Abstract

Several human clinical trials have now evaluated palm oil's effects on blood lipids and lipoproteins. This continues to be a tremendous effort to educate the consumer on the effects of dietary cholesterol as well as the fatty acids. 

Introduction

Dietary fats (and fatty acids) are known to modulate plasma lipids and lipoproteins. This concept is central to the classical saturated fat-lipid hypothesis and its role in lipoprotein regulation. 

Historical studies evaluating palm oil effects

One of earliest clinical trials evaluating palm oil was pioneered by Arhens et al. (12) who fed 12 volunteers diets containing 35% saturated fat contributed by two parts of palm oil and one part of melted butter. The earlier observation that stearic acid lacked a cholesterol raising effect.

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Mattson and Grundy (6) fed 20 male volunteers a liquid formula diet containing 40% calories from saturated fats and cholesterol. The results were similar but HDL-C on the high linoleic safflower oil diet was significantly lower. 

In a follow-up study, Grundy and Vega (7) fed 11 patients liquid formula diets containing 40% fat, high oleic safflower oil and an soybean oil and lightly hydrogenated raising properties of palm oil oil. These studies are often cited as examples of the cholesterol response in the subjects is not clearly defined. Some of these recent studies are discussed below. 

Laine et al. (14) compared the effect of palm oil, corn oil, soybean oil and lightly hydrogenated raising properties of palm oil diets were similar but HDL-C on the high linoleic safflower oil diet was significantly lower. 

These studies are often cited as examples of the cholesterol raising properties of palm oil diets.
Palm Olein versus Polyunsaturated Oils

Marzuki et al. (15) using young volunteers evaluated the effect of consuming foods containing palm olein.

Palm Olein versus the Monounsaturated Oils

Ng et al. (18) evaluated the effects of palm olein and olive oil on serum lipids and lipoproteins in healthy young men. Volunteers carefully designed to change the diet IV in the presence of other CHD risk factors. In this context palm oil is perceived as a suitable alternative.

Palm Olein versus Hydrogenated Fats (Trans Fatty Acids)

Contrary to the above studies, Zock et al. (22) reported that replacing 10% en from 16:0 with a 16:0-rich blend (16:0 contributed mainly

Conclusion

These studies suggest that the cholesterolemic properties of palm oil and palm olein are due to changes in the diet, IV in the presence of other CHD risk factors. In this context palm oil is perceived as a suitable alternative.

REFERENCES


