Original Article

Socio-Clinical Profile of Type 2 Diabetes Mellitus in Less than 50 Years of Age Patients

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ABSTRACT:
Background: The international diabetes federation (IDF) estimates the global prevalence of type 2 DM as 6. 6% (285 million cases) in 2010 and expects to reach to 7. 8% (438 million cases) by 2030. Diabetes is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action or both. Prevention, timely diagnosis and treatment are important. **Materials and Methods:** It is an observational study conducted in the department of medicine S. S. M. C and associated S. G. M. Hospital Rewa from March 2015- August 2016. **Observations**: Out of 187 patients studied 100 (53. 47%) were males and 87 (46. 53%) were females. The prevalence of type- 2 diabetes mellitus was more in urban 108 (57. 75%) than in rural areas 79 (42. 25%). Out of 187 diabetes patients 33 (17. 64%) patients were illiterate and 154 (82.36%) patients were literate. The most common symptom among diabetic cases was polydypsia/ polyuria (42. 78%) whereas the least common was dysuria (4.2%). 112 (59. 89%) Cases out of 187 diabetic cases were addicted to tobacco. 70 (37.43%) cases out of 187 diabetic cases were addicted to alcohol. **Conclusion:** The prevalence of T2DM was more in males than in females. In present study prevalence of T2DM in age group of 14-50 years in Rewa is 3. 46%. T2DM is more prevalent among 30- 50 years age group. The prevalence of T2DM is more in urban than in rural areas. The prevalence of diabetes is more in illiterate population. Most common symptom among diabetic cases was polydipsia and polyuria whereas the least common was dysuria. Prevalence of diabetes was more in tobacco and alcohol addicts than in non addicts.
Key words: Diabetes mellitus, polydipsia, polyuria, dysuria.

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INTRODUCTION
Type 2 Diabetes mellitus is one of the most common chronic metabolic disorders characterized by hyperglycemia. It occur due to defects in insulin secretion, insulin action or both and accounts for at least 90% of all cases of diabetes.[1] It is highly prevalent in elderly and associated with various co morbidities, such as obesity, hypertension, hyperlipidemia, and cardiovascular disease, which ultimately lead to a condition called 'Metabolic Syndrome'.[2] Diabetes mellitus is multifactorial disease. Main risk factors include modifiable variables like body mass index (BMI), physical inactivity, diet, infections and non modifiable variables like age, family history of Diabetes Mellitus.[3]
India currently leads the world with the largest number of diabetic subjects earning dubious distinction of being termed "Diabetes capital of the world". The earliest national study reported an overall prevalence of3% in urban areas and 1.3% in rural areas. (ICMR 1972- 1975).[4]

From region wise population based studies,[5] in the last two decades there has been marked increase in the prevalence of diabetes among both urban as well as rural Indians, with southern India showing the sharpest rise.

MATERIALS AND METHODS:
It is an observational study conducted in the department of medicine S. S. M. C and associated S. G. M. Hospital Rewa from March 2015- August 2016. Subjects included all the patients attending MOPD with sign and symptoms of diabetes mellitus.

Inclusion Criteria:
Patients less than 50 years age from those attending MOPD and patients admitted with sign and symptoms of DM in the medicine ward of S. G. M. H Rewa.
Patients who gave written consent for the study.

Exclusion criteria:
Patients more than 50 years of age and patients less than 14 years of age.

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Patients having type I DM and   Patients those who have not given consent

OBSERVATIONS:

Out of 187 patients studied 100 (53. 47%) were males and 87 (46. 53%) were females. This suggests that prevalence of diabetes was more in males.

TABLE 1
DISTRIBUTION OF CASES ACCORDING TO SEX

S. NO.	SEX	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	MALES	100	53. 47
2.	FEMALES	87	46. 53
	TOTAL	187	100.0

The prevalence of type- 2 diabetes mellitus was more in urban 108 (57. 75%) than in rural areas 79 (42. 25%).

TABLE 2
DISTRIBUTION OF CASES ACCORDING TO HABITAT

S. NO.	HABITAT	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	URBAN	108	57. 75
2.	RURAL	79	42. 25
	TOTAL	187	100.0

Out of 187 diabetes patients 33 (17. 64%) patients were illiterate and 154 (82.36%) patients were literate, out of which 60 (32. 08%) were educated up to primary school, 28 (14. 97%) up to secondary school, 64 (34. 22%) were graduate and 2 (1. 06%) post graduates.

TABLE 3
DISTRIBUTION OF CASES ACCORDING TO EDUCATIONAL STATUS

S. NO.	EDUCATIONAL STATUS	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	ILLITERATE	33	17. 64
2.	LITERATE	154	82. 36
a)	Primary school	60	32. 08
b)	Secondary school	28	14. 97
c)	Graduate	64	34. 22
d)	Post graduate	02	1.06
	TOTAL	187	100. 0

The most common symptom among diabetic cases was polydypsia/ polyuria (42. 78%) whereas the least common was dysuria (4.2%).

TABLE 4
DISTRIBUTION OF CASES ACCORDING TO PRESENTING SYMPTOMS

S. NO.	PRESENTING SYMPTOMS	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	POLUDYPSIA/ POLYURIA	80	42. 78
2.	LOSS OF APPETITE	32	17. 11
3.	WEAKNESS	15	8. 0
4.	TINGLING NUMBNESS	32	17. 11
5.	WEIGHT LOSS	20	10. 69
6.	DYSURIA	08	4.2
	TOTAL	187	100. 0

112 (59. 89%) Cases out of 187 diabetic cases were addicted to tobacco.

TABLE 5
DISTRIBUTION OF CASES ACCORDING TO ADDICTION OF TOBACCO

S. NO.	ADDICTION OF TOBACCO	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	ADDICTED	112	59. 89
2.	NON ADDICTED	75	40. 11
	TOTAL	187	100.0

70 (37.43%) cases out of 187 diabetic cases were addicted to alcohol.

TABLE 6
DISTRIBUTION OF CASES ACCORDING TO ADDICTION OF ALCOHOL

S. NO.	ADDICTION OF ALCOHOL	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	ADDICTED	70	37. 43
2.	NON ADDICTED	117	62. 57
	TOTAL	187	100.0

29 (15. 5%) Cases out of 187 diabetics were addicted to both alcohol and tobacco.

TABLE 7
DISTRIBUTION OF CASES ACCORDING TO ADDICTION OF TOBACCO AND ALCOHOL

S. NO.	ADDICTION OF TOBACCO AND ALCOHOL	TYPE 2 DIABETES MELLITUS	
		NO.	%
1.	ADDICTED TO BOTH	29	15. 50
2.	NON ADDICTED TO BOTH	158	84. 50
	TOTAL	187	100.0

DISCUSSION:

In present study out of 187 diagnosed diabetic cases 100 (53. 47%) were males and 87 (46. 53%) were females. This suggests that prevalence of diabetes was more in males than in females, studies carries by Patel et al[6] reported that prevalence of DM was 62% in males and 38% in females and that of Thakkar et al[7] reported prevalence of DM was 58% in males and 42% in females. All these studies show more prevalence if DM among males than in females similar to that of our study.

In present study of the 187 diagnosed diabetic cases 108 (57. 75%) cases belong to urban area and 79 (42. 25%) cases belonged to rural area. This shows that prevalence of diabetes was more in urban than in rural area. These findings are comparable with Ramchandran et al[8] who reported that age standardized prevalence of diabetes and impaired glucose tolerance (IGT) in urban India in 200 was 12. 1% and 14.0 % respectively. Again Ramchandran et al[9] reported prevalence of 18.6 % in urban and 9.2% in rural population.

In present study out of 187 diabetes patients 33 (17.64%) were illiterate and 154 (82.36%) patients were literate, out of which 60 (32.08%) were educated upto primary school, 28 (14.97%)upto secondary school, 64(34.22%) were graduates and 2(1.06%) post graduates. Comparable to our study, Valdes et al[10] , Maty et al[11] found that low education is significant predictor of type 2 DM.

In our study 112 (59.89%) cases out of 187 diabetic cases were addicted to tobacco. This suggested the prevalence of diabetes was more in tobacco addicts than non addicts.

In our study 70 (37.43%) cases out of 187 diabetic cases were addicted to alcohol and 29 (15.50%) were addicted to both tobacco and alcohol. These finding comparable to studies done by Patja et al[12], Willi et al[13] stating that tobacco and smoking are independent and modifiable risk factors for diabetes. Passive smoking is associated with an increased risk of diabetes Hayashino et al.[14]

CONCLUSION:

The present study was conducted over a period of 17 months and following conclusions were drawn:

- The prevalence of T2DM was more in males than in females.
- In present study prevalence of T2DM in age group of 14- 50 years in Rewa is 3. 46%. T2DM is more prevalent among 30- 50 years age group.
- The prevalence of T2DM is more in urban than in rural areas.
- The prevalence of diabetes is more in illiterate population.
- Most common symptom among diabetic cases was polydipsia and polyuria whereas the least common was dysuria.
- Prevalence of diabetes was more in tobacco and alcohol addicts than in non addicts.

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