

UGC MAJOR RESEARCH PROJECT

F.NO.41-691/2012(SR)

2012-2015

PRINCIPAL INVESTIGATOR

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STUDY ON THE HYPOCHOLESTEROLEMIC EFFECT OF SELECTED HERB ON ADULT PATIENTS SUFFERING FROM MILD HYPERCHOLESTEROLEMIA

Adulthood is the period in human lifespan that complete physical and intellectual maturity have been attained. There is a gradual declines in the body functioning which accelerate as old age is reached. Changes in lifestyle and dietary pattern, lack of physical activity and inadequate relief of stress are key contributors in the development and progression of preventable chronic diseases, including obesity, type 2 diabetes mellitus, hypertension, several types of cancers and cardiovascular diseases in adults. Hypercholesterolemia is the presence of high levels of cholesterol in the blood. It is not a disease but a metabolic derangement that can be caused by many diseases, notably cardiovascular disease. Hypercholesterolemia is treated by reducing dietary cholesterol intake, administration of certain medications, and rarely with other treatments including surgery and supplementation of cholesterol lowering foods. Mango ginger (*Curcuma amada* Roxb.) is a perennial, rhizomatous, aromatic herb belonging to the family Zingiberaceae. Mango ginger rhizome is a unique spice abundantly used in *Ayurveda* and *Unani* system of medicine and also for culinary purpose in Asian countries. Mango ginger has been used in clinical trials where it has been reported to reduce serum cholesterol in hypercholesterolemic rats. Hence the propose of study aims to find out the hypocholesterolemic effect of Mango ginger (*Curcuma amada* *Roxb.*) on mild hypercholesterolemic patients. The study was conducted in Kottayam district of Kerala. Five hundred subjects were selected for the study. Equal percent (45%) of subjects belonged to 31-45 and 46-60 years. Out of the selected 500 subjects 50 per cent were found to be normal, but there are 36 per cent were overweight and 7 per cent obese.

All the subjects were screened for total cholesterol. Forty five mild hypercholesterolemic subjects were selected for the study. Fifteen mild hypercholesterolemic adult patients of experimental group were supplemented with 10g of mango ginger pickle on daily basis for a period of 90 days. Another fifteen mild hypercholesterolemic patients given nutrition education and the control group of fifteen mild hypercholesterolemic patients didn't get any treatment. The lipid profile level of the experimental group had decreased and HDL level gets improved after supplementation of Mango ginger for a period of 90 days. The decrease was statistically significant at five percent level. At the same time the decrease in lipid profile of control group was very low which was not statistically significant. The nutritional knowledge is improved and total cholesterol level of experimental group is decreased after nutrition education. Seven recipes were incorporated with Mango ginger to popularize the product. Hence it is concluded that the selected herb Mango ginger (*Curcuma amada Roxb.*) was effective in controlling mild hypercholesterolemia.