

# Prevalence of Diabetes in Tirupati Urban Population and the Role of Risk Factors associated with it-A Preliminary Survey

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**ABSTRACT:** A house-to-house inquiry for patients with known diabetes was carried out in Tirupati, a town in Andhra Pradesh. 220 diabetic patients were inquired for a detailed questionnaire regarding the type of diabetes, life style including diet, habits, heredity and exercise. Out of them, 35 (16%) were type I diabetic and 185 (84%) were type II diabetic patients. Out of the type II diabetic patients 130 (70%) fall in the age between 30-45 years and 32 (17.5%) between age 46-55 yrs and 23 (12.5%) are above 55 years. Regarding life style and habit, 45 (24.5%) of the Type II patients have regular habit of both smoking and alcoholic, where 15 (8%) of the type II were either smokers or alcoholics alone. Among the total diabetic patients inquired, 92% of them were unaware about the role of other factors like smoking, alcohol, diet and exercise associated with diabetes. The study highlights a high prevalence of known type II diabetes in developing urban areas like Tirupati and these data are very important in area with most diabetic prevalence. Proper diet, life style and exercise in controlling the prevalence of diabetes must be incorporated into health services. Hence, pharmacists have more roles to play in advising and counseling the diabetic patients during the dispensing of medicines.

**KEY WORDS:** Diabetes, Survey, Risk factors role, Report

## INTRODUCITON

Diabetic mellitus is a chronic incurable condition that affects 10% of the population. The number of diabetic people is expected to rise from present estimate of 150 million to 230 million in 2025 (1). Until the 1970s, it was widely believed that the prevalence of diabetes in India was low compared to the western world. However, recent statistics now show that India has the world's largest diabetic population. It is suspected that in 2020 India is going to be the capital of diabetes as it is reported that 1 out of 4 individuals will be an Indian diabetic in the world while 3 out of 4 will be from the developing countries (2). This rising trend predicts a significant health burden due to diabetes in India. The problem starts developing in the childhood particularly in urban areas where children do not have any kind of physical exercise and consequently the life-style pattern is

altered. The only recreations left for urban children may be to spend long hours on the computer or the cell

phone or watch television (3). Though medicines are available to treat diabetes of type I and type II, the other factors like diet, exercise, and habits in their life style are consider to play an important role in controlling it.

## AIM AND OBJECT IVES

The aim of our study is to conduct a survey on the prevalence of known diabetes in Tirupati urban population and to find out the role of other factors that may be the cause for increase incidence in urban population.

## MATERIALS AND METHODS

Study design: A cross-sectional study was designed in Tirupati urban population belonging to Chittoor

district of Andhra Pradesh. The total population of Tirupati is 2.2 lakhs (census of India, 2001). This is a pilgrim place, a major centre for academic institutions and majority of them depend on tourism economy. Majority of residents of this town are descendents of immigrant people of adjoining areas, who were settled here 30 to 40 years ago. A house-to-house inquiry for patients with known diabetes was carried out with a detailed questionnaire contains of the following are filled up on communication in the local language.

## RESULTS

Out of 220 known diabetic patients surveyed, 35 (16%) were type I diabetic and 185 (84%) were type II diabetic patients. Out of the type II diabetic patients 130 (70%) fall in the age between 30-45 years and 32 (17.5%) between age 46-55 yrs and 23 (12.5%) are above 55 years. Regarding life style and habit, 45 (24.5%) of the Type II patients have regular habit of both smoking and alcoholic, where 15 (8%) of the type II were either smokers or alcoholics alone. 132 numbers of the Type II patients were under the age of 45. Among the total diabetic patients inquired, 92% of them were unaware about the effect of other factors like smoking, alcohol and role of exercise in controlling the diabetes

## DISCUSSION

The prevalence of diabetes type in Tirupati was found to be type II diabetes and from the result, it is clear that number of diabetic population is more

under the age of 45 than the other age groups studied. The survey clearly demonstrates that the patients were unaware about the other factors such as diet, exercise, smoking, alcohol etc., and their role in the prevalence of diabetes. The number of factors contributes towards the increase in the risk of diabetes but there may be a marked difference in the rural and the urban population (3,4). Increase in age and genetic predisposition may be other causes

## CONCLUSION

The study demonstrates the prevalence of type II diabetes and other risk factors associated with it. Therefore, proper diet, life style and exercise in controlling the prevalence of diabetes must be incorporated into health services. Hence, pharmacists have more roles to play by advising and counseling the diabetic patients during the dispensing of medicines. A longitudinal study for the future is planned to identify the unknown diabetic population and the risk factors associated with it.

**Table: Prevalence of diabetes in Tirupati urban population.**

Factors	Type I Diabetes (N=35)	Type II Diabetes (N=185)
30-45 yrs.	10	130
46-55 yrs	07	32
>55 yrs	18	23
Family history of Diabetes	4	45
Non-vegetarian diet	22	138
Smoking	8	93
Alcohol intake	14	89
No regular exercise	25	142

## REFERENCES

1. Paul Zimmet KG, Alberti MM. Nature 2001; 414: 781.
2. Wild S, Roglic G, Green A, Sierre R, King H. Global prevalence of diabetes, estimates for year 2000 and projections for 2030. Diabetes Care 2004;67:1047-53.
3. Mohan V, Shanthirani S, Deepa R, Premalatha G, Sastry NG, Saroja R. Intra urban differences in the prevalence of the metabolic syndrome in Southern India. The Chennai Urban population Study. (CUPS). Diabet Med 2001;18:280-7.
4. Ramchandran A, Snehilata C. Increasing trend in prevalence of diabetes in rural South Asian countries undergoing social transition. Chennai India. Int J Metabol 2004.