

197P Application of Neo-Bioscore staging to predict the benefit of Pertuzumab in Her2 positive early breast cancer



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INTRODUCTION

The Neo-Bioscore (NB) staging system predicts the survival of patients (Pt) with early breast cancer (EBC) according to the initial clinical stage (CS), grade, estrogen receptor (ER), Her 2, and final pathological stage (PS) after neoadjuvant treatment (NeoT). Its application may be useful to assess the benefit of Pertuzumab (Pz) in the NeoT of Her 2 positive (HEBC). An NB greater than 2 is known to predict a worse prognosis.

MATERIAL AND METHODS

We analyzed the role of double blockade to reduce the NB staging system by assessing the difference between the pretreatment score (CS + Grade + ER) and the final score after NeoT with chemo-trastuzumab (Tz) versus the chemo-Tz-Pz combination. We also analyzed the differences in the pathological complete response (pCR) and according to stages II and III.

RESULTS

115 Pt completed preplanned NeoT with antiHer2 and Chemotherapy (89% Carboplatin-Docetaxel) in our site from 2015 to 2020. 79 Pt treated with Chemo- Tz and 36 Pt given Chemo- Tz-Pz, median age 53 and 50 years. The median follow-up was higher in Tz-Pz (51 vs 27 months). The pCR was higher in the Tz-Pz group (61% vs 32.9%, OR 3.2 p=0.008), benefiting both stage II and III. The increase in NB was lower in the group that received Pz-Tz vs Tz (18% difference, OR 0.44 p = 0.096).

Post-treatment analysis predicted a worse prognosis in patients without Pz, with a difference in the increase in NB of 21% (95% CI -0.05 0 to 42.5%) and 17% (95% CI - 12 to 46%) in stages II and III compared to those treated with double blockade.

| N=115 Pt | Tz (69%) | Tz+ Pz (31%) | OR (95% CI) |
|---|----------|--------------|--------------------------------|
| pCR | 32.9% | 61.1% | 3.2 (1.4-7.2) p=0.008 |
| Pretreatment score>2 | 7.6% | 25% | 4.05 (1.3-12.4) p=0.016 |
| Nb >2 | 24.1% | 38.9% | 2.01 (0.8-4.6) p=0.122 |
| Increase Nb vs. Pretreatment Score | 43% | 25% | 0.44 (0.18-10.5) p=0.096 |
| STAGE II (64 pt) | 44 | 20 | |
| pCR | 40.9% | 65% | 2.6 (0.8-8) p=0.106 |
| Pretreatment Score>2 | 2.3% | 5% | 2.26 (0.13-38) p=0.531 |
| Nb >2 | 6.8% | 15% | 2.41 (0.44-13.1) p=0.366 |
| Increase Nb vs. Pretreatment Score | 36.4% | 15% | 0.30 (0.78-1.21) p=0.139 |
| STAGE III (49 pt) | 33 | 16 | |
| pCR | 24.2% | 56.3% | 4.01 (1.13-14.28) p=0.053 |
| Pretreatment Score >2 | 15.2% | 50% | 5.6 (1.42-21.9) p=0.01 |
| Nb >2 | 48.5% | 68.8% | 2.33 (0.66-8.22) p=0.229 |
| Increase Nb vs. Pretreatment Score | 54.5% | 37.5% | 0.5 (0.14-1.69) p=0.364 |

CONCLUSIONS

In our review, when applying NB staging system, the combined therapy with Pz and Tz not only increases the pCR but, taking other factors (ER, Grade, pre and post-treatment stage), it also induces a better prognosis in both stages II and III of HEBC. An increase in sample size and follow-up in the Pz arm is likely to show the expected benefit according to this prognostic scale.

CONTACTS AND CONFLICTS OF INTEREST

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Authors do not have conflicts of interest.