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Letter to the Editor

Physical activity and quality of life in statin users

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To the Editor,

We read with interest the article by Mert Er *et al.*, *"Physical activity and quality of life in statin users,"*. The topic is clinically important given persistent concerns regarding statin-associated muscle symptoms (SAMS) and their potential impact on adherence and lifestyle behaviors. However, several conceptual and methodological considerations warrant closer examination.

The cross-sectional design substantially limits causal inference. Without pre-treatment baseline assessment or longitudinal follow-up, reduced physical activity or impaired quality of life cannot be confidently attributed to statin exposure rather than underlying cardiovascular risk, multimorbidity, or pre-existing functional limitations.

The study appears to rely predominantly on self-reported symptoms and physical activity. This is particularly relevant in the context of the well-documented **nocebo effect** in statin therapy. Randomized N-of-1 trials such as **SAMSON** and **StatinWISE** demonstrated that the majority of reported muscle symptoms during statin therapy were similarly reproduced with placebo, suggesting expectation-driven symptom attribution rather than pharmacologic causality. Failure to account for this phenomenon risks overestimating statin-related functional impairment.

The diagnostic framework for SAMS requires greater clarity. Contemporary consensus statements emphasize criteria such as temporal relationship to initiation, resolution on challenges recurrence on rechallenge, and creatine kinase evaluation. Without standardized SAMS diagnostic criteria, nonspecific musculoskeletal complaints may be misclassified as statin-induced, thereby biasing associations with reduced activity levels.

Furthermore, insufficient stratification by statin type, dose intensity, and treatment duration limits interpretability. Lipophilic versus hydrophilic statins may differ in tolerability profiles, and absence of such subgroup analyses may mask heterogeneity.

Finally, robust multivariable modeling is essential. Depression, frailty, obesity, diabetes, polypharmacy, and baseline sedentary behavior independently influence quality of life and activity patterns. Without comprehensive adjustment, residual confounding remains likely.

Given the substantial public health consequences of statin discontinuation, caution is warranted in drawing conclusions that may inadvertently reinforce nocebo-driven perceptions. Prospective designs incorporating standardized SAMS assessment, objective physical activity monitoring (e.g., accelerometry), and blinded rechallenge paradigms would more definitively clarify whether statins independently impair physical activity or quality of life.

Author Contributions

Credit: Vimal Tyagi (PhD Scholar) drafting of the manuscript; Critical review of the manuscript for important intellectual content. **Dr. Sajjan Pal** contributed crucial Intellectual input, Supervision, and Article Correction.

Disclosure Statement

No potential conflicts of interest was reported by the author(s).

References

1. Wood FA, Howard JP, Finegold JA, Nowbar AN, Thompson DM, Arnold AD, et al. N-of-1 Trial of a Statin, Placebo, or No Treatment to Assess Side Effects. N Engl J Med. 2020 Nov 26;383(22):2182–4.
2. Herrett E, Williamson E, Brack K, Beaumont D, Perkins A, Thayne A, et al. Statin treatment and muscle symptoms: series of randomised, placebo controlled n-of-1 trials. BMJ. 2021 Feb 24;372:n135.
3. Stroes ES, Thompson PD, Corsini A, Vladutiu GD, Raal FJ, Ray KK, et al. Statin-associated muscle symptoms: impact on statin therapy-European Atherosclerosis Society Consensus Panel Statement on Assessment, Aetiology and Management. Eur Heart J. 2015 May 1;36(17):1012–22.
4. Rosenson RS, Baker SK, Jacobson TA, Kopecky SL, Parker BA, The National Lipid Association's Muscle Safety Expert Panel. An assessment by the Statin Muscle Safety Task Force: 2014 update. J Clin Lipidol. 2014 May-Jun;8(3 Suppl):S58–71.