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Chocolate intake and risk of clinically apparent atrial fibrillation: the Danish Diet, Cancer, and Health Study

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Abstract

Objective To evaluate the association between chocolate intake and incident clinically apparent atrial fibrillation or flutter (AF).

Methods The Danish Diet, Cancer, and Health Study is a large population-based prospective cohort study. The present study is based on 55 502 participants (26 400 men and 29 102 women) aged 50–64 years who had provided information on chocolate intake at baseline. Incident cases of AF were ascertained by linkage with nationwide registries.

Results During a median of 13.5 years there were 3346 cases of AF. Compared with chocolate intake less than once per month, the rate of AF was lower for people consuming 1–3 servings/month (hazard ratio (HR) 0.90, 95% confidence interval (CI) 0.82 to 0.98), 1 serving/week (HR 0.83, 95% CI 0.74 to 0.92), 2–6 servings/week (HR 0.80, 95% CI 0.71 to 0.91) and ≥ 1 servings/day (HR 0.84, 95% CI 0.65 to 1.09; p-linear trend <0.0001), with similar results for men and women.

Conclusions Accumulating evidence indicates that moderate chocolate intake may be inversely associated with AF risk, although residual confounding cannot be ruled out.

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Contributors: KO is responsible for the overall content

as a guarantor, contributed to the conception and design of the work, acquisition and interpretation of the data, and critical revision of the manuscript for important intellectual content. EM contributed to the conception and design of the work, interpretation of data for the work and drafting of the manuscript. MBJ conducted the analysis and contributed to the interpretation of data and revising the manuscript. AT contributed to the conception or design of the work and the acquisition of data for the work. HSC revised the manuscript. MAM contributed to the conception and design of the work, interpretation of the data and critical revision of the manuscript for important intellectual content. All authors approved the final version to be published and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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