Letter by González-Salvado et al Regarding Article, “Extravirgin Olive Oil Consumption Reduces Risk of Atrial Fibrillation: The PREDIMED (Prevención con Dieta Mediterránea) Trial”

To the Editor:

We have read with interest the recent published clinical trial of Martínez-González et al., regarding the effect of a daily intake of extravirgin olive oil (EVOO) in the context of a Mediterranean diet to reduce the risk of atrial fibrillation (AF), as opposed to a Mediterranean diet supplemented with nuts or a low-fat diet.

We believe that this excellent article provides valuable information about primary preventive strategies, a field in which, so far, there is limited existing evidence. This article is especially interesting because it concerns a lifestyle factor that can be easily implemented since it should not suppose an excessive cost.

Nevertheless, several aspects related to the nutritional interventions performed remain unclear. First, the authors do not report the specific facts about the use of EVOO supplementing the Mediterranean diet. Although a minimum of 50 g is regarded as the consumption goal, there are no homogeneous data about the quantity being consumed, allowing a variability that makes it difficult to reach a feasible recommendation. Neither do they specify whether EVOO was consumed raw or cooked, which we find relevant, considering that the high-temperature heating process while cooking could affect its properties.

Second, there is no information about the consumption of EVOO in the remaining groups. Despite their diets not being specifically supplemented with it, it is not mentioned whether EVOO was also used by their participants. If it was not, information about which substitutes to EVOO were used might be relevant.

Third, adherence to both the Mediterranean diet supplemented with EVOO or with nuts was assessed by measuring analytic parameters during follow-up, whereas no specific tool, apart from the food-frequency questionnaires, was apparently used to assess the correct adherence to the low-fat diet. This could have biased results through the so-called observer effect, causing a better adherence in the groups where some particular analyses were performed to ensure full accomplishment.

Finally, because AF was not a primary end point in the trial, we regret that a more strictly stipulated process to detect cases of AF was not performed. Holter monitoring and more frequent evaluations during follow-up could have increased the accuracy of diagnosis. Thus, we consider that the data should be cautiously interpreted.

However, it is undeniable that this work provides valuable information in a field that is accused of a clear lack of evidence, despite the advances that have been made in the comprehension and study of AF. Previous heterogeneous studies have investigated the role of n-3 polyunsaturated fatty acids in the secondary prevention of AF, with conflicting results. The meta-analysis performed by Mariani et al., regarding the effect of diet supplementation with n-3 polyunsaturated fatty acids to prevent recurrent AF or new AF in the context of cardiovascular surgery, provided no evidence of its benefit. But in the field of primary prevention, there are still many unanswered questions. We acknowledge that this study could establish the basis of further trials, considering the impact of modifiable lifestyle elements to prevent its occurrence, as it has been previously proved in other cardiovascular pathologies.

Disclosures

None.

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