

Pharmacological Actions of *Vaccinium Corymbosu*, an Edible Fruit and its Effectiveness as Anti-hypertensive Agent

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ABSTRACT

The frequency of cardio-vascular illnesses and their death rate have long been a public health concern around the world, where the most prevalent ailment is hypertension, in which the blood vessels' walls have a possibly elevated blood pressure. While conventional medicines have helped to lower the mortality rate to some extent, they have also left behind significant side effects that have resulted in further difficulties. One strategy for resolving this issue is to employ natural therapies for prevalent ailments, and so *Vaccinium corymbosu*, i.e., Blueberry fruit extract, has been shown to have potential antihypertensive characteristics in Sprague-Dawley (SD) rats.

Keywords: *Vaccinium corymbosu*, Hypertension, Atrial contractions, SD Rats

OBJECTIVES

This study has been designed to investigate the role of *Vaccinium corymbosui*.e. Blueberry fruit extract in controlling atrial blood pressure in Sprague-Dawley (SD) rats under controlled conditions.

STUDY DESIGN

Experimental.

PERIOD

December 2018- July 2019.

METHOD

The isolated atrial preparation of SD rats was treated with a crude ethanolic extract of *Vaccinium corymbosu* fruit to reduce the force and rate of spontaneous atrial contractions in this investigation. It also resulted in dose-dependent vasodilation in isolated rat aortic ring preparations previously vasoconstrictor by phenylephrine and high K⁺.

RESULTS

Vaccinium corymbosum's relaxation curve was partly blocked, indicating the participation of a Nitric oxide (NO)-mediated mechanism. The speculative study hypothesized that the extract had the ability to lower blood pressure via inhibiting calcium influx via calcium channels, releasing calcium from intracellular reserves, or by alternative mechanisms such as nitric oxide-mediated pathways.

CONCLUSION

It was concluded that edible herb *Vaccinium corymbosum* has potentials to control atrial blood pressure and can be used as one of the therapies in future to cure CVDs.