

Hyperlipidemia and high blood glucose can be reduced by utilization of poly herbal extracts

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Abstract

Hyperlipidemia is a prevalent metabolic disease resulting from various factors, increases morbidity and mortality. It facilitates the development of cardiovascular diseases, atherosclerosis, myocardial infarction, angina and coronary heart diseases.

Hyperlipidemia model was developed in which rats of five groups were feeded with high fat high sugar diet (3.0 ml/kg/day) for 8 weeks. After three weeks polyherbal extract comprises of ginger (*Zingiber officinale* R.), lemon (*Citrus limon* L.), cucumber (*Cucumis sativus* L.), grapefruit (*Citrus paradise* M.) and cinnamon (*Cinnamomum verum* J.) at dose of 100, 250 and 500 mg/kg/day were administered orally to three groups. The effects of polyherbal extract on sugar level, total cholesterol, triglyceride, high density lipoprotein (HDL), low density lipoprotein (LDL) and very low-density lipoprotein (VLDL) was measured on 0, 21, 33, 45 and 57th day along with histopathological changes in the liver and pancreas at the end of experiment.

The results showed that polyherbal extract significantly decreased blood sugar, total cholesterol, triglyceride, LDL and VLDL, while HDL level was significantly increased in comparison to diet control group. Histopathological studies of liver and pancreas showed that the polyherbal extract was safe and normal architectural structure of cells was well maintained, no hemorrhagic or necrotic changes were found in test groups.

Therefore, it is concluded that poly herbal extract has excellent hypolipidemic and hypoglycemic potential.

Keywords: Blood glucose, *Garcinia kola*, liver enzymes and life expectancy.

Biography

Dr Khizar Abbas is a Ph.D. Pharmacognosy from University of Karachi, Karachi, Pakistan. He is working as Assistant Professor (Pharmacognosy) in Department of Pharmacognosy, Faculty of Pharmacy, Bahauddin Zakariya University Multan. He has expertise in evaluation of locally available medicinal plants for obesity, hyperlipidemia, diabetes, liver problem, pain and inflammation. Here he develops and conducts activity test for hyperlipidemia. The purpose of this research is to develop the new herbal product for the treatment of hyperlipidemia.