P141 DIFFERENCES IN RECURRENCE SCORE (RS) RESULTS BETWEEN LUMINAL A AND LUMINAL B BREAST CANCER SUBTYPES

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Goals: Ki-67 has been suggested as a surrogate marker for luminal A and luminal B ER/PR+ breast cancer. Data support Ki-67 as a prognostic but not as a predictive marker. The Oncotype DX® assay is validated as a prognosticator and as predictor of likelihood of chemotherapy benefit. This study assessed the distribution of RS results in luminal A and B breast cancer as defined by Ki-67.

Methods: A retrospective analysis was performed of all breast cancer patients (pts) who underwent Oncotype DX® testing through Clalit Health Services from 2/2006 to 9/2012 and for whom Ki-67 data was available. Ki-67 ?15%, >15% was used as cut-off for luminal A and B tumors. Mann-Whitney and Chi-squared/Fisher exact tests were used to assess the differences in continuous and categorical parameters, respectively, between the luminal A and B groups.

Results: Out of 4147 pts who underwent Oncotype DX® testing, Ki-67 data was available for 1155 pts, of whom 724 (63%) had luminal A and 431 (37%) had luminal B tumors. In both groups, most pts were node negative (71% vs 75%; P = 0.11). The groups were similar in respect to age (median [range], 62 [28–85] vs 60 [30–84] yrs; P = 0.16) and the proportion of PR negative pts (16% vs 17%; P = 0.42). They differed significantly with respect to the proportion of pts with IDC (79% vs 87%; P = 0.0006) and tumor size (median [range], 1.5 [0.2–6.5] vs 1.8 [0.2–6.0] cm; P < 0.0001). Grade distribution varied significantly between the groups (P < 0.0001): the proportion of pts with grade 1 tumors was higher in the luminal A than in the luminal B group (19% vs 3%), and the proportion of pts with grade 3 tumors was higher in the luminal B than in the luminal A group (35% vs 8%). RS results varied significantly between the luminal A and B groups (median [range], 16 [0–49] vs 22 [0–69], respectively; P < 0.0001). RS distribution also varied significantly (P < 0.0001) between the groups: in the luminal A group, 59%, 33% and 4% of pts had low, intermediate, and high RS results, respectively (4% had no RS results) and in the luminal B group, the respective values were 32%, 42%, and 23% (3% had no RS results).

Conclusion: There is a wide distribution of RS results in pts with luminal A and B tumors as defined by Ki-67, underscoring the utility of Oncotype DX®. Almost a third of pts with luminal B tumors had low RS results indicating minimal if any likelihood of benefit from chemotherapy.The

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