FREQUENCY OF SELF-REPORTING OF ERECTILE DYSFUNCTION IN DIABETIC PATIENTS. A SINGLE CENTER EXPERIENCE

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ABSTRACT

Objective: To determine the frequency of erectile dysfunction in a referral diabetic clinic and the rate of self-reporting in relation to age and duration of diabetes.

Methods: A group of 258 males were interviewed in the diabetic clinic in the first half of 2001. Mean age (± standard deviation) was 52.3±10.62 (range 35-75 years) with mean duration of diabetes of 9.8±6.8 years. About 6% of the sample had type 1 diabetes and 94% had type 2 diabetes.

Results: The duration of erectile dysfunction was 33.8±27.6 months (1.5-120 months). Erectile dysfunction was found in 67.4 % (n=174) of the interviewed patients. Only 40.2% (n= 70) of patients reported erectile dysfunction, which was directly proportionate to age. Higher frequency of erectile dysfunction was found in patients with duration of >10 years but with a lower self-report rate.

Conclusion: The frequency of self-reporting is, however, low. Erectile dysfunction should be looked for routinely as part of the follow-up in the diabetic clinic and treated accordingly.

Key words: Erectile dysfunction, Self-report, Diabetes mellitus

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Introduction

Erectile dysfunction (ED); the inability to attain and maintain a penile erection sufficient to permit satisfactory sexual intercourse [(1)], has a general frequency of 5.2% in the outpatient clinics [(2)], and reaches almost 60% in diabetics [(3)].

Aging, hypertension, diabetes mellitus (DM) and ischemic heart disease are among several other variables implicated in the etiology of ED [(2)]. Moreover; vasculopathy [(4,5)] and neuropathy [(6,7)], are additional etiologies implicated in diabetic patients.

Commonly, ED in DM develops insidiously over a period of months to years [(8)]. ED, however, is not a late complication of the disease but can occur early in the natural history of the disease or as a first presentation [(9)].

Pertulla [(10)] found that physicians initiate discussion about ED in 17% of patients with hypertension, 18% of those with diabetes and in 30% of patients aged 65 years and above.

Erectile dysfunction is an overlooked diagnosis in diabetic patients in our part of the world, for it is considered a taboo to be discussed due to its relation with male dominance and self esteem. In addition, to the patient's embarrassment is the lack of the physicians' time to discuss these issues.

So this study was conducted to determine the frequency of ED in a referral diabetic clinic and to find the rate of self-reporting in this group in relation to age and duration of diabetes.

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Methods

Two hundred and fifty eight diabetic males aged between 35-75 years were seen in the diabetic clinic at King Hussein Medical Center in Amman-Jordan between January and June 2001. Ninety four percent of the cohort had type 2 diabetes.

All patients were married and 99% had one or more children.

The visit consisted of complete physical examination, assessing the diabetic control and asking patients about any problems they encountered.

If not self-reporting any ED, then patients were asked specifically about it and the patterns and duration of ED.

All associated conditions, possible risk factors, smoking, alcohol habits and drug history were also reported.

Patients were divided into four groups according to their age: Group 1 (35-44 years) 70 patients (27%); group 2 (45-54 years) 76 patients (29.4%); group 3 (55-64 years) 82 patients (32%) and group 4 (65-75 years) 30 patients (11.6%). According to the duration of diabetes patients were divided into five groups: Group 1 with a duration of DM ≤ 5 years 90 patients (34.9%), group 2 with a duration of DM (6-10 years) 62 patients (24%), group 3 with a duration of DM (11-14 years) 46 patients (17.8%), group 4 with a duration of DM (15-20 years) 40 patients (15.5%), and group 5 with a duration of DM of > 20 years 20 patients (7.8%). The frequency of ED and the rate of self-report were recorded in each group.

Statistical methods used included percentages, mean, standard deviation and ranges.

Results

Mean age of the patients (± standard deviation) was 52.3± 10.62 range (35-75) years. The mean duration of DM was 9.8±6.8 years. (range 0.4-30). About 6.1% of the sample had type 1 diabetes. Mean HbA1c was 7.98±2.3%. Eighty-one patients (31.4%) had good glycemic control (HbA1c≤7%) and 177 patients (68.6%) had poor glycemic control (HbA1c>7%). Of those with a good glycemic control 41 patients (50.6%) had ED, while of those with a poor glycemic control 133 patients (75.1%) had ED. The mean duration of ED was 33.8 ± 27.6 months (1.5-120).

Erectile dysfunction was found in 67.4% (n= 174) of patients. The frequency of self-report of ED was 40.2% (n= 70). The onset of ED was sudden in 33% and gradual in 67%.

Smoking was found in 92 patients (35.7%). ED was found in 79.4% of the smokers and in 54.6% of the non-smokers. Moderate alcohol consumption (<21 units /week) was present in 3 patients (1.2%) and all of them had ED.

The current medications for diabetes are shown in Table I. The majority was receiving oral hypoglycemic agents (58.9%) followed by insulin in one third of patients. The frequency of ED and rate of self-report of ED according to each age group and duration of diabetes are shown in Figures 1 and 2.

Table I. The current medical therapy for diabetes

Drugs	**No.**	**%**
Diet	4	1.6
Sulphonylurea ± Metformin	152	58.9
Repaglinide	4	1.6
Insulin+Metformin	12	4.6
Insulin	86	33.3

Discussion

This study has tackled an important aspect of sexual activity of patients with diabetes that has an impact on their well-being. While ED is generally acknowledged as an important health problem, there are still some common misperceptions regarding this issue. Many older patients assume that ED is normal for their age. Others still believe that there is no cure for their ED [10]. Because of the very personal and private nature of the subject, many patients are reluctant to initiate discussions on ED with their private physicians. In one study [11] , 23% of physicians had inquired about ED among their patients. In this study 85% patients believed that sexual dysfunction was a subject that physicians should inquire about.

There was no formal questionnaire to report ED in this study, instead we used a direct questioning for patients who did not self-report ED. This gave a sense of relief and appreciation to patients who felt uncomfortable to discuss this issue.

The prevalence in our cohort is higher than other studies [2,3,5,12-18] most probably due to the long-standing diabetes that is known to be an important risk factor for ED [5,9] along with high rates of smoking and hypertension. The inadequate glycemic control in this cohort may have an impact on the high frequency of ED as previously reported by Romeo *et al* [19].

The prevalence of ED showed directly proportionate increase with aging peaking between 55-65 years as 95% of patients reported ED at this age (Fig. 1). Although the frequency of ED was higher in patients with longer duration of diabetes that peaks at diabetes duration of more than 10 years, nevertheless 50% of patients with duration of less than 5 years reported ED, probably the duration of the disease in this group was underestimated, as the majority of them had type 2 diabetes, a considerable time elapsed between the onset of the disease and time of diagnosis. ED was actually a presenting complaint in some patients who were just discovered to be diabetics.

Self-reporting was found in only 40% of patients with ED, giving an idea about the sensitivity of discussing this issue even with the treating physician due to the social and self-respect implications, along with lack of privacy and lack of time in a busy diabetic clinic.

Self-reporting ED rate was inversely proportionate to age (Fig. 2) as 60% of the younger age group reported ED. This rate however remains below expectations

taking into consideration that this is the peak age of active sexual life. The relation of self-report rate with duration of diabetes was variable, however it was lower in patients with a longer duration of DM probably because of their belief that there is no cure "for this problem" [10].

The longer duration of ED in this cohort is another indicator of the taboo that patients exert on themselves which might add to the morbidity of our patients. A longer duration of ED was also found by Al-Helali *et al* in Saudi Arabia [12]. The mean age of onset in this study is comparable with that of Saudi Arabia and the Minneapolis study [13].

The onset of ED was gradual in 67% in this group, which is comparable with other studies [11,20,21], but less than that reported by Carroll *et al* [22] (80%) because of the higher age group studied in their cohort.

Diabetes per se remains the strongest factor for ED in our group, other associated diseases (neurological and vascular) and smoking could add to the etiology of ED in these patients.

In conclusion, although ED is common in diabetics especially with longer duration of the disease, the rate of self-reporting however, is low. Patients should be encouraged to report such problems to avoid chronic and long term physical and psychological complications.

We recommend optimal diabetic control, more privacy in diabetic clinics and the establishment of a combined diabetic impotence clinic to tackle this important and highly sensitive clinical and social problem.

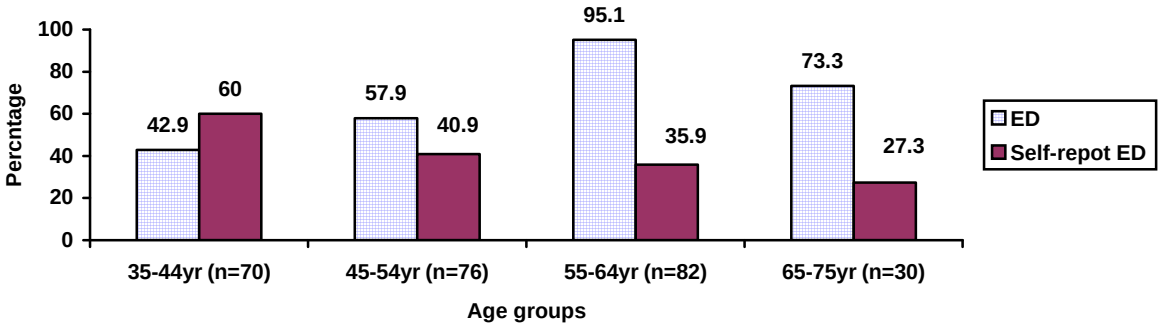

Fig. 1. Frequency of ED and rate of self -report ED in relation to age.
(n=Number of patients in that group)

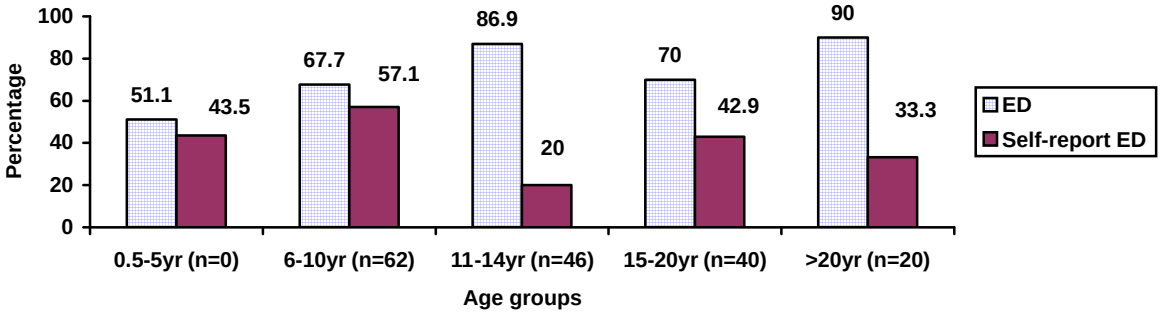

Fig. 2. Frequency of ED and rate of self-report ED in relation to the duration of diabetes.
(n=Number of patients in that group)

References

1. NIH Consensus Development Panel on Impotence. *JAMA* 1993; 270: 83.
2. **Feidman HA, Goldstein I, Hatzichristou D.G. *et al.*** Impotence and its medical and psychosocial correlates: Results of the Massachusetts Male Aging Study (MMAS). *J of Urology* 1994; 15 1:54-61.
3. **McCulloch DK, Campbell IW, Wu FL, *et al.*** The frequency of diabetic impotence. *Diabetologia* 1980; 18:279.
4. **Takanami M, Naguo K, Ishii N, *et al.*** Is diabetic neuropathy responsible for diabetic impotence? *Urol Inter* 1997; 58(3): 181-185.
5. **Sullivan ME, Keoghane SR, Miller MAW.** Vascular risk factors and erectile dysfunction. *BJU Int* 2001; 87: 838-845.
6. **Veves A, Webster L, Chen TF, *et al.*** Aetiopathogenesis and management of impotence in diabetic males: Four years experience from combined clinics. *Diabet Med* 1995; 12(1): 77-82.

7. **Nehra A, Morelont RB.** Neurologic erectile dysfunction. *Urologic Clin N Am* 2001; 28(2): 289-308.
8. **Kolodny R C, Kahn C B, Goldstein A, *et al.*** Sexual dysfunction in diabetic men. *Diabetes* 1989; 23: 306.
9. **Hakim LS, Goldstein I.** Diabetic sexual dysfunction. *Endocrin Metab Cli North Am* 1996; 25(2): 379-400.
10. **Perttula E.** Physician attitudes and behavior regarding erectile dysfunction in at-risk patients from rural community. *Postgrad Med J* 1999; 75:83-85.
11. **Metz ME, Seifert Ml.** Men's expectations of physician in sexual health concerns. *J Sex Marital Ther* 1990; 16: 79-88.
12. **Al-Helali NS, Abolfotouh MA, Ghanem HM.** Pattern of erectile dysfunction in Jeddah city. *SMJ* 2001: 22 (1): 34-38.
13. **Slag MF, Morly JE, Elson MK, *et al.*** Impotence in medical outpatient clinic. *JAMA* 1983; 249(13): 1736-1740.
14. **Spector IP, Carey MP.** Incidence and prevalence of sexual dysfunction: A critical review of the empirical literature. *Arch Sex Behav* 1990; 19: 389.
15. **Diokno AC, Brown MB, Herzog AR.** Sexual function in the elderly. *Arch Intern Med* 1990; 150:197.
16. **Laumann EO, Paik A, Rosen R.** Sexual dysfunction in the United States: Prevalence and Predictors. *JAMA* 1999; 21: 537.
17. **Spector KR, Boyle M.** The prevalence and perceived etiology of male sexual problems. A non-clinical sample. *Br J Med Psychol* 1996; 59: 351.
18. **Bejin A.** Epidemiological d'ejaculation prematuree et de son cumul avec la dysfonction erectile. *Andrologie* 1999; 9: 211.
19. **Romeo JH, Seftel AD, Mahun ZT, *et al.*** Sexual function in men with diabetes type 2: Association with glycaemic control. *J Urol* 2000; 163: 788-791.
20. **Kattan S.** Impotence in Saudi males. Etiology and risk factor. *SMJ* 1996; 17: 350-355.
21. **Shorm S, Lief H, Wien A.** Clinical profile of experience with 130 consecutive cases of impotent men. *Urol* 1979; 13; 511.
22. **Carroll J, Ellis D, Bagley D.** Impotence in elderly, evaluation of erectile failure in men older than seventy years of age. *Urol* 1992; 43: 266-230.