



Ameliorative effect of *Raphanus sativus* and *Cassia angustifolia* in Experimentally Induced Hyperlipidemia and Cardiovascular Risk Reduction

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Abstract : Hyperlipidemia is considered to be one of the greatest risk factors of cardiovascular diseases. Increase in number of hyperlipidemic and cardiac patients globally; emphasize the need of new therapies to reduce disease burden. The objective of current study is to investigate effect of *Raphanus sativus* and *Cassia angustifolia* extracts on experimentally induced hyperlipidemia and cardiovascular risk reduction. Phytochemical study of extracts was done as per standard procedures. As per Organisation for Economic Co-operation and Development (OECD) 420 guideline, single dose acute oral toxicity study performed using both extracts. Hyperlipidemia was induced in rats using Poloxamer 407 (P407) and blood samples were collected at 0, 24 and 48 h after P407 administration. Cardiovascular risk was assessed by analysing atherogenic indices. Results indicate that no sign of toxicity was observed with chosen extracts. Significant reduction in total cholesterol (TC), triglyceride (TG), low density lipoprotein (LDL), non HDL-C (non-high density lipoprotein cholesterol) and very low density lipoprotein (VLDL) was observed in extract treated groups of P407 induced hyperlipidemia. Significant decrease in atherogenic indices was observed in extract treated groups. These results were comparable with the results of Atorvastatin treated group. On the basis of results, it is concluded that both the extracts of *Raphanus sativus* and *Cassia angustifolia* were found to ameliorate hyperlipidemia and risk of cardiovascular disorders.

Key words : hyperlipidemia, poloxamer 407, hypertriglyceridemia.

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