This study evaluated the performance of EndoPredict in pre-menopausal women.

In multivariate cox proportional hazard analysis

Both the EP and EPclin scores were associated with increased risk of distant recurrence [HR 1.3, 95% confidence interval (CI) 1.2-1.5, p<0.001 and HR 3.6, 95% CI 2.3-5.7, p<0.001, respectively].

In multivariate cox proportional hazard analysis only EPclin remained significantly associated with distant recurrence.

At 10 years post-diagnosis, EPclin low-risk women (EPclin <3.3) who received endocrine therapy alone had a DRFS of 97% (95% CI 93-99%) while EPclin high-risk women (≥3.3) had a DRFS of only 76% (95% CI 67-82%) (Figure 1).

When analyzed based on EP risk category, similar results were observed; EP low-risk (EP<5) DRFS 100%, EP high-risk (EP ≥5) 85% (95% CI 78-88%).

The lines show DRFS and the shaded areas show the 95% confidence intervals.

CONCLUSION

In this study with a median follow-up time of 9.7 years, the EP and EPclin scores were highly associated with DRFS in pre-menopausal women who received adjuvant endocrine therapy alone. Based on these data, pre-menopausal women with EPclin low-risk breast cancer with up to three positive lymph nodes may safely forgo adjuvant chemotherapy in addition to endocrine therapy.