

A Study To Assess The Effectiveness Of Ivy Gourd (*Coccinia Indica*) In Reduction Of Blood Glucose Level Among Patients With Type II Diabetes Mellitus

*Parvathy O.G, **Kamalam.S, ***Elavarasi

Abstract

Objectives: To find out the level of blood glucose among diabetic population and to assess the effectiveness of Ivy gourd in reduction of blood glucose level. **Method:** A pre experimental (one group- Pre test post test study) **Result:** 't' value is 14.598 in fasting blood glucose and 't' value is 9.442 in postprandial values. P value less 0.0001. **Conclusion:** As a natural plant Ivy gourd has less side effects and is cheaply and easily available.

Keyword: IVY gourd (*coccinia indica*), blood glucose level, diabetes mellitus

Introduction

Diabetes has emerged as a major health care problem in India. According to Diabetes Atlas published by the International Diabetes Federation (IDF), there was an estimated 40 million persons with diabetes in India in 2007 and this number is predicted to rise to almost 70 million people by 2025.2

Need for the study

Health cost for the treatment of this non-communicable disease is a real burden to the nation. India is known as the Diabetic capital of the world. This is a serious issue that the entire health care professional from the top level administrators to bottom level health workers has to concentrate. 3

Objectives

- To find out the level of blood glucose among the population.
- To assess the effectiveness of Ivy gourd in the reduction of blood glucose

- To compare the blood glucose level of the experimental group with the selected demographic variables.

Methodology

Research design: Pre experimental (one group pre test- post test) design.

Settings: The study was conducted in Pillaiyarkuppam, Puducherry.

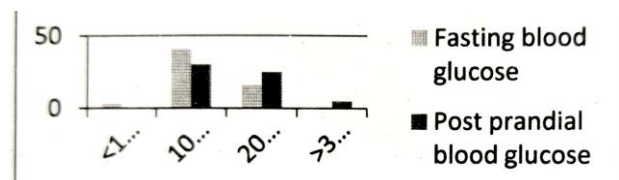
Population: The target populations in this study were middle aged people both male and female who were diagnosed as diabetic and who were not under any treatment.

Sampling Technique:

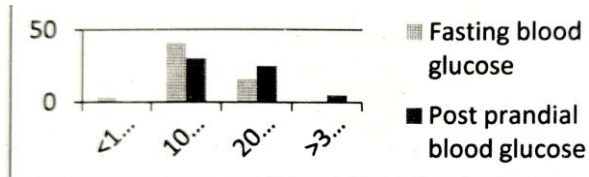
Purposive sampling technique.

Data Analysis

Distribution of subjects by blood glucose level during pre test



Distribution of subjects by blood glucose level during pre test



The paired 't' test value was 14.598 and significance was 0.000. There is significant reduction in the fasting blood glucose levels. The difference in mean value is 40.75 which show that there was reduction in fasting blood glucose level after administration of Ivy gourd. There is significant reduction the blood glucose level in the post prandial blood glucose levels. The difference in mean value is 47.08 which show that there was reduction in post prandial blood glucose level after the administration of Ivy gourd. With 't' value 9.448 and significance of 0.000. Since, there is reduction of blood glucose level both in fasting and post prandial level the null hypotheses H_0 is rejected and research hypotheses is accepted. The pre and post differential statistics of chi square value revealed that, there is no association between the demographic variables and reduction of blood glucose level both fasting and post prandial levels.

Limitations

- The study was conducted on small size of 60.
- The study period was limited to 6 weeks.

Recommendations

- A randomized clinical trial with experimental and control group can be conducted for assessing of Ivy gourd.
- A longitudinal study can be conducted to evaluate the entire changes happening in the reduction of blood glucose and the clinical pathway how Ivy gourd can reduce the blood glucose.
- A comparative study can be conducted to assess the effectiveness of Ivy gourd and bitter gourd.

Conclusion

The diabetic mellitus is the major problem that is affecting the whole population of world. Apart from medications dietary and lifestyle modifications play an important role in the control of blood glucose level. The present study revealed the effectiveness of Ivy gourd in the reduction of blood glucose level. So, this vegetable can be promoted in the dietary management of Diabetes mellitus

References

1. Basavanthappa B T. (2009). Medical Surgical Nursing. 1st edition. Bangalore:Jaypee publications.
2. Basavanthappa B T. (2009). Nursing Research. 1st edition. Bangalore:Jaypee publications.
3. Anurad Kurpad et al.(2008).Effect of Ivy Gourd Extract on Diabetes patient Bulletin of the nutrition foundation of India.January;29(1):1-6.