ABSTRACT

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Incidence of muscle symptoms in placebo arm among statin-intolerant patients: a systematic review with meta-analysis

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Introduction

Statins are highly used in cardiovascular prevention. Statin intolerance is the most significant cause of decreased adherence, translating into a higher cardiovascular risk. This systematic review aims to estimate the incidence of muscle adverse events in patients with a history of statin intolerance receiving placebo.

Methods

Database search was performed in CENTRAL, MEDLINE, and EMBASE until March 2023. This systematic review included blinded randomized control trials enrolling patients with a history of statin intolerance who received a placebo. A random-effects meta-analysis was performed. Results were presented in percentages, with 95% confidence intervals (95% CI).

Results

Overall, eight studies with 8095 patients with a history of statin intolerance receiving placebo were included. The muscle adverse events incidence rate was 21.34% (95% CI 13.26–30.63%, 8 studies), and discontinuation due to adverse muscle events was 6.12% (95% CI 1.22–13.70%, 3 studies). The incidence was higher in subcutaneous placebo/sham (41.67%, 1 study) compared to oral placebo studies (22.95%, 6 studies).

Conclusion

In patients previously labeled as statin-intolerant, about a fifth of the patients exhibited muscle symptoms when receiving a placebo. This highlights the

importance of ruling out non-statin-related symptoms to further optimize statin therapy for cardiovascular risk improvement.