



Result of Olive Pomace Oil on Cardiovascular Health

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INTRODUCTION

Olive pomace oil (OPO), which has a high oleic acid content (C18:1) and a variety of minor bioactive components, is a nutritionally important fat. Although numerous *in vitro* and pre-clinical studies have been conducted to focus on some of its distinctive components, the effects of prolonged OPO use on health are unknown. 31 patients with normocholesterolemic and 37 subjects with hypercholesterolemia participated in a randomised, blinded, hybrid, controlled clinical trial. Members engaged in a 3 week disagreement/wash-out period with corn oil before continuing to eat 45 g/day of OPO or sunflower oil (SO) for an extended period of time (CO). Results: All markers related to lipid profile, circulatory strain, and endothelial capability in the two groups were substantially impacted by routine use of OPO thus, with the exception of eNOS levels, which were close to genuine significance due to the impact of oil (OPO thus) ($p=0.083$). After OPO ingestion, there was a decrease in instinctive fat ($p=0.028$) in the two groups, along with an increase in leptin ($p=0.017$) in the hypercholesterolemic group.

DESCRIPTION

In this regard, the Mediterranean Diet (MD) is regarded as one of the most remarkable examples of intelligent eating due to its beneficial effects on chronic non-transmittable diseases like cardiovascular problems, diabetes, obesity, and inflammation. Given its beneficial, protective effect against persistent and severe illnesses, the MD is one of the most astounding focused dietary restrictions. This has led to the completion of a clinical trial that was randomised, dazed, hybrid, controlled, and used OPO to examine several biomarkers linked to cardiovascular disease and related diseases (corpulence, diabetes, and irritation).

The recognisable demonstration of different biomarkers linked to cardiovascular disease and its related pathologies was one of the strengths of this innovative clinical trial carried out with OPO. This method provides a thorough understanding of the impact OPO has on human wellbeing. However, the current focus also had limitations on the blinding of workers because it

was hard to prevent volunteers (familiar with the two oils) from knowing/speculating which oil they were eating in each step given that the variety, smell, and taste of the two oils are unique.

Thus, both normo and hypercholesterolemic participants who regularly used OPO had noteworthy changes in any of the markers related to lipid profile, circulatory strain, and endothelial function. Due to the influence of oil (OPO thus), only eNOS level change was nearly significant ($p=0.083$); further research is necessary to assess the expected impact of OPO on this biomarker, of exceptional importance given the contribution of eNOS on the combination of nitric oxide, the primary component responsible for vasodilation and maintenance of vascular tone [1-5].

CONCLUSION

This result was corroborated by a significant reduction in natural fat in the two groups following OPO consumption ($p=0.028$), along with an increase in leptin level in the hypercholesterolemic group ($p=0.017$). These findings point to a potentially beneficial effect of supported OPO use on biomarkers that could significantly alter cardio-metabolic health. However, additional clinical trials on at-risk populations are anticipated to confirm these health effects.

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DECLARATION OF CONFLICTING INTERESTS

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REFERENCES

1. Bounegru AV, Apetrei C (2021) Evaluation of olive oil quality with electrochemical sensors and biosensors: A review. *Int J Mol Sci* 22(23): 12708.

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2. Hernáez A, Farras M, Fito M (2013) Olive oil phenolic compounds and high-density lipoprotein function. *Curr Opin Lipidol* 27(1): 47-53.
3. Sealy N, Hankinson SE, Houghton SC (2000) Olive oil and risk of breast cancer: A systematic review and dose-response meta-analysis of observational studies. *Br J Nutr* 125(10): 1148-1156.
4. Hijawi T (2021) Characterizing of oil quality and fatty acid profiles of old olive trees in palestine. *J Oleo Sci* 70(11): 1585-1606.
5. Fabiani R, Vella N, Rosignoli P (2021) Epigenetic modifications induced by olive oil and its phenolic compounds: A systematic review. *Molecules* 26(2): 273.