

## ABSTRACT

Cholesterol is a type of fat (Lipid) made by the body. It is essential for good health and is found in every cell of the body. However, a high cholesterol level in the blood (hypercholesterolaemia) is associated with an increased risk of various problems, such a coronary heart disease (CHD) and stroke.

Coronary heart disease is the major cause of death. Dietary and pharmacologic reduction in total and LDL cholesterol decrease the risk of coronary events and dietary intervention is the first-line approach. Increasing dietary fiber has been recommended as a safe and practical approach for cholesterol reduction. The chemical constituents especially the secondary metabolites have definite advantages over morphological studies and even the analytical instruments have greatly facilitated such investigations. So in the present study two plants i.e. *Solanum Nigram* and *Solanum Vilosum* from family Solanaceae and *Trigonella Foenum-Graecum* from of *Foenum-Graecum* family were taken and analyzed to prove their cholesterol lowering effect.

*Trigonella Foenum-Graecum* is an aromatic annual herb found wild in Kashmir, the Punjab and the upper Gangestic plain and it is widely cultivated in many parts of India. It contained an alkaloid Trigonelline and an essential oil. Fenugreek is used as an insect repellent.

*Solanum Nigram* is an indigenous plant. Its berries are used in fevers, diarrrahea, eye diseases, hydrophobia. Juice of plant is given in chronic enlargement of the liver piles and in blood spitting. Young shoots are given in skin diseases and also used in psoriasis.

The plants were collected from botanical garden of PCSIR, Labs. Complex Lahore, Pakistan. The fresh plants were first examined to determine their chemical composition. Then fresh plants material were extracted by ethanol. The alcoholic extracts of plants were concentrated in vacuum to a thick solid mass having some liquid fraction. The biological trials were carried out in the university of veterinary and Animal Sciences, Lahore. Cholesterol level of Guine Pigs was estimated at day zero, 15<sup>th</sup> and 30<sup>th</sup> day. First the cholesterol level of Guine Pigs and then these extracts were mixed with the normal diet of Guine Pigs in order to study their cholesterol lowering effect. Which had showed significant results.