ORIGINAL ARTICLE

The Risk of Type 2 Diabetes among Smokers

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ABSTRACT

Aim: To determine the risk of type 2 diabetes among smokers
Methods: This was three months cross-sectional study conducted from July 2019 to September 2019 at tertiary care and a private hospital to on the patients had age ≥12 year, either gender and history of smoking. The subjects were recruited by non probability convenient sample technique. The detailed history, physical examination and required laboratory tests were done. The data was collected on prorforma. Among known diabetic patients itemized history was taken in regards to age at which smoking initiates, prescriptions utilized and if the illness was controlled. The available data was analyzed in SPSS.
Results: During a quarter of a year study period absolute fifty patients had history of smoking were recruited and studied had mean age±SD identified as 52.72±6.93 (yrs) with male gender predominance. Regarding residence the rural and urban population was identified as 30(60%) and 20(40%), hyperlipidemia 32(64%), duration of smoking (yrs) as <1 (16%), 1-3 (30%), 3-5 (34%) and (20%), the number of cigarettes smoked per day as <20 (42%) and (58%), the co-morbids as COPD / asthma 20(40%), hypertension 25(50%), obesity 22(44%) and osteoporosis 16(32%) and diabetes mellitus as 34(68%) respectively.
Conclusion: The smoking is the risk factor for type 2 diabetes mellitus saw in the two sexual orientations. The length of smoking and number of cigarettes smoked each day are straightforwardly relative to acquire type 2 diabetes mellitus in our population.
Keywords: Type 2 Diabetes Mellitus and Smoking

INTRODUCTION

Diabetes mellitus is a condition described by ongoing hyperglycemia because of relative insulin lack, deficiency or both and is a significant medical issue and is arising as a emerging problem[1]. Hazard for the type 2 DM incorporate family background of diabetes, weight, age >35 years, race/nationality, recently recognized IFG or IGT, history of GDM or conveyance of infant more than 9 lbs, hypertension, hyperlipidemia and polycystic ovary syndrome[2-4]. As of late cigarette smoking has been archived as an alarming for type diabetes mellitus[5]. Cigarette smoking is the biggest preventable danger factor for dreariness and mortality and is a significant addiction practice in Pakistan.[6] Smoking in Pakistan is more than cancer and heart disease and remains the most preventable cause of premature deaths worldwide. Smokers likewise have more noteworthy grimness than nonsmokers.[7] Current smokers have more intense and constant sickness just as more limited movement days, more restricted days, and more school and work non-attendance than previous smokers or the individuals who won't ever smoke[8,9]. Smoking is a cause of diseases like COPD, lung malignancy, CHD, stroke, intrauterine growth restriction, spontaneous abortions. Large numbers of the harmful wellbeing impacts of dynamic smoking have now been related with uninvolved smoking[10].

The few researches have raised the likelihood that cigarette smoking expands the risk of type 2 diabetes mellitus[11,12]. Thus the present study was planned to conduct at tertiary care and a private hospital on the individuals who have history of smoking. By this means the patients can be properly rationalized and timely screening of high risk individuals can reduce the disease burden and mortality.

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PATIENTS AND METHODS

This was three months cross-sectional study conducted from July 2019 to September 2019 at tertiary care and a private hospital to on the patients had age ≥12 year, either gender and history of smoking while the exclusion criteria of the study were patients of type 1 DM, patients suffering from diseases leading to secondary diabetes mellitus as chronic pancreatitis, pancreatic neoplasia, cystic fibrosis, hemochromatosis, acromegaly, Cushing' syndrome, pheochromocytoma, hyperthyroidism and cirrhosis, patients taking diabetogenic drugs like nicotinic acid, glucocorticoids, thyroid hormones, beta-blockers, phenytoin and thiazide diuretics, pregnant and lactating ladies and the patients with gestational diabetes mellitus. The subjects were recruited by non probability convenient sample technique. The detailed history, physical examination and required laboratory tests were done. The data was collected on prorforma which included questions about smoking and diabetes mellitus. Among known diabetic patients itemized history was taken in regards to age at which smoking initiates, prescriptions utilized and if the illness was controlled. The available data was analyzed in SPSS 21 version. The frequencies, percentages & mean±SD was analyzed for the study variables.

RESULTS

During a quarter of a year study period absolute fifty patients had history of smoking were recruited and studied had mean age±SD identified as 52.72±6.93 (yrs) with male gender predominance. The clinical profile of populace is presented in Table I.

Table 1: The clinical profile of study population (n=50)

Parameter	Frequency	%age
Age (yrs)		
35-39	04	8.0
40-49	11	22
50-59	14	28
60-69	15	30
70+	06	12
Gender		
Female	14	28
Male	36	72
Residence		
Rural	30	60
Urban	20	40
Hyperlipidemia		
Yes	32	64
No	18	36
Duration of smoking (yrs)		
<1	08	16
1-3	15	30
3-5	17	34
>5	10	20
Number of cigarettes smoked per day		
<20	21	42
>20	29	58
Co-morbids		
COPD / asthma	20	40
Hypertension	25	50
Obesity	22	44
Osteoporosis	16	32
Diabetes mellitus		
Yes	34	68
No	16	32

DISCUSSION

A few examinations have been done to discover relationship of smoking in the etiology of type 2 diabetes mellitus[13,14] A former study showed impaired fasting glucose and hypertension at entry in smokers and acquired diabetes mellitus during follow-up visits. In the wake of adapting to different covariates including age, weight list, alcohol, actual work, parental history of diabetes and the degree of fasting plasma glucose, hyperlipidemia and hematocrit, the overall danger of type 2 diabetes mellitus among smokers contrasted and nonsmokers was around 1.47[15]**.**

Another research showed smokers at first liberated from diabetes mellitus and the parameters about cigarette smoking and other risk was accumulated at benchmark. During follow up visit new instances of type 2 diabetes mellitus were recognized. The smokers had a portion subordinate expanded danger of acquiring type 2 diabetes mellitus contrasted and non smokers. After multivariate change for BMI, active work and other factors, the general risk were 1.8 for current smokers of >twenty cigarettes per day and 1.6 for current smokers of <twenty cigarettes per day and for previous smokers[16].

Former study showed smokers free of diabetes and has been diagnosed as diabetes mellitus on follow up visits while the current smokers had an expanded risk of diabetes and a huge portion reaction pattern for higher risk among smokers was noticed. The general risk of type 2 diabetes mellitus adapted to weight and other factors was 1.42 among smokers who smoked at least 25 cigarettes each day contrasted and nonsmokers.[17]

CONCLUSION

The smoking is the risk factor for type 2 diabetes mellitus saw in the two sexual orientations. The length of smoking and number of cigarettes smoked each day are straightforwardly relative to acquire type 2 diabetes mellitus in our population.

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