

Effect of health care insurance on survival in patients with surgical treatment for breast cancer in a cancer center in Medellín-Colombia: a historical cohort study

García HI¹, Egurrola JA¹, Gómez LR², Herazo-Maya F³, Sánchez V¹, Ossa CA³

¹ Research Unit, Instituto de Cancerología - IDC Las Américas

² Clinical Oncology, Instituto de Cancerología - IDC Las Américas

³ Breast Surgery Department. Instituto de Cancerología - IDC Las Américas

Grupo de Investigación en Cáncer, Instituto de Cancerología - IDC Las Américas, Medellín, Colombia

BACKGROUND. Death rates from breast cancer in Colombia remain high, due to unequal access to early prevention and screening programs, timely treatment and appropriate follow-up after surgery. In Colombia there are two types of health care insurance: private or contributory regime (in Spanish: regimen contributivo - RC), where the patient pays a tax or a proportion of his/her income/salary to the Health Promotion Entities (in Spanish: Entidades Promotoras de Salud - EPS); and subsidized regime (in Spanish: regimen subsidiado - RS), where the government assumes the payment for poor patients. Both regimens are regulated by the Ministry of Health. The type of health care insurance has been associated with inequitable access to breast cancer programs. The insurance through the EPS belonging to RC and RS have differences in coverage and access to care programs for breast cancer. There is no evidence on the effect of health care insurance on survival of patients with the disease in Colombia.

HYPOTHESIS. The breast cancer patients treated with breast surgery covered by RC had better overall survival (OS) and disease-free (DFS) than those patients covered by RS at the Instituto de Cancerología (IDC) Las Américas, Medellín - Colombia, between 2008-2013.

METHODS. We included women with breast cancer that was treated by breast surgery in the IDC, with data obtained from the Institutional Cancer Registry and whose vital status was confirmed in medical consultation and / or by phone calls. Personal, time of treatment access, clinical and pathological variables were compared between EPS - RC and EPS - RS. For continuous and categorical variables we used the t student test and chi-square test, respectively. Survival analyses were done with Kaplan Meier and log rank test. The variable of interest was set on a Cox regression model.

RESULTS. 2,732 patients were included. 2,347 belonged to RC and 385 belonged to RS. Median follow-up from diagnosis was 36 months. Of those patients covered by RC, 10% died and 12% had metastases or relapse. And those patients covered by RS, 23% died and 20.6% had metastases or relapse. There were significant differences in access times to treatment (RC: 52 days; RS: 112 days ($p < 0.05$)). The Kaplan-Meier curves of DFS and OS were better in the EPS-RC compared with EPS-RS ($p < 0.05$). The Cox regression model did not meet the goodness of fit test and insurance variable was not proportional to the cohort. The OS and DFS, times of access to care and diagnosis at an early stage of the disease are significantly better in patients in the RC compared to RS. It is necessary to estimate the time from the beginning of symptoms (ej. lump identification by self-examination or abnormality in a screening mammography) to diagnosis in a new research.

CONCLUSION. The OS and DFS, times of access to care and diagnosis at an early stage of the disease are significantly better in patients RC in the RS.