



Cardioprotective and Positive Inotropic Action of Seeds of *Linum usitatissimum* in Congestive Heart Failure

Pravin Tirgar*, Limbasiya Kalpesh

School of Pharmacy, RK University, Rajkot, Gujarat, India

Abstract : Congestive heart failure is, costly and deadly disease, is one of the leading causes of hospitalization and death worldwide. It is third most common cardio-vascular disease affect almost 2% of world population. Objective of present study is find out Cardioprotective and positive inotropic action of Seeds of *Linum usitatissimum* in Congestive Heart Failure. Methanolic extract and oil of seeds of *Linum usitatissimum*(MELU and OLU) were separated using soxhlet. Beneficial effects of methanolic extract and oil of seeds of *Linum usitatissimum* were carried out by doxorubicin (15mg/kg, i.p. within 3 weeks) to induce congestive heart failure in Wistar rat (*in vivo* study). Following parameters like ECG recording, cardiac bio-markers like CPK-MB, LDH and SGOT and cytosolic Ca^{2+} level were estimated. In doxorubicin induced congestive heart failure both MELU and OLU showed significant increased in cytosolic Ca^{2+} level while significantly decreased QT interval as well as cardiac bio-markers. Present research work emphasizes that the seeds of *Linum usitatissimum* is beneficial in management of congestive heart failure.

Keywords: Cardioprotective, Inotropic Action, *Linum usitatissimum*, Congestive Heart Failure.

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