



Research Highlight

HOW CAN NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) BE PREVENTED?

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Non-Alcoholic Fatty Liver Disease (NAFLD) is a disease in which fats in liver get accumulated in the absence of excessive alcohol consumption. This disease is reported to be correlating with obesity, diabetes as well as the metabolic syndrome throughout the world in the 21st century¹.

This disease is quickly becoming the most widespread cause of chronic health problems. It can also lead towards steatohepatitis, cirrhosis, fibrosis in addition to liver cancer as a consequence of excessive as well as continuous accumulation of fat in liver that causes high oxidative stress and inflammation².

However, this disease can be prevented by means of lifestyle modification which is considered as the keystone of treatment of NAFLD, which involves sustained weight loss 5-10%, diet modification as well as amplified physical activity³. Accordingly, modifications in the diet are one of the best ways for prevention or cure this ailment. Diet consisting of functional foods ingredients including dietary fibers, polyunsaturated fatty acids as well as phenolic compounds is beneficial to

treat or protect from NAFLD.

In this regard, purslane is a potential option which is also known as “Rejlah”, in Arabic. It is most famous herb and contains sufficient amounts of biologically active compounds; glutathione, minerals, phenolic in addition to flavonoids compounds⁴. While garden cress seeds are also precious commodities which are rich source of phytochemicals. In addition, they are also highly nutritive and contain several vitamins and minerals including ascorbic acid, calcium, iron plus polyunsaturated fatty acids⁵.

These facts urged scientists for conducting a new research in order to examine the protective effect of two functional foods in form of bread containing purslane seeds meal and garden cress seeds against NAFLD. For this purpose, high fat and cholesterol diet were employed to induce NAFLD in rats for six weeks. Afterwards, scientists evaluated the plasma lipid profile, malondialdehyde as well as liver and kidney (creatinine and urea) functions and performed histological analysis of liver tissue.

In this research, purslane bread and garden

Key words:

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crisp bread provided satisfactory results and prevented weight gain, enhanced the plasma lipid profile and prevented hepatic lipid accumulation effectively in NAFLD model in rats as well. Moreover, they also declined lipid peroxidation, improved liver and kidney functions as well as showed hypoglycemic effect. However, purslane bread gave better results regarding prevention of hepatic lipid accumulation as compared to garden crisp bread. It is suggested that purslane bread can be used as a functional food in order to prevent the NAFLD.

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