

P200 Impact of the 21-gene recurrence score assay on treatment decision in early breast cancer (EBC) patients with favourable prognostic factors

Predictive and prognostic factors

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Goals: The 21-gene Recurrence Score (RS) assay is a clinically validated test predicting the likelihood of chemotherapy benefit and the risk of distant recurrence for EBC patients with estrogen receptor positive (ER+) tumors. Its use as a tool for adjuvant decision-making is recommended e.g. according to St Gallen 2009 and by the NCCN guidelines that also include patients with lymph node micrometastasis. For the last 3 years we have used OncotypeDX in our institution in a selected group of patients to find those who need chemotherapy despite the presence of favorable characteristics.

Methods: RS was used in 43 patients (pts) (26 premenopausal and 17 postmenopausal) with ER+ EBC who had a combination of favorable prognostic factors and one unfavorable factor (either tumor size, grade, Ki67 or micrometastases). Risk and benefit of adjuvant chemotherapy (CT) was discussed with each patient after knowledge of RS results.

Results: Mean age was 50.1 years (range 35–67). In 36 cases tumors were also PgR positive. Tumor type was invasive lobular in 13 and ductal in 30 pts. Tumor size was ≥ 2 cm in 40, 2.2 cm in 2 and 3 cm in 1 pt. Lymph nodes were negative in 38 pts. In 5 pts micrometastasis only was present in 1 or 2 nodes (3 and 2 pts, respectively). Tumor grade was III in 3, II in 18 and I in 9 pts (lobular carcinomas were not graded). HER2 was positive in 1 case. Ki67 score was 1 (<10%) in 21 pts, 2 (10–20%) in 11 and 3 in 10 pts (not measured in 1 pt). RS was <18 (low risk of recurrence) in 27 (63%), 18–30 (intermediate risk) in 10 (23%) and ≥ 31 (high risk) in 6 (14%) pts. None of the pts with low RS advised to receive CT, 12/16 pts with RS ≥ 18 received additional adjuvant CT. Overall, RS resulted in treatment decision of adjuvant CT in 12/43 (28%) pts of this specific population.

Conclusion: For this group of patients with all but one favorable prognostic factors to be classified as “intermediate risk” according to St. Gallen criteria, for whom adjuvant treatment recommendation is either hormonal therapy only or hormonal therapy plus chemotherapy, the adoption of the 21-gene Recurrence Score assay helped in treatment decision-making.