

CLINICAL INSIGHTS

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Statin Therapy in Early Breast Cancer: The MASTER Trial; A Randomized Phase III, Placebo-Controlled Comparison of Standard (Neo) Adjuvant Therapy Plus Atorvastatin versus Standard (Neo) Adjuvant Therapy Plus Placebo

Signe Borgquist, et al. Dig Dis Sci 69, 670–682 (2024). Clin Epidemiol. 2025 Apr 17:17:409-419.

- Statin use has been consistently associated with improved clinical outcomes (especially recurrence) in breast cancer in multiple observational studies backed by compelling preclinical evidence.
- The biological rationale for cholesterol-lowering statins, as cancer drugs, is evident through actions on several molecular pathways, ie, the mevalonate pathway associated with isoprenoids.
- Double-blind, phase III, randomized, placebo-controlled MASTER (MAmmary cancer STatins in ER positive breast cancer) trial included 1293 women & were administered atorvastatin (80 mg/day) for two years after randomization.
- Atorvastatin was selected given its superior bioavailability, strong affinity to hydroxymethylglutaryl-coenzyme A-reductase (HMGCR), and safety profile even at high dosages with the 80 mg dosing being standard dosing, i.e., as cardio protection following a myocardial infarction due to atherosclerosis.

Findings from the MASTER trial may ultimately support the integration of Atorvastatin into routine oncologic care, offering a widely available and affordable intervention to improve breast cancer outcomes.

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