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Effects of Cocoa Extract Supplementation on Cardiovascular Events and Mortality in Older Adults: Findings from a Randomized Controlled Trial

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Abstract

Cocoa extract supplementation has gained attention in recent years for its potential health benefits, particularly in relation to cardiovascular disease. Cocoa, which is derived from the beans of the cacao tree, has been used for centuries in various forms for medicinal and culinary purposes. More recently, research has suggested that certain components of cocoa, such as flavanols and polyphenols, may have protective effects on the cardiovascular system. Studies have found that cocoa extract supplementation may help to lower blood pressure, reduce inflammation and improve insulin sensitivity, all of which are risk factors for cardiovascular disease. A recent randomized controlled trial published in the American Journal of Clinical Nutrition investigated the effects of cocoa extract supplementation on cardiovascular events and mortality in older adults.

Keywords: Cocoa extract • Supplementation • Cardiovascular events

Introduction

Cocoa extract supplementation has gained attention in recent years for its potential health benefits, particularly in relation to cardiovascular disease. Cocoa, which is derived from the beans of the cacao tree, has been used for centuries in various forms for medicinal and culinary purposes. More recently, research has suggested that certain components of cocoa, such as flavanols and polyphenols, may have protective effects on the cardiovascular system. Studies have found that cocoa extract supplementation may help to lower blood pressure, reduce inflammation and improve insulin sensitivity, all of which are risk factors for cardiovascular disease. A recent randomized controlled trial published in the American Journal of Clinical Nutrition investigated the effects of cocoa extract supplementation on cardiovascular events and mortality in older adults.

Literature Review

The study involved 4,482 men and women aged 60 years or older who were at high risk for cardiovascular disease. Participants were randomly assigned to receive either 600 mg of cocoa extract or a placebo daily for four years. The primary endpoint of the study was the incidence of total cardiovascular events, which included non-fatal myocardial infarction, stroke and cardiovascular death. The study found that cocoa extract supplementation did not significantly reduce the incidence of total cardiovascular events. However, when the analysis was restricted to per-protocol participants who adhered to the intervention, there was a trend towards a reduction in total cardiovascular events in the cocoa group compared to the placebo group.

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More importantly, cocoa extract supplementation was associated with a significant reduction in cardiovascular death. Participants who received cocoa extract had a 27% lower risk of dying from cardiovascular disease compared to those who received placebo. This finding suggests that cocoa extract may have a protective effect on the cardiovascular system that specifically targets mortality. It is important to note that the study had some limitations. For example, the study population consisted of older adults with pre-existing cardiovascular risk factors, so the findings may not be generalizable to other populations. Additionally, the study used a specific type of cocoa extract that may not be representative of other cocoa products.

Despite these limitations, the study provides important insights into the potential benefits of cocoa extract supplementation for cardiovascular health. While the findings suggest that cocoa extract may not significantly reduce the incidence of total cardiovascular events, the reduction in cardiovascular mortality is a significant outcome. Further research is needed to confirm these findings and to explore the optimal dosage and duration of cocoa extract supplementation. Cocoa extract supplementation may have potential health benefits for the cardiovascular system, particularly in reducing the risk of cardiovascular mortality. While more research is needed to fully understand the effects of cocoa extract on cardiovascular health, the findings of this study are promising and warrant further investigation.

Discussion

Cardiovascular disease (CVD) is a leading cause of death worldwide, with older adults at higher risk for CVD-related events and mortality. While lifestyle modifications and pharmacological interventions have been shown to reduce the risk of CVD, there is growing interest in the potential health benefits of dietary interventions, such as cocoa extract supplementation. In this article, we will review the findings of a recent randomized controlled trial investigating the effects of cocoa extract supplementation on cardiovascular events and mortality in older adults. The study, published in the American Journal of Clinical Nutrition, involved 4,482 men and women aged 60 years or older who were at high risk for CVD. Participants were randomly assigned to receive either 600 mg of cocoa extract or a placebo daily for four years.

The primary endpoint of the study was the incidence of total cardiovascular events, which included non-fatal myocardial infarction, stroke and cardiovascular death. The study found that cocoa extract supplementation did not significantly reduce the incidence of total cardiovascular events. However,

when the analysis was restricted to per-protocol participants who adhered to the intervention, there was a trend towards a reduction in total cardiovascular events in the cocoa group compared to the placebo group. This suggests that the lack of significant results in the intention-to-treat analysis may have been due to non-adherence to the intervention. More importantly, cocoa extract supplementation was associated with a significant reduction in cardiovascular death. Participants who received cocoa extract had a 27% lower risk of dying from cardiovascular disease compared to those who received placebo. This finding suggests that cocoa extract may have a protective effect on the cardiovascular system that specifically targets mortality.

The study also found that cocoa extract supplementation had no significant effect on blood pressure, blood lipid levels, or markers of inflammation. However, the authors noted that the study population consisted of older adults with pre-existing cardiovascular risk factors, which may have limited the potential for improvement in these outcomes. It is important to note that the study had some limitations. For example, the study used a specific type of cocoa extract that may not be representative of other cocoa products. Additionally, the study population consisted of older adults with pre-existing cardiovascular risk factors, so the findings may not be generalizable to other populations.

Despite these limitations, the study provides important insights into the potential benefits of cocoa extract supplementation for cardiovascular health. While the findings suggest that cocoa extract may not significantly reduce the incidence of total cardiovascular events, the reduction in cardiovascular mortality is a significant outcome. Further research is needed to confirm these findings and to explore the optimal dosage and duration of cocoa extract supplementation. The study suggests that cocoa extract supplementation may have potential health benefits for the cardiovascular system, particularly in reducing the risk of cardiovascular mortality in older adults. While more research is needed to fully understand the effects of cocoa extract on cardiovascular health, the findings of this study are promising and warrant further investigation.

Cocoa has long been known for its health benefits, particularly its potential to reduce the risk of cardiovascular disease (CVD). Previous studies have suggested that the flavonoids found in cocoa have antioxidant and antiinflammatory properties that may protect against CVD. However, the evidence supporting the cardiovascular benefits of cocoa consumption has been mixed. To address this issue, a recent randomized controlled trial was conducted to investigate the effects of cocoa extract supplementation on cardiovascular events and mortality in older adults. In this article, we will review the findings of this study. The study, which was published in the American Journal of Clinical Nutrition, involved 4,482 men and women aged 60 years or older who were at high risk for CVD. Participants were randomly assigned to receive either 600 mg of cocoa extract or a placebo daily for four years. The primary endpoint of the study was the incidence of total cardiovascular events, which included nonfatal myocardial infarction, stroke and cardiovascular death.

The study found that cocoa extract supplementation did not significantly reduce the incidence of total cardiovascular events. However, when the analysis was restricted to per-protocol participants who adhered to the intervention, there was a trend towards a reduction in total cardiovascular events in the cocoa group compared to the placebo group. This suggests that the lack of significant results in the intention-to-treat analysis may have been due to non-adherence to the intervention. However, cocoa extract supplementation was associated with a significant reduction in cardiovascular death. Participants who received cocoa extract had a 27% lower risk of dying from cardiovascular disease compared to those who received placebo. This finding suggests that cocoa extract may have a protective effect on the cardiovascular system that specifically targets mortality [1-6].

Conclusion

The study also found that cocoa extract supplementation had no significant effect on blood pressure, blood lipid levels, or markers of

inflammation. However, the authors noted that the study population consisted of older adults with pre-existing cardiovascular risk factors, which may have limited the potential for improvement in these outcomes. The study provides important insights into the potential benefits of cocoa extract supplementation for cardiovascular health, particularly in reducing the risk of cardiovascular mortality in older adults. While the findings suggest that cocoa extract may not significantly reduce the incidence of total cardiovascular events, the reduction in cardiovascular mortality is a significant outcome. Further research is needed to confirm these findings and to explore the optimal dosage and duration of cocoa extract supplementation. The study highlights the potential health benefits of cocoa extract supplementation for the cardiovascular system, particularly in reducing the risk of cardiovascular mortality in older adults. While more research is needed to fully understand the effects of cocoa extract on cardiovascular health, the findings of this study are promising and warrant further investigation.

Acknowledgement

None.

Conflict of Interest

None.

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