

INTRODUCTION

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Large acute doses or chronic exposure to toxic agents can overpower to the antioxidant defense system and cause hepatic damage. Natural or synthetic compounds having antioxidant properties can scavenge the free radicals which damage lipid, protein, cell membrane and DNA. Their removal prevent the development of certain diseases.

As in much human diseases the environmental and genetic factors play the most critical role in the biological alterations.

Many of the chronic diseases that affect human have an uneven geographic distribution (**Weisburger, 1991**). Although the general perception that several diseases, specially the various types of cancer, often result from an exposure to toxic environmental such as agricultural chemicals, pesticides, herbicides, fungicides or even some food additives. The high incidence of coronary heart disease and cancer of the breast, prostate, pancreas, colon, ovary, liver and endometrium is often correlated with high. fat, high cholesterol, low fiber diets and the consumption of fried foods.

Many herbal remedies individually or in combination with different formulations such as leaf, powder, pastes, decoctions and infusions etc. had been recommended to treat various diseases.

Environmental pollutants containing free radical or toxins that generate free radicals also play an important role. In fact, radical production by such xenobiotics appears to be the most important mechanism in vivo that ultimately causes pathological damage.

Cholesterol presents a great health hazard when its consumption is unduly increased. Hyperlipaemia is a gross derangement in metabolism starting from the rare heredofamilial hypercholesterolemia up to the widespread adult condition. Hypercholesterolemic arteriopathies whether coronary or cerebral take the biggest toll of middle aged and elderly deaths. The progress of civilization, intake of fatty diets, lack of exercise, smoking habits, and mental stress participate in hypercholesterolemia and the resultant arteriopathies.

Although these mentioned exogenous factors play an important role in increasing the incidence of these biochemical phenomena, yet other significant endogenous conditions participate in its etiology. Idiopathic hypercholesterolemia is a term employed to signify the increase in cholesterol haematological levels without pinpointing its actual pathogenesis. This syndrome of micro and macro vital chemical processes remains an enigma.

Antioxidants had important role in decreasing serum lipids and retarding atherosclerosis. The observational epidemiological studies have suggested that individuals with high dietary antioxidant intake have lower risks of coronary heart disease (CHD) which remains the leading cause of death in most countries (**Buring and Hennekens, 1997**). Diet rich in fruits and vegetables are associated with decreased risk of (CHD) and cancer.

The current study aimed to evaluate the prophylactic and curative effect of some natural antioxidants eg wheat germ oil, rosemary, evening primrose as well as lovastatin as standard hypolipaeamic agent against hyperlipaemia in albino rats.