

**CARDIOPROTECTIVE EFFECT OF *NELUMBO NUCIFERA*
LINN., LEAF EXTRACT ON ALUMINIUM CHLORIDE
INDUCED TOXICITY IN ALBINO RATS**

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Heavy metals are important toxicants known to exerts adverse effect in human and animals due to exposure and accumulation in the body. This has a great concern both at personal and public health level. The adverse effect of the absorbed and accumulation of heavy metals include neurological, cardiological and haematological system. In order to determine the effect to aluminium on heart tissues of experimental animals, male albino rats (b/w 150-175gm) were taken and divided in to four groups (n= 6), Group I-normal control rats, Group - II- Aluminium Chloride treated rats (35mg/kg of bw), Group III- Aluminium Chloride and Nelumbo Nucifera treated rats (200mg/kg of bw), Group IV- Plant extract alone treated rats. The dosage were given over a period of 21 days were investigated for biochemical findings, which showed that the elevation of Protein, Cholesterol, Triglycerides, AST, ALT and reduction of enzymatic antioxidant Catalase and Glutathoine peroxidase on aluminium chloride treated groups and these levels retrieved to normal when treated with plant extract. The result suggested that the extract of Nelumbo Nucifera possesses potential Cardioprotective activity may be due to the presence of Phytochemicals such as Alkaloids, flavonod and Phenols etc.,

INTRODUCTION

The Heart is a small things, but desire a great matter. The heart itself needs energy to do its work pumping blood. Blood from the left Ventricle enters the aorta, the very first branches from the aorta are small 'feeder' arteries called coronary arteries, which turn back to supply blood to the heart muscle, bringing vital nutrients and oxygen to the heart. Using there nutrients, the heart muscle shortens or contracts and the heart becomes smaller. Blood from inside the chambers is then pumped out with some force (Simon *et al.*, 2000).

Heart Diseases

Heart disease is the leading cause of death. Many of the risk factors for heart disease are influenced by life style. For example, smoking, lack of exercise and consumption of a high fat diet all contribute to risk. A healthy diet is important for both prevention and treatment of cardiovascular disease. It is essentially a clinical syndrome of characteristic chest pain produced by increased work of the heart. Rest usually relieves it. In most cases, it

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