

breast cancer, locally advanced

336P

CLINICAL IMPORTANCE OF DISCORDANCE IN HORMONE RECEPTOR AND HER2/NEU STATUS AFTER NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER

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Aim: Neoadjuvant chemotherapy (NAC) is used longer for both locally advanced breast cancer and early stage to increase breast conservation. Discordance of the hormone receptor (HR) status was reported to be 8-33% of the breast cancer after NAC. The aim of this study was to compare the HR and HER2/neu status between core needle biopsy (CNB) and residual tumour after surgery of breast cancer treated with NAC and also to evaluate effect of discordance and other clinicopathological factors on survival.

Methods: Oestrogen receptor (ER), progesterone receptor (PR) and HER2/neu status were evaluated by immunohistochemistry on 90 CNB of primary tumours and surgical specimens after NAC and 53 patients without NAC as a control group, and then discordance was compared between the two groups. The Chi-Square test was used to evaluate the relationship between discordance and other clinicopathological factors. The association between discordance of HR status after NAC and various other clinicopathological factors was also tested with Spearman's test.

Results: Pathological complete response (PCR) was achieved for 10 (11.1%) patients after NAC. ER and PR were changed significantly more than in the control group. ER and PR discordance were detected in 10 (12.5%) and 17 (21.2%) patients, respectively, in the NAC group, and in 1 (1.8%) and 2 (3.7%) patients in the control group, respectively ($p = 0.04$ and $p = 0.005$). ER discordance was related with HER2/neu alteration. Furthermore, PR discordance correlated with CNB, ER and treatment response while HER2/neu discordance was associated with treatment response ($p = 0.05$). ER discordance was found to be an important prognostic factor for PFS ($p = 0.02$).

Table: 336P Hormone receptor changes after NAC

markers	negative-negative	positive-positive	negative-positive	poitive-negative	change%
ER control NAC	4 25	48 45	1 1	0 9	1.8 12.5
PR control NAC	5 22	46 41	2 7	0 10	3.7 21.2
Her2/NEU control NAC	41 42	4 18	0 2	1 6	1.8 10

Conclusions: NAC might cause alterations in ER, PR or HER2/neu status of tumours in breast cancer. It should be re-tested in the residual tumour after NAC to optimize adjuvant therapy.

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