



The PREDIMAR Study:

Can a Mediterranean diet enriched with extra-virgin olive oil reduce the recurrence of arrhythmias in patients with atrial fibrillation after catheter ablation?

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Atrial fibrillation (AF) is the most common arrhythmia worldwide, and its prevalence continues to rise with the aging population. Recent research has focused on medication and procedural approaches to manage this condition. However, lifestyle changes, such as dietary modifications, have yet to be widely tested. The PREDIMAR study, a multi-center clinical trial conducted in Spain, investigated the effects of a Mediterranean diet enriched with extra-virgin olive oil (MedDiet + EVOO) on the recurrence of arrhythmias after catheter ablation in patients with AF.

In this trial, 720 adults with paroxysmal and persistent AF who had a history of treatment with catheter ablation were randomized into two groups. One group was advised to follow MedDiet + EVOO, while the other continued with their freely selected diet. The trial monitored all patients for 18 months, with medical visits every 3 to 6 months.

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Researchers found that following a MedDiet + EVOO resulted in a 10% reduction in the risk of tachyarrhythmia recurrence after catheter ablation in the overall studied population. However, this reduction was not statistically significant, meaning it could have been due to chance. Interestingly, the dietary intervention had a statistically significant impact on the subgroup of participants with paroxysmal AF, reducing the risk of tachyarrhythmia recurrence by 31%.





Why is this important?

The PREDIMAR study, a significant milestone in managing AF, demonstrated that dietary interventions can be effectively implemented on a large scale. While a MedDiet + EVOO did not significantly reduce arrhythmia recurrence for all patients with AF after catheter ablation, it showed promising results for those with paroxysmal AF. This suggests that healthy lifestyle changes, like following a MedDiet, could be very beneficial for managing AF, especially for certain groups. However, more research is needed to fully understand these benefits and determine if they apply to other populations.

Despite this, the study highlights the importance of a healthy diet as a crucial component in the holistic management of AF, offering potential benefits for patients and the healthcare system. For patients, healthier eating habits can improve quality of life by reducing the frequency and severity of AF episodes. For the healthcare system, encouraging dietary changes can lead to better patient outcomes and lower healthcare costs by reducing hospitalizations and complications related to AF. Future studies that combine a MedDiet with weight loss and physical activity might provide even better results for patients with AF.

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The PREDIMAR (PREvención Con Dieta Mediterránea de Arritmias Recurrentes) Trial

Barrio-Lopez, M. May 18, 2024. Heart Rhythm Society 2024

Objective:

Assess the effect of Mediterranean diet (MeDiet) enriched with extra-virgin olive oil (EVOO) on arrhythmia recurrence after catheter ablation in patients with Atrial Fibrillation (AF).

Inclusion criteria:

1. Patients with symptomatic paroxysmal and persistent AF

2. History of catheter ablation



RCT

720 participants

Paroxysmal AF	Persistent AF
431	289



355
Control-free diet



365
MeDiet + EVOO

Follow-up: 18 months

Results:

1. A non-significant reduction in the overall risk of tachyarrhythmia recurrence was observed (**HR 0.90, 95% CI: 0.71-1.15**).
2. In the subgroup of patients with paroxysmal AF, the intervention caused a significant reduction in tachyarrhythmia recurrence (**HR:0.69, 0.48-0.97**).

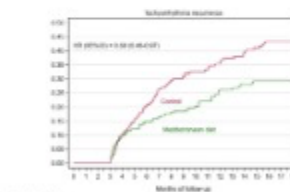


Figure. 18-month cumulative incidence of tachyarrhythmia recurrence in participants with paroxysmal AF in patients by randomized arm of the PREDIMAR trial.

Conclusion:

MeDiet+EVOO reduced the recurrence of atrial tachyarrhythmias after AF ablation in patients with paroxysmal AF

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