

**Evaluation of Antidiabetic Activity and Antioxidant Activity of Ethanolic Extract of *Withenia Somenifera* Linn**

**Madhu S<sup>1\*</sup>, Sundararajan R<sup>2</sup>, Ashwin R V<sup>3\*</sup>, Mohamed Yasin A<sup>3</sup>, Kamal Raj M<sup>3</sup>, Praveen Kumar<sup>3</sup>**

<sup>1</sup> Department of Pharmacology, Mohamed Sathak A.J. College of Pharmacy, Medavakkam road, Sholinganallur, Chennai-119.

<sup>2</sup> Department of Pharmaceutical Chemistry, Mohamed Sathak A.J. College of Pharmacy, Medavakkam road, Sholinganallur, Chennai-119.

<sup>3</sup> Mohamed Sathak A.J. College of Pharmacy, Medavakkam road, Sholinganallur, Chennai-119.

\*Corresponding author e.mail: [madhupharm2006@gmail.com](mailto:madhupharm2006@gmail.com)

From National Conference on Interdisciplinary Research and Innovations in Biosciences, NATCON -2018. Post Graduate & Research Department of Biochemistry, Mohamed Sathak College of Arts & Science, Sholinganallur, Chennai-600119, India. 24<sup>th</sup> & 25<sup>th</sup> January 2018.

American J of Bio-pharm Biochem and Life Sci 2018 January, Vol. 4 (Suppl 1): PP31

**ABSTRACT**

The present study is based on the investigation of the phytochemical screening and evaluation of In-Vitro anti diabetic and anti oxidant activity of ethanolic extract of *Withenia somenifera* Linn. The plant is a small, woody shrub of Solanaceae family which grows widely in India. The leaves were used for the process of extraction done by continuous hot extraction process using ethanol as a solvent. The extract was subjected to preliminary phytochemical analysis which is performed by standard methods and it was found to contain constituents such as alkaloids, saponins, glycosides, flavanoids, etc. The In-Vitro anti diabetic activity was performed by inhibition of alpha amylase enzyme, the substances at different concentration were examined and the results are tabulated comparing with the standard Ascorbic acid. The extract is then taken to In-Vitro anti oxidant activity testing by DPPH radical scavenging activity. Comparing anti oxidant activity of the ethanolic extract and Ascorbic acid's activity, the ethanolic extract of *Withenia somenifera* Linn shows dose dependent inhibition of DPPH activity. Thus concluding we have demonstrated the Ethanolic extract of aerial part of *Withenia somenifera* Linn extract exhibiting considerable activity (dose dependent) when compared with reference standard. The present research work showed the validity and the clinical use of Ethanolic extract of *Withenia somenifera* Linn in the control of Anti Diabetic activity and Antioxidant activity.