AB079. SOH22ABS128. Receptor change on residual disease following neoadjuvant therapies for locally advanced breast cancer fails to impact oncological and survival outcomes

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Background: Conventional breast cancer patient management involves prescription of neoadjuvant therapies (NAT). The aim of this study was to evaluate the rate of receptor status change following NAT and to determine the impact of these changes on oncological and survival outcomes.

Methods: A retrospective cohort study of consecutive female patients undergoing NAT for breast cancer managed in a single institution between 2005–2015 were included. Rates of receptor change were determined using descriptive statistics. The impact of receptor changes on locoregional recurrence (LRR), distant disease recurrence (DDR), and overall survival (OS) were determined using Kaplan-Meier (log-rank) analyses.

Results: A total of 359 patients were included (mean age: 49.9±10.6 years; range, 23–78 years) with mean follow up of 100.6 months. Of these, 29.0% achieve a pathological complete response (104/359) and 71.0% had residual disease (RD) following NAC (255/359). Of those with RD, 7.5% had a receptor change (19/255) which failed to impact LRR (P=0.748), DRR (P=0.581) and OS (P=0.325). In total, 3.1% had a change in estrogen receptor status (8/255), which failed to impact LRR (P=0.883) or OS (P=0.483), although trended towards significance with respect to LRR (P=0.096). Similarly, 3.5% had a change in progesterone receptor status (9/255), which failed to impact LRR (P=0.705), DRR (P=0.419) and OS (P=0.114). Additionally, 2.4% experienced a change in human epidermal growth factor receptor-2 (6/255), which failed to impact LRR (P=0.177), DRR (P=0.475) and OS (P=0.223).

Conclusions: Changes to receptor status on RD following NAT fails to impact oncological and survival outcomes for patients being treated for locally advanced breast cancer. Further immunohistochemistry in RD is necessary.

Keywords: Breast cancer; neoadjuvant chemotherapy (NACT); receptor status; residual disease (RD); survival outcome

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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