Hot Flashes during Adjuvant Hormone Therapy Predict Treatment Discontinuation and Outcome among Breast Cancer Patients

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ABSTRACT

Background

Clinical trials showed that adjuvant hormone therapy-related hot flashes can predict better breast cancer outcomes. This population-based cohort study investigated whether this result can be generalized to a real-world setting.

Methods

By linking the Quality Register for Breast Cancer, Prescribed Drug Register, and Cause-of-death Register, we identified 7,152 chemotherapy-free breast cancer patients who initiated adjuvant hormone therapy in Stockholm during 2006-2019 and followed them until 2020. Hot flashes were defined as new use of drugs for hot flashes within 6 months after initiating adjuvant hormone therapy. Cox models were used to compare disease-free survival and treatment discontinuation among patients with and without hot flashes.

Results

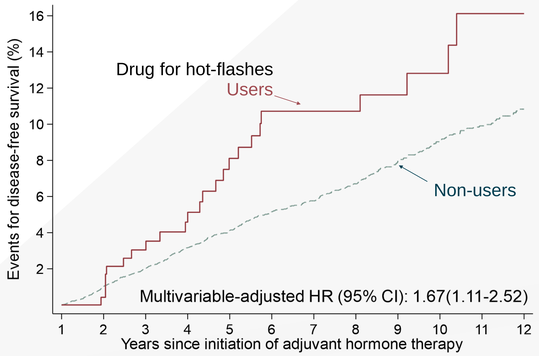
- Patients who newly used drugs for hot flashes shortly after adjuvant hormone therapy initiation had worse disease-free survival, with an adjusted hazard ratio (HR) of 1.67 (95% CI, 1.11-2.52).
- These patients also had higher treatment discontinuation rate, with an adjusted HR of 1.47 (95% CI, 1.21-1.78).
- The association between drugs for hot flashes and treatment discontinuation differed by patient characteristics, with stronger associations among low-income patients [HR, 1.91 (95% CI, 1.41-2.59)] and these without first-degree relatives having cancer [HR, 1.81 (95% CI, 1.39-2.35)] or dying from cancer [HR, 1.71 (95% CI, 1.37-2.12)].

Conclusion

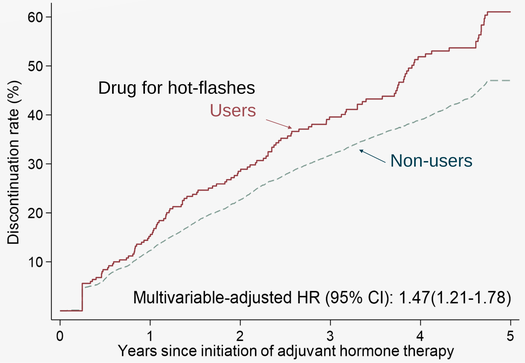
Adjuvant hormone therapy-related hot flashes predict worse – rather than better – breast cancer outcomes among patients in clinical routine, which may potentially be due to higher discontinuation rates observed in these patients. These findings suggest that the result from clinical trials may not be readily generalizable to clinical practice.

RESULTS

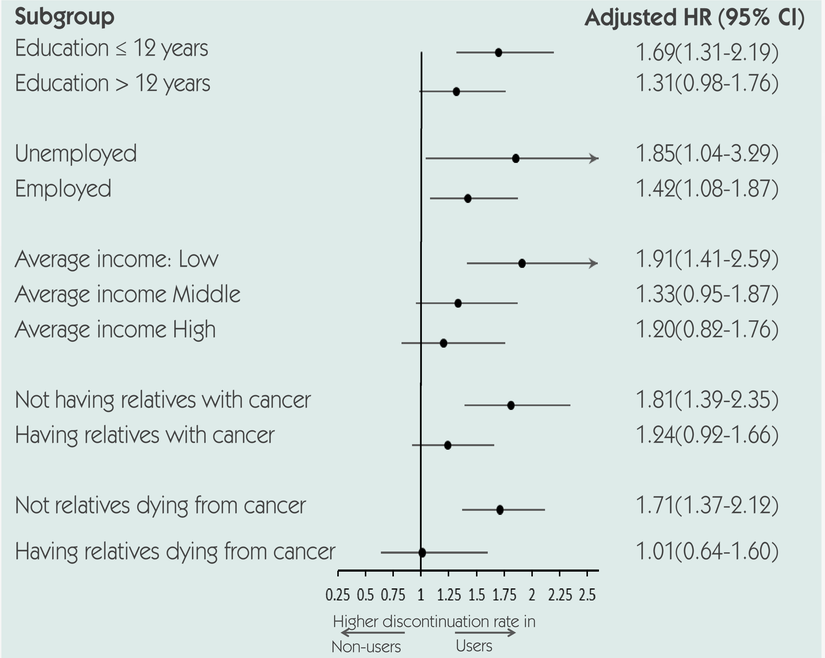
1 Association between Adjuvant Hormone Therapy-Related Hot Flashes and Disease-free survival



2 Association between Adjuvant Hormone Therapy-Related Hot Flashes and Treatment Discontinuation



3 Interaction between Adjuvant Hormone Therapy-Related Hot Flashes and Patients Characteristics on Treatment Discontinuation



Key message

- Current approaches to managing adjuvant hormone therapy-related hot flashes by simply prescribing symptom-relieving drugs are insufficient. Other interventions are needed to reduce treatment discontinuation among women with severe therapy-related side effects.
- Treatment discontinuation should be considered when generalizing results from clinical trials to real-world settings.

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