INTRODUCTION
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CARICA PAPAYA commonly known as 'PAPITA' in hindustani papaya in english is cultivated throughout India on commercial basis. It belongs to the family of 'CARICACEAE'. Unripe fruit is used as a vegetable while in the ripe state it is taken as a fruit after meals and is considered to be beneficial for health. Its fruit has been described in the old literature of traditional medicine and medicinal plants of India to have curative and ameliorative effects in human body in different diseases e.g. remedy for worms, wounds and ulcers, astringent to bowels, aphrodisiac, stomachic, appetizer, digestive, carminative, increase 'kapha' and 'Vata' removes biliousness, cures insanity, aggniuttejaka and udararogaghani (specially in liver and spleen disease), cardiotonic, diuretic. cures inflammation and enlargement of spleen, removes urinary concretion, relieves obesity, psoriasis etc. The fruit and the seeds of C.papaya are said to be vermifuge and mostly used as emmenagogue. It is a popular belief that its seeds may cause abortion. The pulp and seed of the fruit possess significant antifertility and anti microbial properties.

The pharmacological action of its alkaloid (CARPAIN HYDROCHLORIDE) has been listed as cardiotonic and diuretic. Perusal of literature reveals that lot of work has been done on the plant from the point of view of its chemical analysis and pharmacological action of its alkaloid carpain. Till now,
there are few reports on fruit regarding the biochemical effects exerted after its regular intake either as vegetable or as ripe fruit in the normal rabbit.

Recently, the ripe and the unripe fruit pulp had shown remarkable decrease in serum total cholesterol (STC), VLDL-cholesterol (VLDL-C) and triglyceride (TG) levels while plasma phospholipids (PL) and (HDL-C) levels were found to be increased. C.papaya ripe fruit pulp had also shown a lowering of STL, STC, TG, VLDL-C, LDL-C and first raised then lowered HDL-C, PL levels in CCI$_4$ treated hyperlipidemic albino rabbits.

It has also prevented the hemolytic changes caused by free radical changes brought about by CCI$_4$. Correlation between serum cholesterol, triglyceride and atherosclerosis is well established. Prolonged elevated levels of serum cholesterol (STC), very low density lipoprotein cholesterol (VLDL-C) and low levels of high density lipoprotein cholesterol (HDL-C) are attributed to the premature or more severe atherosclerosis.

The myocardial infarction is the result of the extension of ischaemic process due to dimunition of cornory perfusion at particular time with the result that myocardial substrate supply and oxygenation to subcelluar enzyme is impaired producing necrosis mainly due to atherosclerosis of coronory vessels. The atherosclerosis development is due to many
perdisposing factors such as hypertension, hyperlipidemia, cigarette smoking, male sex and diabetes mellitus. There is a close association between the plasma lipoprotein profile cholesterol and morbidity and mortality from coronary atherosclerosis.

There are also unequivocal data demonstrating that the lowering of plasma cholesterol in human, will have beneficial effect on reducing the incidence of atherosclerosis and its sequelae. In recent times many drugs, chemical and dietary methods had been tried to reduce coronary artery diseases.

As Carica papaya fruits had been shown to have hypolipidemic effect in normal and CCl₄ treated hyperlipidemic albino rabbits, it may have the role in prevention of atherosclerosis which may be due to hyperlipidemia. Moreover as C. papaya has been described in the old literature of traditional medicine to have cardiotonic and diuretic effects as well as reliever of obesity. The present study has been designed to assess the efficacy of C papaya fruit pulp on STC, TG, VLDL-C, LDL-C, PL, HDL-C, Lipid peroxide, superoxide dismutase, CPK, LDH SGOT levels in hyperlipidemic animals. It is further proposed to find out whether regular intake of fruit pulp provide any protection against isoproterenol (IPT) induced myocardial infarction. It is also proposed that an attempt will be made to fractionate the active substance/substances present in pulp responsible for hypolipidemic and tissue protective effects.