



AB059. SOH22ABS119. Comparison between the Nottingham prognostic index and OncotypeDX[®] Recurrence Score in predicting outcome in estrogen receptor positive breast cancer

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Background: Traditionally, prognostication of estrogen receptor positive (ER+) breast cancers was conducted using the Nottingham prognostic index (NPI). More recently, multigene signatures such as the OncotypeDX[®] Recurrence Score (RS) provide patient prognostication.

Methods: Consecutive patients with ER+, human epidermal growth factor receptor-2 negative, lymph node negative (ER+/HER2-/LN-) disease managed at our centre between 2005–2015 were included. Disease-free survival (DFS) and overall survival (OS) were determined using Kaplan-Meier (log-rank) analyses and Cox regression analyses.

Results: A total of 1087 patients were included with mean age 59.0±12.1 years (range, 27.0–96.0 years). Median follow up was 96.2 months. NPI was calculated for all patients; 49.9% of patients were in the good prognostic group (NPI <3.4) (542/1,087), 37.4% were in the moderate prognostic group (NPI 3.4–5.4) (407/1,087), while 12.7% were in the poor prognostic group (NPI >5.4) (138/1,087). RS was available for 358 patients (32.9%) with mean RS of 18.7±8.0 (range, 3–59). Of these, 85.5% had RS <25 (306/358), while 14.5% had RS >25 (52/358). Neither NPI nor RS group significantly impacted DFS (P=0.105 & P=0.398) or OS (P=0.605 & P=0.484) respectively. NPI predicted DFS

[hazard ratio (HR): 1.743, 95% confidence interval (CI): 1.215–2.500, P=0.002] and OS (HR: 1.455, 95% CI: 1.061–1.994, P=0.020). RS group failed to predict DFS (HR: 1.602, 95% CI: 0.531–4.831, P=0.403) and OS (HR: 1.573, 95% CI: 0.437–5.660, P=0.488).

Conclusions: This study rationalizes the continued use of NPI as gold standard prognostic indicator in breast cancer and questions the added value of oncotype score which is a key marker of chemotherapeutic efficacy.

Keywords: Breast; cancer; genomics; personalised medicine; precision oncology

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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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