



AN ANALYTICAL CROSS-SECTIONAL STUDY OF CASUES AND RISK FACTORS AFFECTING 50 PATIENTS PRESENTING WITH ERECTILE DYSFUNCTION

Urology

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ABSTRACT

Aims And Objectives

- 1) To study cases of erectile dysfunction and various presentations
- 2) To study various risk factors of erectile dysfunction cases
- 3) To assess characteristics of patient with erectile dysfunction
- 4) To study any relation of erectile dysfunction with other co-morbidities

KEYWORDS

Impotence, Erection, Psychogenic, IIEF, Lifestyle

INTRODUCTION

Erectile Dysfunction –

Erectile dysfunction(ED) defined as the persistent inability to achieve and maintain an erection sufficient to permit satisfactory sexual performance, is an extremely common problem.^{1,2}

Although the condition is considered benign, and may not mean a total loss of sexual satisfaction for some, it often contributes to anxiety, stress, depression and low self esteem.⁵ Personal relationships are negatively affected and a poor quality of life is inevitable. It is often assumed to be a natural aspect of aging and therefore a misfortune that must be accepted. This assumption is not always correct as erectile dysfunction may occur as a result of specific illnesses like DM or CAD or as the consequence of the treatment of others like hypertension.

In India, there is very little data on the prevalence of erectile dysfunction. The Massachusetts Male Aging Study (MMAS), a community based, random sample observational survey of non-institutionalised men, indicated that up to 52% of the male study population aged 40 to 70yrs had some degree of erectile dysfunction. It is estimated that the worldwide prevalence of ED will increase dramatically by 2025.

Pharmacological advances in the management of erectile dysfunction have stimulated more interest in the study of sexual dysfunction with the resultant increase in published research. Prevalence studies unique to local communities are essential and needed because prevalence studies identify potential risk factors and may also serve as predictors of undiagnosed medical conditions.

The majority of experts in the discipline of sexual medicine believe that sexual dysfunctions are multi-determined conditions with biological, psychological and interpersonal elements playing some role in the aetiology. An understanding of the anatomy, physiology and pathology of erectile dysfunction is important in the quest to determine the relationship of this condition with risk factors and co-morbid medical conditions.

Risk Factors Of Erectile Dysfunction

1) Aging

2) Chronic Diseases - Diabetes, Hypertension, Cardiac disease, Renal failure, Depression, Stroke, LUTS, Behcet disease, Hyperlipidaemia, Disc herniation, Obstructive sleep apnoea syndrome, Arthritis

3) Injury-Spinal, Pelvic, Urethral

4) Surgery-Prostatectomy, Open abdominal aortic aneurysm repair

5) Lifestyle factors - Sedentary lifestyle, Obesity, Smoking, Medication

DYSFUNCTION

An alternative classification, based on the proposals of the Nomenclature Committee of The International Society for Sexual and Impotence Research is presented.

A)ORGANIC

- 1) VASCULOGENIC – Arteriogenic, Cavernosal, Mixed
- 2) NEUROGENIC
- 3) ANATOMIC
- 4) ENDOCRINOLOGIC

B) PSYCHOGENIC

Generalized

- 1) Generalized unresponsiveness
 - Primary lack of sexual arousability.
 - Age related decline in sexual arousability

- 2) Generalized inhibition

-chronic disorder of sexual intimacy

Situational

- 1) Partner related

- Lack of arousability in a specific relationship
- Lack of arousability owing to sexual object preference
- High central inhibition owing to partner conflict or threat.

- 2) Performance related

- Associated with other sexual dysfunction/s (E.g. rapid ejaculation)
- Situational performance anxiety (E.g. fear of failure)

- 3) Psychological distress or adjustment related

- Associated with negative mood state (E.g. depression) major life stress, (E.g. death of partner)

The International Index Of Erectile Function (IIEF)

The International Index of Erectile Function (IIEF), which consists of 15 items and 5 domains, is a psychometrically valid and reliable instrument that was developed through consultations with an international panel of experts for use in determining efficacy of treatment in controlled clinical trials. The IIEF is a widely used, multi-dimensional instrument for the evaluation of male sexual function and has a high sensitivity and specificity for detecting real treatment effects or the lack of treatment effects in patients with erectile dysfunction of broad aetiology. It has been used as a gold standard in research and clinical settings for the assessment of erectile function. Based upon principal components analysis and additional expert review, the 15 item questionnaire was divided into 5 domains viz erectile function (questions 1-6), orgasmic function (questions 9-10), sexual desire (questions 11-12), intercourse satisfaction (questions 7, 13-14) and overall sexual satisfaction (questions 8, 15).

ALTERNATE CLASSIFICATION OF ERECTILE

MATERIALS AND METHODOLOGY**Study Design**

An analytic, cross-sectional qualitative study

Study Population

Patient attending Urology OPD with complaint of erectile dysfunction

Inclusion Criteria

- 1) Patient attending the Urology OPD with main complaint of erectile dysfunction
- 2) Patients willing to participate in study

Exclusion Criteria

- 1) Patient having neurological disorder

Sample Size

Consecutive sampling was done for a period of 6 months after Ethical Committee clearance, from period of February 2020 to July 2020. Total of 78 patient came with complaint of ED out of which 50 fulfilled the criteria of inclusion and gave consent to participate in study. Hence only 50 patients were interviewed.

Data Collection And Analysis

The data was obtained using a structured questionnaire proforma. The proforma was self administered at the time of attending the clinic. All participants were requested to sign an informed consent form. None of the participants required an interpreter, who was available, to read out the questionnaire if they were illiterate. The self administered proforma was given to the subject for completion in private. The completed proforma were entered into a computerized data base to check for errors and internal consistency.

ETHICAL CONSIDERATIONS**Ethical Considerations**

- Institutional Ethical committee clearance was obtained.
- Informed consent was obtained from the participants.
- Confidentiality ensured and maintained throughout the study.

OBSERVATION

AGE GROUP	FREQUENCY	PERCENTAGE
18-29	4	8%
30-39	8	16%
40-49	16	32%
50-59	18	36%
>60	4	8%

In our study, we found maximum patients in 50-59yrs age group with steep drop after 60yrs but reason may be less no of patients in that group.

MARITAL STATUS	FREQUENCY	PERCENTAGE
Married	40	80%
Unmarried	10	20%

In our study most of the respondents were married.

OCCUPATION	FREQUENCY	PERCENTAGE
Employed	33	66%
Unemployed	17	34%

In our study 66% of patients were unemployed

BMI	FREQUENCY	PERCENTAGE
<18.5	7	14%
18.5-22.9	30	60%
23-24.9	10	20%
>25	3	6%

BMI criteria for Asian population was selected and the data was analysed, we found maximum people in normal BMI group.

SMOKING	FREQUENCY	PERCENTAGE
Yes	32	64%
No	18	36%

IHD	FREQUENCY	PERCENTAGE
Yes	12	24%
No	38	76%

In our study we found only 24% patients having ischemic heart disease whereas 64% patients with ED were found to be smokers in our study.

DIABETES	FREQUENCY	PERCENTAGE
Yes	37	74%
No	13	26%

HYPER TENSION	FREQUENCY	PERCENTAGE
Yes	34	68%
No	16	32%

74% ED patients were diabetic in our study with hypertension present in 68% of ED patients whereas depression was present in 76% of ED patients in our study.

DEPRESSION	FREQUENCY	PERCENTAGE
Yes	38	76%
No	12	24%

PELVIC TRAUMA	FREQUENCY	PERCENTAGE
Yes	2	4%
No	48	96%

Only 2% patients had history of pelvic trauma.

DISCUSSION

Analytic descriptive study was planned and executed to reveal the characteristics of erectile dysfunction in 50 patients attending Urology OPD. Study period was for 6 months and due to COVID 19 outbreak and resulting lockdown in country very less patients with ED attended the OPD.

In our study we found more number of patients in higher age group, but after age of 60 there is sudden drop in ED which is due to low number of participation and hesitancy for elderly people in India to discuss sexual problems. Erectile dysfunction is experienced at least some of the time by most men who have reached 45 years of age. ED affects men of all ages and the prevalence increases greatly in the elderly (Seftel 2003).

ED was reported in 90 % married male whereas only 10 % before marriage. This trend may be attributed to early marriage in our society and taboo associated with pre marital sex. Some studies have reported that men who have never married have a lower prevalence of ED than married men (Klein et al. 1996, Seyam et al. 2003), whilst higher prevalence has been reported in others (Laumann et al. 1999, Nicolosi et al. 2003b).

In published literature unemployment and low income was associated with higher ED prevalence, but in our study there is higher ED in employed group.

Obesity has been shown to increase the prevalence of ED in some studies (Pinnock et al. 1999, Derby et al. 2000, Araujo et al. 2000, Moreira et al. 2002, Bacon et al. 2003, Vallancien et al. 2003), but no such relationship has been found in others (Feldman et al. 1994a). In our study we found maximum patients in normal weight group and no association was found with ED directly.

A practice-based study in Denmark reported a higher frequency of erectile dysfunction in smokers compared to non-smokers. In our study 64% ED patients were smoker in comparison to 36% in non smoker. Although association cannot be proved through this correlation.

In our study 74% were diabetic showing uncontrolled sugar may have some role in ED development. Similar results have been reported in finding that was consistent with several studies. Spanish study showed a very strong correlation between ED and diabetes with a prevalence that was four times that for non diabetic men. In a German study, the prevalence of ED in hypertensive patients was 36% compared to 19% in the overall population and 16% in normotensives. In our study 68% ED patients had HTN compared to 32% ED in normotensive, showing a higher prevalence of ED in HTN patient.

In our study only 24% ED patients had IHD which is very less number in such a small population whereas mental depression was present in 76% patients with ED in this study which is huge number in such a small population and very less number of ED patients associated with pelvic trauma probably due to small sample size and there are no similar studies to compare results.

BIAS AND LIMITATIONS

Normal patients (other than ED) could not be included in study due to ethical issue raised by ethical committee. No prevalence could be measured in this study. We expected good number of ED patients to participate in study but due to COVID19 pandemic restrictions, very less number of patients with ED attended our Urology OPD thus reducing the study population. During the study we found people to be

very shy and reluctant to talk about sexual problems and ED prevalence seems to be much higher in our society than generally perceived. Hence what we are seeing may be just a tip of the iceberg. The fact that lesser number of elderly patients participated in the study may be the reason for the biased result of low incidence of ED in higher age group. We need better standard questionnaire like IIEF15 for proper evaluation of ED.

CONCLUSION

Most experts in the field of sexual medicine believe that erectile dysfunctions are multi-dimensional conditions, with biological, psychological and rational or interpersonal elements playing some role in their aetiology. Therefore, any valid taxonomic system must be biopsychosocial in nature but retain the capacity to identify distinct subtypes of clinical presentations based upon primary causal agents.

The need for epidemiological studies on sexual disorders is increasing because such conditions may precede a metabolic syndrome of hypertension, diabetes and obesity, whose impacted population is growing rapidly. The early diagnosis of sexual disorders is thought to contribute to the prevention and treatment of metabolic syndrome. In our study although we could not find the prevalence of ED due to small sample size but we found closer association of ED with diabetes, IHD and HTN. We would like to recommend screening those patients with chronic co-morbidities for ED and few questions about ED should always be asked in routine OPD interview.

A lot of debate is going around with link of psychiatry illness and ED. In our study we found depression is linked to ED. Whenever some psychological disorder is identified a cause of ED, proper counselling and treatment should be ensured to the patient.

REFERENCES

1. NIH Consensus Development Panel on Impotence. Journal of American Medical Association 1993; 270: 83–90.
2. Morley JE. Impotence, American Journal of Medicine 1986; 80: 897–905.
3. Feldman HA, Goldstein I, Hatzichristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: Results of the Massachusetts Male Aging Study. The Journal of Urology 1994; 151: 54–61.
4. Aytac IA, McKinlay JB and Krane RJ. The likely worldwide increase in erectile dysfunction between 1995 and 2025 and some possible policy consequences. BJU International 1999; 84: 50–56.
5. MacDonagh R, Ewings P, Porter T. The effect of erectile dysfunction on quality of life: Psychometric testing of a new quality of life measure for patients with erectile dysfunction. The Journal of Urology 2002; 167: 212–217.
6. Kirby R, Holmes S, Carson C. Erectile Dysfunction. 2nd Ed, Oxford Health Press Ltd; 1998.
7. Kolodny RC, Kahn CB, Goldstein HH, Bornett DM. Sexual Dysfunction in Diabetic Men. Diabetes 1974; 13(4): 306–309.
8. Lewis RW, Fugl-Meyer KS, Bosch R, Axel R, Laumann EO, Lizza E, *et al.* A. Epidemiology/ Risk Factors of Sexual Dysfunction. Journal of Sexual Medicine 2004; 1(1): 36–39.
9. Saenz de Tejada I, Angulo J, Celtek S, Gonzalez-Cadavid N, Heaton J, Pickard R, *et al.* Pathophysiology of Erectile Dysfunction Journal of Sexual Medicine 2005; 2: 26–39.
10. Buils A, Gold L, Clark W. Systematic review of randomized controlled trials of Sildenafil in the treatment of male Erectile dysfunction. British Journal of General Practice 2001; 51: 1004–1013.
11. Guiliano F. Introduction advances in the treatment of erectile dysfunction, European Urology Supplement 2002; 1: 1–3.
12. Cho BL, Kim YS, Cho YS. Prevalence and risk factors for erectile dysfunction in Primary care. Results of a Korean study 2003; 15: 323–328.
13. Nolasco C, Bellora O, Lo'pez M, Surar D, Va'zquez J, Rosenfeld C *et al.* Prevalence of sexual dysfunction in Argentina. International Journal of Impotence Research 2004; 16: 69