PRELIMINARY PHYTOCHEMICAL ANALYSIS AND THROMBOLYTIC SCREENING OF *LUFFA CYLINDRICA LINN.* FRUITS AN *IN-VITRO* STUDY

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ABSTRACT:

The subject of phytochemistry or plant chemistry has developed in recent years as a distinct discipline, somewhere between natural product organic chemistry and plant biotechnology and is closely related to both. It is concerned with the enormous variety of organic substances that are elaborated and accumulated by plants and deals with chemical structures of these substances; their biosynthesis; turnover and metabolism; their natural distribution and biological functions.

Atherothrombosis is a major cause of global life threatening heart and cerebral diseases. Atherothrombosis characterized by atherosclerotic lesion disruption with superimposed thrombus formation is the major cause of acute coronary syndromes (ACS) and cardiovascular death. It is the leading cause of mortality in the industrialized world.

Considering this, present study was designed to investigate thrombolytic activity of

ethanolic extract of Luffa cylindrica. The ethanolic extract was found to have significant thrombolytic activity(45%) compared to the effect of Streptokinase (57%) used as a positive control and water (0%) used as a negative control. Preliminary phytochemical screening of the extract showed the presence of carbohydrates, proteins, steroids, flavonoids, terpenoids and tannins in fruits of Luffa cylindrica Linn. one of which has thrombolytic properties.

Keywords: Thrombolytic activity, streptokinase, phytochemical screening, Luffa cylindrica, ethanol.