



ORIGINAL RESEARCH PAPER

Diabetology

STUDY OF RISK FACTORS IN DIABETES IN HINGHANGHAT TEHSIL.

KEY WORDS:

Nidhi Tilwankar Assistant Professor, Department of Kaumarbhritya, Shubhdeep Ayurved Medical College and Hospital, Indore.

Shanti Manyala Assistant Professor, Department of Agadtantra and Vyavhar Ayurved, Shubhdeep Ayurved Medical College and Hospital, Indore.

ABSTRACT

Introduction- In the 21st century, India is emerging as the world's Diabetes capital. Basically diabetes is a metabolic disorder, but now-a days it is becoming a "Lifestyle Disorder". At present more than 61 million population in India is suffering from this disorder. It becomes very essential to have an assessment of the risk factors prevalent in the area, to have an assessment of the severity of the disease. In this observational cohort study, the prevalence of the risk factors present in the Hinghanghat tehsil, in Maharashtra state has been studied, to create a preventive awareness approach in the population.

Need of the Study-

1. To study the prevalence of DM in the Hinghanghat Taluka.
2. To see the prevalence of risk factors in Diabetes mellitus.

Methodology: This is an observational cohort study including sample size of 300 patients. The area of study for this survey was Hinghanghat Tehsil, Wardha dist. Maharashtra. The age criteria for the study included both male and females above the age of 30 yrs. It was a simple random survey with the study duration of 6 months from the date of approval of the project. The subjects were screened from the NCD OPD of Sub-district hospital Hinghanghat. The subjects were given a questionnaire and were asked to fill accordingly. The data was collected from the questionnaire which was filled by the subjects. **Observations and Discussion:** In the sample size of 300 subjects, 282 people were found with positive family history, 183 people had all other positive physiological factors mentioned in the questionnaire proforma. **Result:** Among 300 people, 282 people had positive family history, 183 people had positive physiological factors and all 300 people were above 30 yrs of age and positive diet factor.

INTRODUCTION-

Diabetes mellitus (DM) is a common lifestyle and metabolic disorder. Diabetes mellitus is rising to an alarming epidemic level. More than 90% of Indian population is becoming the victim of this disorder. India is emerging as world capital of Diabetes. This disorder has emerged as a major health threat. The worldwide prevalence of DM has risen dramatically over the past two decades, from an estimated 30 million cases in 1985 to 285 million in 2010. Based on current trends, the International Diabetes Federation projects that 438 million individuals will have diabetes by the year 2023. Although the prevalence of both type 1 and type 2 DM is increasing worldwide, the prevalence of type 2 DM is rising much more rapidly. Worldwide in the yr. 2012 and 2013, diabetes resulted in 1.5 to 5.1 million deaths per year. Thus Diabetes becomes the 8th leading cause of death worldwide.

There are lot many factors which influence and act as contributory elements in the prevalence of this disorder. It includes dietary habits, sedentary lifestyle, obesity, stress and family history. Once this disorder enters the body, it cannot be completely cured, but according to the treatment modality, its severity can be reduced.

Diabetes mellitus acts as a chain reaction. It also contributes to hypertension, coronary artery disease, stroke and so on. DM is the leading cause of end-stage renal disease (ESRD), nontraumatic lower extremity amputations and adult blindness. With an increasing incidence worldwide, DM will be a leading cause of morbidity and mortality in the foreseeable future. Thus it becomes very crucial to see the risk factors responsible for the prevalence of this disorder.

Need of the Study-

1. To study the prevalence of DM in the Hinghanghat Taluka.
2. To see the prevalence of risk factors in Diabetes mellitus.

Diabetes prevalence across India.

Dibrugarh	3%
Nagpur	4%

Kashmir valley	6%
Coimbatore	8%
Guwahati	8%
Mumbai	9%
New Delhi	10%
Banglore	12%
Kolkata	12%
Hyderabad	17%
Trivandrum	16%
Ernakulum	20%

METHODOLOGY:

This is an observational cohort study including sample size of 300 patients.

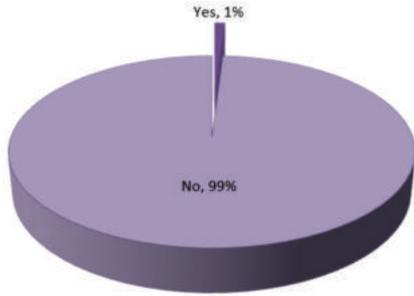
The area of study for this survey was Hinghanghat Tehsil, Wardha dist. Maharashtra. The age criteria for the study included both male and females above the age of 30 yrs. The exclusion criteria for the study included pregnant ladies, patients of some chronic diseases like cancer, AIDS etc.

It was a simple random survey with the study duration of 5 months from the date of approval of the project. The project was approved by the 'Ethical Committee of Symbiosis Distance Education Programme', Pune.

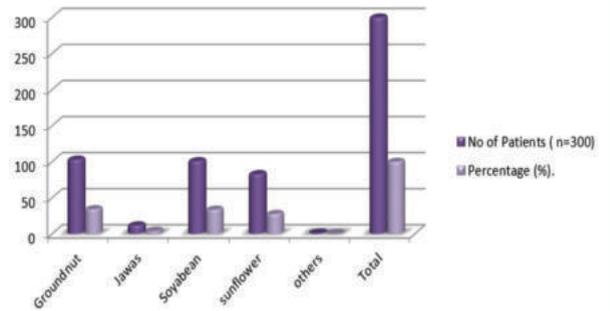
The subjects were screened from the NCD OPD of Sub-district hospital Hinghanghat. The subjects were given a questionnaire and were asked to fill accordingly. The data was collected from the questionnaire which was filled by the subjects.

The subjective parameters included physical activity, duration of exercise, nutrition, type of diet, quantity of oil used in the diet, H/O Tobacco chewing, Alcohol consumption, stress, BMI and family history.

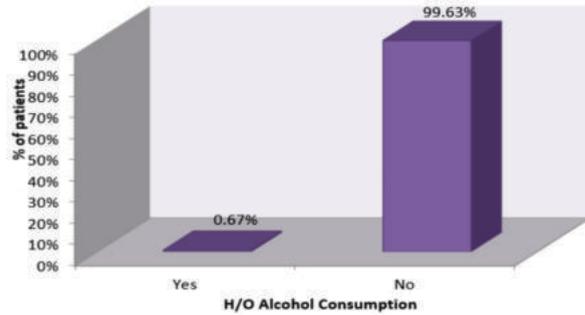
The objective parameters of this study included Blood pressure, Random blood sugar, Fasting and post-meal blood sugar levels.



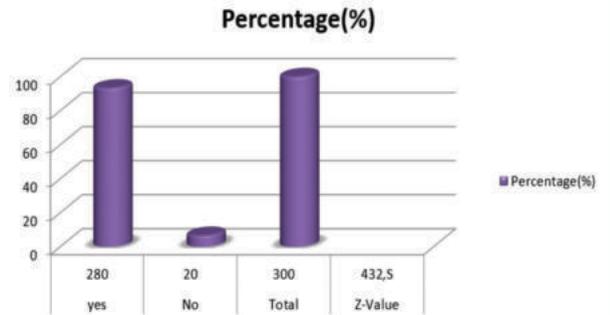
Graph 1: Distribution of people according to their habit of tobacco chewing.



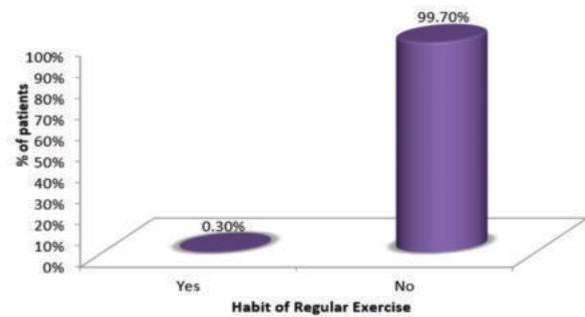
Graph 6 : Distribution of Patients according to type of Oil Used



Graph 2: Distribution of people according to their habit of alcohol consumption.



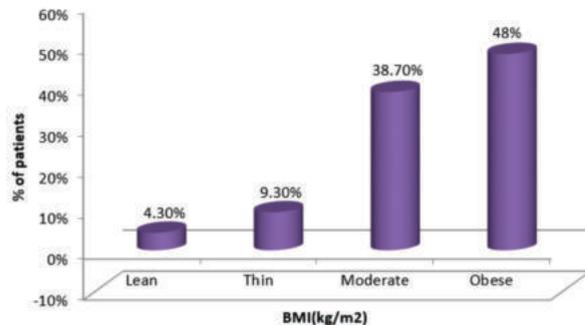
Graph 7: Distribution of People according to their Family history of Type 2 DM .



Graph 3: Distribution of people according to their habit of regular exercise.

Observations:

In the sample size of 300 subjects, 19 people belong to 40-50 yrs and 281 people belong to 51-60 yrs. Among them 13 were males and 287 were females. 3 people were having history of tobacco consumption and 297 were having no history of tobacco. 2 people were having history of alcohol consumption .

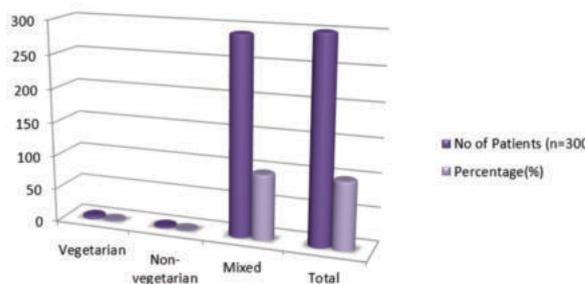


Graph 4 : Distribution of people according to their BMI (kg/m2)

Among the prescribed sample size, only one person has habit of regular exercise and remaining 299 people have no habit of regular exercise. 5 people were vegetarian , 3 were non-vegetarian , 292 were mixed. 12 people were lean 28 were thin , 116 were moderate and 144 were obese according to the BMI. In the given sample size, 280 people had the history of type 2 DM, 20 people had no history of type 2 DM. Among the 300 people , 282 people were found with positive family history , 183 people had all, the positive physiological factors . All 300 people were above 30 yrs of age and positive diet factor.

RESULTS:

- 1) Among 300 people, 282 people had positive family history, 183 people had positive physiological factors and all 300 people were above 30 yrs of age and positive diet factor.
- 2) Hence according to the observations, statistical analysis it can be concluded that 94% people had positive family history, 61% of people had positive physiological factors and 100% people were above 30 yrs age group along with positive diet factor.



Graph 5 : Distribution of people according to their type of Diet.

DISCUSSION:

Diabetes is a prevalent metabolic lifestyle disorder. The prevalence of this disease is increasing day by day. There are many dominant risk factors, which play a key role in the occurrence and pathogenesis of this disease. The aim of this research was to study the prevalence of risk factors and DM in hinganghat taluka. From the survey, it is revealed , that there is prevalence of many risk factors in hinganghat taluka, which can cause DM. At the same time , the common man is unaware regarding the risk factors of Diabetes.

In the hinganghat taluka, out of the total population of 300 people , 93.67% people were of the age group of 51-60 years

in which 95.67% were females .99% and 99.63% population had negative history of Tobacco chewing and alcohol consumption. 99.33% were habitual for consuming mixed type of diet ,with 34.33% of people consuming Groundnut Oil. Out of the sample size of 300 people, 93.33% people had positive family history of Type.2 DM.

This survey study, which is based on general questionnaire, shows that 93.33% people with positive family history of DM, within the age group of 51-60 years were prone to DM. Also 48% and 97.33% of people , who were obese , with regular habit of consuming mixed diet, were also prone for Type. 2 DM.

CONCLUSION:

- 3) Among 300 people, 282 people had positive family history, 183 people had positive physiological factors and all 300 people were above 30 yrs of age and positive diet factor.
- 4) Hence according to the observations, statistical analysis it can be concluded that 94% people had positive family history, 61% of people had positive physiological factors and 100% people were above 30 yrs age group along with positive diet factor.

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