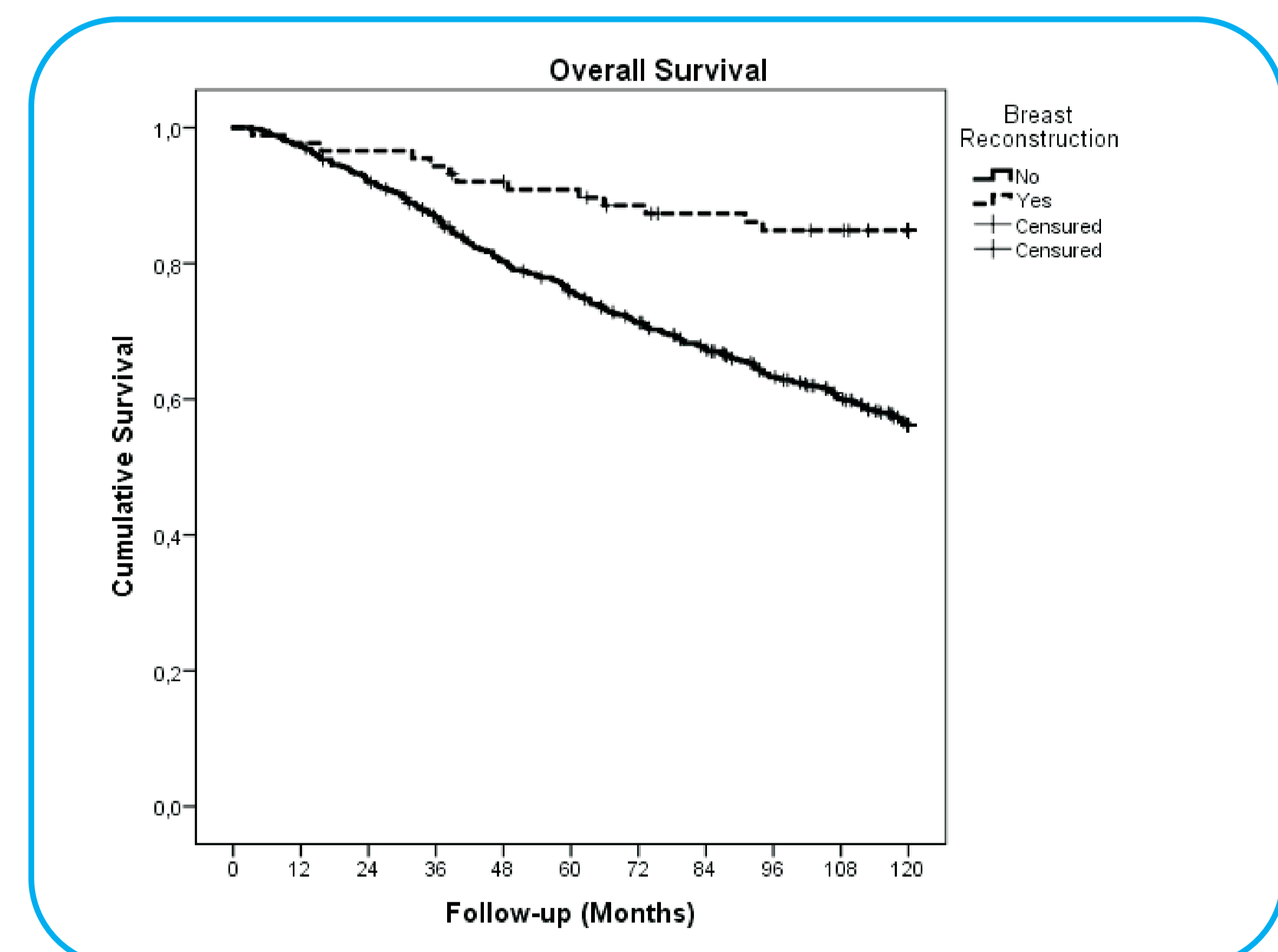


Figure 2 - Overall survival and breast reconstruction

**Table 1** – Cox regression model for overall survival of women undergoing mastectomy for treatment of breast cancer - HCIII / INCA, 2000-2001

Breast Reconstruction	Crude		<sup>1</sup> Adjusted		<sup>2</sup> Adjusted	
	HR (CI 95%)	P Value	HR (CI 95%)	P Value	HR (CI 95%)	P Value
Yes	0,271 (0,155-0,474)	<0,001	0,329 (0,186-0,583)	<0,001	0,363 (0,204-0,645)	0,001
No	Reference		Reference		Reference	

<sup>1</sup> Adjusted for pathological staging and age

<sup>2</sup> Adjusted for disease staging, age, number of lymph nodes removed, performing radiotherapy (neo and / or adjuvant) and marital status.

**Key words:** Breast cancer, Survival analysis, Epidemiology