

Frequency of Sexual Dysfunctions in Type 2 Diabetic Males

Imran Ali Shaikh, Santosh Kumar, Ikram din Ujjan, Samiullah Shaikh

ABSTRACT

OBJECTIVE: To determine the frequency of different sexual dysfunctions in type 2 diabetic males attending Diabetic OPD of Isra University Hospital and in private setup at Hyderabad.

DESIGN: Observational study.

DURATION OF STUDY: March 2008 to August 2008.

METHODS: One-hundred type 2 diabetic males were enrolled by purposive sampling technique after obtaining a well informed consent. The different sexual dysfunctions were explained in the language best understood by the subject. Inclusion criteria was type 2 diabetic males of 35-65 years in age taking oral hypoglycemic agents for at least 5-years with HbA1c <9%. Patients with hypertension, and any other endocrine disease like hypogonadism, thyroid and marked renal or hepatic insufficiency were excluded from the study. Frequencies, proportions and means with standard deviations are calculated for respective types of data.

RESULTS: Erectile dysfunction was most frequent, which was present in 55 patients, premature ejaculation in 20, hypoactive sexual desire disorder in 15 and retrograde ejaculation in 10 patients.

CONCLUSION: Diabetes is associated with different sexual dysfunctions and most common is erectile dysfunction.

KEY WORDS: Sexual dysfunctions, Type-2 Diabetes, Males, Erectile Dysfunction, Premature Ejaculation.

INTRODUCTION

Male sexual dysfunctions include male orgasmic disorder, premature ejaculation, erectile dysfunction, hypoactive sexual desire disorder and retrograde ejaculation. The male orgasmic disorder is characterized by persistent difficulty in attaining orgasm with reported prevalence of up to 8%.¹

The premature ejaculation is an ejaculation with minimal stimulation before person wishes it. Its one-year prevalence is reported 14-29%.^{2,3}

The erectile dysfunction is an inadequate erection for sexual activity with prevalence of one year in general population up to 10%.⁴ The prevalence of erectile dysfunction in diabetes is doubled.⁵

Hypoactive sexual desire dysfunction is characterized by deficient sexual fantasies desire for sexual activity. A study was conducted on type 1 diabetic males and females, shown sexual dysfunction in diabetic women 27% and men 22%.⁶ Another study showed that 27.5% women and 44% men are suffering from sexual dysfunction.⁷

Retrograde ejaculation defined as substantial propulsion of semen from posterior urethra, which may be complete or partial.

The debate of etiology of sexual dysfunctions in diabetes is still ongoing. It includes vascular, autonomic neuropathy, associated renal and cardiac diseases contribute the problem. At other end the psychological factors are also important such as anxiety and depres-

sion, so diabetic patients are at risk of both organogenic and psychological dysfunctions.⁸

The sexual dysfunction is hidden era of patient's history and many patients are not able to discuss freely with their doctor.

The rationale to conduct this study was to determine the frequency of different sexual dysfunctions in diabetic males. There is enormous material available on erectile dysfunction in diabetes but very few studies have been done on different aspects of sexual dysfunctions in diabetic males internationally and still no study has been conducted in Pakistan.

This study has conducted on various aspects of sexual dysfunction in diabetic males and rectify the concept of doctors and common man that erectile dysfunction is only sexual problem in diabetic males. The given scales help the doctors for assessment of sexual dysfunction.

MATERIALS AND METHODS

This observational study was conducted at Diabetic OPDs at Isra University Hospital and Private setup at Hyderabad, Sindh-Pakistan. Type-2 diabetic males complaining any type of sexual dysfunction were included in the study after obtaining a well informed consent. A predesigned proforma was used to record information about patient age, address, educational and socio-economical status, smoking, height, weight, past history, personal history, medical history includ-

ing drug intake, duration and control of diabetes. The inclusion criteria were males 35-65 years of age with type-2 diabetes for at least 5 years duration, HbA1c <9% (for control of diabetes), and taking oral hypoglycemic agents (Glibinclamide and/or metformin). Patients who were taking any other hypoglycemic drug, alcoholic, taking antihypertensive, anticholesterol, suffering from any other endocrinological disorder (e.g. Thyroid dysfunction, hypogonadism), with advanced hepatic and renal insufficiency were not included in the study. Routine laboratory investigations were carried out, including urea, creatinine, LFTs, to exclude marked renal or hepatic dysfunction. Hypogonadism was excluded by genital examination. Subjects were interviewed by the researchers as majority of the population presented at tertiary care facility is not literate enough to fill the proforma for itself. Sexual dysfunctions were explained in details using simple words in language best understood by the patient (English, Urdu, Sindhi). Complete sexual history, including frequency of coitus before and after diabetes, duration of ejaculation, and night tumescence, were recorded with assurance that the information will be kept classified and only used for research. Basic laboratory investigations including urea and creatinine out in all were done by using automatic Hitachi analyzer 920.

Arizona Sexual Experience Scale (ASEX)⁹ and the Diagnostic and Statistical Manual of Mental Disorder for sexual dysfunction (DSM-IV-TR)¹⁰ were used for quantification of sexual dysfunction. ASEX was used to quantify the sex drive, penile erection, ability to reach orgasm, and satisfaction from orgasm. The scoring of scale was 1-6, i.e. from extremely strong (1) to absent/never (6), with possible score between 5 and 30.

DSM-IV-TR described the definition of sexual dysfunction as mild to severe with codes starting from 302.2 onwards. It is most commonly used by the physicians world wide. Patients were divided into four categories of sexual dysfunctions - premature ejaculation, hypoactive sexual desire dysfunction, erectile dysfunction, and retrograde ejaculation. Data were tabulated on SPSS version 15 to calculate frequencies, percentages and means.

RESULTS

One-hundred patients were included in the study. Mean±SD age of the subjects was 45±2.5 years, ranging 35-65 years. In age, 20 patients were of 35-45 years, 15 patients were of 46-55 years, and 65 patients of 56-65 years. Only 2 patients had BMI>25. Majority (80%) of the patients was non-smoker. Rest of 20% patients smoked 1—20 cigarettes/day for 1-2 years. Routine laboratory investigations were carried

out, including urea, creatinine, LFTs, to exclude marked renal or hepatic dysfunctions; these were found to be within normal ranges. Mean level of urea was 27.5 mg/dl, creatinine was 0.9 mg/dl, serum bilirubin 0/8%, SGPT 45-iu/l, alkaline phosphatase 153-iu/l, and GGT 22-iu/l.

Erectile dysfunction was found to be the most common that was reported by 55% patients, followed by premature ejaculation in 20%, HSDD in 15% and the least common sexual dysfunction reported was retrograde ejaculation by 10% patients.

DISCUSSION

The prevalence of the diabetes for all age groups world wide estimated to 2.8% in 2000 and 4.4% in 2030¹⁰. The total number of people with diabetes projected to rise from 171 millions in 2000 to 366 millions in 2030.¹¹

The genitourinary problems include sexual and bladder dysfunctions. The prevalence of erectile dysfunction is 36% in men with diabetes which is three times more than in general population¹². In our study it was higher because of the small size of sample. One study is known as MMAS (Massachusetts male aging study) showed 52% of males affected by some degree of erectile dysfunction¹³.

The erectile dysfunction showed in older age group in our study which also matched with study conducted in Italy¹⁴ showed erectile dysfunction has increased with increasing age, 2% individuals between ages 18-39 years and 48% above 70 years had erectile dysfunction.

These figures are generally consistent with other studies of erectile dysfunction¹⁵.

An epidemiological survey performed in four countries reported that prevalence of erectile dysfunction to be 34% in Japan, 22% in Malaysia, 17% in Italy and 15% in Brazil¹⁶

The premature ejaculation was second common sexual dysfunction observed in 20% of patients Montons F¹⁷ showed prevalence of premature ejaculation varying from 25% to 60%.

The premature ejaculation is highly prevalent in diabetes up to 30%¹⁸. Hypoactive sexual desire dysfunction (HSDD) among diabetes is not well studied. Community samples indicate current prevalence is 0-3%¹⁹. In this study HSDD was high 15%, could be due to small number of patients. No local data was available to match this study.

The retrograde ejaculation was reported in one third of patient with diabetes²⁰. In our study it was 10% of patients.

The erectile dysfunction is most common among all four types of sexual dysfunction. All types of sexual dysfunction should be categorized on international

standard indices. There is need of larger study in this regard to elaborate this common problem that is not commonly reported in our setup due to socio-cultural environment of our country.

REFERENCES

1. Laumann EO, Rose N, Paik A. Sexual dysfunction in the USA. JAMA 1999; 281:537-44.
2. Caalan J, Klines I, Bond A. The psychological impact of HIV infection in gay men. A controlled investigations and factors associated with psychiatric morbidity. Br J Psychiatry 1992;161:774-8.
3. Read S, King M, Watson J. Sexual dysfunction in primary medical care; prevalence, characteristics and detection by general practitioner. J Public Health Med. 1997;19:387-93.
4. Ernst C, Foldenyi M, Angst J. The Zurich study XXI. Sexual dysfunction and disturbances in young adults. Data of a longitudinal epidemiological study. Eur Arch Psychiatry. Cline. Neuro 1993;243:179-88.
5. Becon CG, Hn FB, Givoannucci E, Glasser DB, Mittlemann MA, Rimm EB. Association of type and duration of diabetes with erectile dysfunction in large cohort of men. Diabetes Care. 2002;25:1458-63.
6. Enzlin P, Mathieu C, Van den Bruel AN, Vander-schueren D. Prevalence and predictor of sexual dysfunction in patients of type-1 diabetes. Diabetes Care 2003;26:409-14.
7. Jensen S. Sexual dysfunction a comparative study of 160 diabetic patients IDDM. Arch Sex Behav; 1981;10:493-504.
8. Thomas A, Lopiccato J. Sexual functioning in persons with diabetes; issues in research, treatment and education. Clin Psy 1994;14:1-86.
9. Mc Gahuey, Galenberg AJ, Moreno FA, Delgado PL, Mc Knight KM, Manber R. Arizona sexual experience scale (ASEX); reliability and validity. J Sex Marital Thera 2000;26:25-40.
10. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders. 4th edition. Washington DC: 2000.
11. Wild S, Roglic G, Green A, Sicree R, King H. Global prevalence of diabetes. Diabetic care 2004;27:512-8.
12. Therapy Insight. Sexual and bladder dysfunctions with diabetes mellitus. Natural Clin Pract Urol 2005;282-92.
13. Feldman HA, Goldstein I, Hazichriston DG, Krane RJ, McKinlay. Impotence and its medical and psychological correlates. Results of Massachusetts male aging study. J Urol 1994;15(1):54-61.
14. Parazzini F, Fabris FM, Bortolotti A, Calabro A, Chatenomi L, Colli E. Frequency and determinants of erectile dysfunction in Italy. Eur J Urol 2000;37:43-9
15. Lyngdorf P, Hemmingsen L. Epidemiology of erectile dysfunction and its risk factors: a practice based study in Denmark. Int J Impot Res 2004;16(2):105-11.
16. Nicolosi A, Moreira ED Jr, Shirai M, Bin Mohd Tambi MI, Glasser DB. Epidemiology of erectile dysfunction in four countries. Urology 2003;61:201-6.
17. Montorsi F. Prevalence of premature ejaculation. J Sex Med 2005; supplement 2:99-102.
18. EL-Sakka AL. Premature ejaculation in non insulin diabetes mellitus patients. Int J Androl 2003;26:329-34.
19. Simins J, Carey MP. Prevalence of sexual dysfunctions: results from a decade research. Arch Sex Behv 2001;30(2):177-219.
20. DunSmulin WB, Holms SA. The etiology and management of erectile, ejaculatory and fertility problems in men with diabetes mellitus. Dabet Med 1996;13:700-8.



AUTHOR AFFILIATION:

Dr. Imran Ali Shaikh (*Corresponding Author*)

Assistant Professor, Department of Medicine
Liaquat University of Medical and Health Sciences
(LUMHS), Jamshoro, Sindh-Pakistan.
Email: imran5nailli@hotmail.com

Dr. Santosh Kumar

Senior Registrar, Department of Medicine
LUMHS, Jamshoro, Sindh-Pakistan

Dr. Ikram din Ujjan

Assistant Professor, Department of Pathology
LUMHS, Jamshoro, Sindh-Pakistan.

Dr. Samiullah Shaikh

Assistant Professor, Department of Medicine
LUMHS, Jamshoro, Sindh-Pakistan.