

HER2-positive Breast Cancer: Impact of Target Therapy on Survival of Hispanic Cohort

Authors

Ossa CA^{1,2}, Gómez LR^{1,3}, Román V⁴, Rivas Y^{1,5}, García H^{1,5}

¹ Grupo de Investigación en Cáncer Instituto de Cancerología - IDC Las Américas, Medellín, Colombia

² Breast Surgery Department. Instituto de Cancerología - IDC Las Américas, Medellín, Colombia

³ Clinical Oncology, Instituto de Cancerología - IDC Las Américas, Medellín, Colombia

⁴ Fellow Breast Surgical Oncology

⁵ Research Unit, Instituto de Cancerología - IDC Las Américas

Purpose. HER2+ Breast Cancer are a group of tumors with overexpression or amplification of human epidermal growth 2 Receptor (HER2) belonging to a family of four transmembrane tyrosine kinase receptors, who plays an important role in the transduction pathways, cell proliferation and apoptosis and stimulating angiogenesis. It is identified in 15% to 20% of all invasive ductal breast cancers and is associated with an adverse prognosis with high rates of recurrence. Data in Colombia and Latin-America are scarce about response and benefits of the target therapy in this group of patients.

Objective. Compare overall survival (OS) and disease-free survival (DFS) in women with non metastatic HER2-positive breast cancer with/out trastuzumab in a comprehensive cancer center, Instituto Cancerología (IDC) Las Américas evaluate mortality reduction, recurrence and metastasis with the target therapy

Methods. Historical cohort study in women with invasive Ductal Carcinoma Her2+ by IHC or FISH, treated at the IDC Las Américas, data were obtained from the Institutional Database during 2008-2013; vital status were verified by phone call. The clinical and pathological variables were compared between Trastuzumab vs non-Trastuzumab. t student with χ^2 and survival with Kaplan Meier method and Breslow test were evaluated. Trial was approved by an Independent IRB.

Results. 437 patients HER2+ were collected, 354 (81%) patients received Trastuzumab and 83 (19%) no. Median follow-up was 47 months, OS in the Trastuzumab group 86% and 72.6% in the no Trastuzumab group ($p < 0.01$) DFS with trastuzumab was 77.9% and 66.5% without trastuzumab ($p < 0.03$), with a statistically significant difference in OS and DFS as favoring the group receiving Trastuzumab. Independent of the hormone receptor status (positive and negative) the group of patients receiving Trastuzumab therapy had better OS and DFS.

Conclusions. There are differences in OS (13.4%) and DFS (11.4%) in the group of patients HER2+ receiving target therapy (trastuzumab) in our population. This difference persists independent of hormonal receptor status. 43 % of our Her2+ population received Trastuzumab in the neoadjuvant setting. We also Found had better OS and DFS in those who achieved pCR in the Scenario setting with Trastuzumab .

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