J. Exp. Zool. India Vol. 14, No. 1, pp. 161-164, 2011 *ISSN 0972-0030*

INHIBITION OF LIPID PEROXIDATION IN FISH BY GINGER (*ZINGIBER OFFICINALE*) - AN *IN VITRO* STUDY

Changam Sheela Sasikumar, Prasanna Valavanur Shekar and Soma Guhathakurta

Kotturathu Mammen Cherian Heart Foundation, Frontier Lifeline, TICEL Biopark, Chennai - 600 113, India
e mail: sheelsasic@yahoo.co.in

(Accepted 4 November 2010)

ABSTRACT – Fish and other marine organisms are rich sources of polyunsaturated fatty acids known as the omega-3 or n-3 fatty acids. Epidemiological studies have shown an inverse relation between the dietary consumption of fish containing n-3 fatty acids and mortality from coronary heart disease. However, due to their high degree of unsaturation, they are highly susceptible to lipid peroxidation. Regular consumption of peroxidised oils may represent a risk factor for the induction and development of atherosclerosis. Protecting PUFA from peroxidation is essential to utilize their beneficial effects in health and in preventing disease. Natural dietary antioxidants can protect the against the damages caused by reactive oxidants. In the present study the effect of addition of ginger on fish lipid peroxidation during normal cooking process was studied. The results of the study suggest the possible nutraceutical role of ginger against the oxidative stress and can be used as effective antioxidant for food preparations.

Key words : Lipid peroxidation, ginger, fish homogenate, reducing power, polyphenols.