

Original Research Article

Prevalence of Erectile Dysfunction among Type 2 Diabetic Males at Government General Hospital, Nizamabad

Thirupathirao Jalagam¹, Syam Sundar Junapudi^{2*}

¹Associate Professor, Department of General Medicine, Government Medical College, Nizamabad, India

²Associate Professor, Department of Community Medicine, Government Medical College, Suryapet, Telangana, India

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Abstract

Background: Erectile dysfunction (ED), also known as impotence, is a type of sexual dysfunction characterized by the inability to develop or maintain an erection of the penis during sexual activity. In diabetic men, erectile dysfunction usually occurs as a result of micro-vascular changes, neuropathy and endothelial dysfunction, which are causes of many other complications of diabetes. ED is common in men who have diabetes, especially those with type 2 diabetes. In diabetic men, erectile dysfunction usually occurs as a result of micro-vascular changes, neuropathy and endothelial dysfunction, which are causes of many other complications of diabetes. ED is an undiagnosed and underreported problem. It can stem from damage to nerves and blood vessels caused by poor long-term blood sugar control. Erectile dysfunction can also be linked to other conditions common in men with diabetes, such as high blood pressure and heart disease. Erectile dysfunction might occur earlier in men with diabetes than in men without the disease. **Material and Methods:** -This study was hospital based cross sectional study conducted on type 2 diabetes male patients attending outpatient department of general medicine, at government general hospital, Nizamabad. After institutional ethical committee approval and informed consent of study subjects, a convenient sample of 100 was taken from age group 25 to 75 years from April 2017 to April 2018. **Results:** In the present study 24% of patients have Normal erectile function, 76% patients have erectile dysfunction, in that 40% have mild erectile dysfunction, 24% have moderate ED, 12% have severe ED. In this study ED was more common in the age group of 50-59 (24%) and 40-49 (21%). In this study as the duration of diabetes is increases severity of ED increases. In the present study 45% with hypertension have ED and 31% Normotensive have ED. In this study as the duration of diabetes is increases severity of ED increases. Mild, moderate, severe ED was seen with history of diabetes above 10 years. ED was less common with history of below one year diabetes history. **Conclusion:** In the present study 24% of patients have Normal erectile function, 76% patients have erectile dysfunction, in that 40% have mild erectile dysfunction, 24% have moderate ED, and 12% have severe ED. Erectile dysfunction was more common in the age group of 50-59 (24%) and 40-49 (21%). In the present study 45% with hypertension have ED and 31% Normotensive have ED. In this study as the duration of diabetes is increases severity of ED increases. Mild, moderate, severe ED was seen with history of diabetes above 10 years. ED was less common with history of below one year diabetes history.

Keywords: Erectile dysfunction, type 2 Diabetes, Males, IIEF-5 Questionnaire.

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Introduction

Erectile dysfunction (ED), also known as impotence, is a type of sexual dysfunction characterized by the inability to develop or maintain an erection of the penis during sexual activity. Erectile Dysfunction (ED) is a common condition which is seen among men with diabetes. ED is a consistent inability of the male in achieving or sustaining an erection of sufficient rigidity, for permitting a satisfactory sexual intercourse. In diabetic men, erectile dysfunction usually occurs as a result of micro-vascular changes, neuropathy and endothelial dysfunction, which are causes of many other complications of diabetes. ED is common in men who have diabetes, especially those with type 2 diabetes. In diabetic men, erectile dysfunction usually occurs as a result of micro-vascular changes, neuropathy and endothelial dysfunction, which are causes of many other complications of diabetes. ED is an undiagnosed and under-reported problem. It can stem from damage to nerves and blood vessels caused by poor long-term blood sugar control. Erectile

dysfunction can also be linked to other conditions common in men with diabetes, such as high blood pressure and heart disease. Erectile dysfunction might occur earlier in men with diabetes than in men without the disease. Difficulty maintaining an erection might even precede the diabetes diagnosis. While the incidence of sexual problems increases with age (particularly in men but also in women), this is driven primarily by comorbid conditions associated with aging. Examples include smoking, heart disease, high blood pressure, high cholesterol, and diabetes[1]. The incidence of ED in men with diabetes is approximately three-fold higher than in the general population[2]. ED may also be the presenting symptom for DM and may predict later neurologic sequelae[3]. The main aim of this study was to study the prevalence of erectile dysfunction among type 2 diabetic men who attending outpatient department of general medicine, Government general hospital, Nizamabad. In regular outpatient department we are seeing more ED patients. Nizamabad is the one of city having more diabetic population in Telangana.

Material and Methods

This study was hospital based cross sectional study conducted on type 2 diabetes male patients attending outpatient department of general medicine, at government general hospital, Nizamabad. After institutional ethical committee approval (ECR/951/Inst/TG/2017)

*Correspondence

Dr. Syam Sundar Junapudi

Associate Professor, Department of Community Medicine,
Government Medical College, Suryapet, Telangana, India.

E-Mail: doctorshyamj@gmail.com

and informed consent of study subjects, a convenient sample of 100 was taken from age group 25 to 75 years from April 2017 to April 2018. International Index of Erectile Function 5 (IIEF-5) questionnaire[4] was used for data collection. After informed consent data was collected and analyzed with MS Office 2016 was used. International Index of Erectile Function 5 (IIEF-5) questionnaire have two categories one is Normal erectile function another is Erectile dysfunction, further it is divided to mild, moderate and severe. All patients underwent routine clinical examinations which include recording of duration of diabetes, type of diabetes, Body Mass Index, fasting blood sugar, HbA1c, Lipid Profile, blood pressure was recorded.

Study design: Hospital Based Cross-Sectional Study. Study Setting: Government General hospital, Nizamabad.

Study Population: Type 2 diabetic males 25 to 75 year's age group are involved in this study type 1 diabetic patients are excluded.

Results

Table 1: Prevalence of erectile dysfunction in the study population

Condition of erectile function (IIEF-5)	Study Population (n=100)
Normal erectile function	24 %
Erectile dysfunction	76 %
Mild	40 %
Moderate	24 %
Severe	12 %

In the present study 24% of patients have Normal erectile function, 76% patients have erectile dysfunction, in that 40% have mild erectile dysfunction, 24% have moderate ED, and 12% have severe ED.

Table 2: Prevalence of erectile dysfunction (ED), in the different age groups

Condition of erectile function (IIEF-5)	20-29	30-39	40-49	50-59	60-69	70-79	Total
Normal erectile function	4 %	7 %	5 %	5%	3%	0%	24%
Erectile dysfunction	2 %	6 %	21 %	24%	15%	8%	76%
Mild	2 %	3 %	14 %	14 %	6%	1 %	40 %
Moderate	0 %	2 %	4 %	6 %	7%	5 %	24 %
Severe	0 %	1 %	3 %	4 %	2%	2 %	12 %

In this study ED was more common in the age group of 50-59 (24%) and 40-49 (21%), less common in 20-29 age groups. Severe ED was seen in the age group of 50-59 (4%).

Table 3: Duration of diabetes in years and severity of Erectile Dysfunction among ED Patients

Condition of erectile function (IIEF-5)	Below 1 year	1-5 years	5-10 years	Above 10 years	Total
Mild Erectile dysfunction	1 %	8 %	13 %	18 %	40 %
Moderate Erectile dysfunction	2 %	3 %	7 %	12 %	24 %
Severe Erectile dysfunction	0 %	2 %	4 %	6 %	12 %
Total	3 %	13 %	24 %	36 %	76 %

In this study as the duration of diabetes increases severity of ED increases. Mild, moderate, severe ED was seen with history of diabetes above 10 years. ED was less common with history of below one year diabetes history.

Table 4: severity of ED associated with hypertension

Erectile function	Hypertension present	Hypertension absent	Total (n=100)
Normal erectile function	4 %	20 %	24 %
Erectile dysfunction	45 %	31 %	76 %

$\chi^2 = 11.56$, CI= 95% , P= 0.0007 statistically significant

In the present study 45% with hypertension have ED and 31% Normotensive have ED

Discussion

In the present study 24% of patients have Normal erectile function, 76% patients have erectile dysfunction, in that 40% have mild erectile dysfunction, 24% have moderate ED, and 12% have severe ED. A study done by Kumar R, Malik D, Nehra DK, Soni AK et al [5] prevalence of ED was 58%. which was very less when compared with present study. Another study conducted by Vijay Viswanathan, Sarveswar Aggarwal, Satyavani Kumpatla et al [6] prevalence of ED was 44.4% which was less when compared to present study. In this study ED was more common in the age group of 50-59 (24%) and 40-49(21%). According to Ponholzer A, Temml C, Mock K, Marszalek M et al [7]. that age was an important risk factor for ED. Severe ED

increases from 0.4 % (20-30 years) to 0.5% (41-50 years), 1.3% (51-60 years) and to 9.6% in those who were aged 71-80 years. This results vary from present study in this study ED was more prevalent in 50-59 age group. Miyata Y, Shindo K, Matsuya F, Noguchi M et al [8] also identified that ageing as an independent factor for both ED and severe ED. In this study as the duration of diabetes increases severity of ED increases, according to Vijay Viswanathan, Sarveswar Aggarwal, Satyavani Kumpatla et al [6] severe ED was associated with duration of diabetes. In the present study 45% with hypertension have ED and 31% Normotensive have ED, according to Al-Hunayan A, Al-Mutar M, Kehinde EO, Thalib L et al [9] and Giuliano FA, Leriche A, Jaudinot EO, de Gendre AS et al [10] have

reported that hypertension had a high prevalence of bothersome, untreated ED. A study by Giuliano FA, Leriche A, Jaudinot EO, de Gendre AS et al [11] found a significant association with hypertension.

Conclusion

In the present study 24% of patients have Normal erectile function, 76% patients have erectile dysfunction, in that 40% have mild erectile dysfunction, 24% have moderate ED, and 12% have severe ED. Erectile dysfunction was more common in the age group of 50-59 (24%) and 40-49 (21%). As duration of diabetes increases severity of ED increases. 45% with hypertension have ED and 31% Normotensive have ED

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