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Original Research Article

Study of sexual side effects in patients undergoing treatment with anti-depressants

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ABSTRACT

Background: Sexual side effects with psychotropic medications can cause major distress. Antidepressants are known to cause sexual side effects.
Aim: To study the sexual side effects in patients undergoing treatment with anti-depressants.
Materials and Methods: Sixty patients of both genders undergoing treatment with antidepressants and having sexual complaints due to medicines were evaluated. A semi structured questionnaire was used to record demographic details. Arizona Sexual Experience Scale (ASEX) was used to assess sexual dysfunction.
Results: In our study majority patients were males 42 (70%) and diagnosed as having major depressive disorder 51 (85%). SSRIs were main agent responsible for the same 46 (76.7%).
Conclusions: Majority patients reported sexual side effects with antidepressants which can affect their subjective quality of life. Hence, patients should be assessed properly for sexual issues and treated accordingly.

1. Introduction

The Bio-Psycho-Social model, aims to understand the holistic nature of human psyche, and upon this tenet the treatment plans should be based. Sexual symptoms can cause major distress and conversely psychological illnesses may have a sexual symptom as its phenomenology, or the sexual symptom may result as a consequence of the side effect of pharmacotherapies.[1]

Studies have highlighted the sexual side effects of psychotropic medications. However psychological states such as anxiety, depression, social phobia, obsessive compulsive disorder or post-traumatic stress disorder also cause sexual dysfunction. There is an increased prevalence of sexual dysfunction in patients of psychotic disorders, especially those who are being treated with psychotropics.[2,3] Sexual dysfunctions have been reported in 30-60% of schizophrenic patients on treatment with antipsychotics and up to 78% in patients of depression being treated with antidepressants.[4–7] Prevalence is higher; up to 80% in patients of anxiety undergoing treatment.[8,9] Similarly, antipsychotics and mood stabilizers also cause sexual dysfunctions.[10]

Depressive disorders occur in about 10% of population, thus affecting the quality of life and general functioning of one's life. Depressive episodes are generally associated with decreased libido. Age also is a factor for decrease in sexual activity. In depression patients may has low libido and arousal. Erectile dysfunction is prevalent in up to 90% in patients with severe depression.[11] The use of selective serotonin reuptake inhibitors (SSRI's) in depression is generally associated with significant side effects such as low desire and difficulty in orgasm.[9] Increased prevalence

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in sexual side effects because of SSRIs and selective norepinephrine reuptake inhibitors (SNRIs) is due to their action on 5-HT2 receptors.[6]

Hence, it is assumed that antidepressants, can also by virtue of sexual side effects can add to the patient's sexual distress. On this premise, this study was planned to observe the sexual side effects of anti-depressants in patients suffering from major depressive disorder and to correlate with various demographic and phenomenological factors.

2. Materials and Methods

The study was conducted in a multi-specialty hospital for a period of six months after obtaining clearance from institutional ethics committee. Married patients of either gender in the age group of 25-45 years, undergoing treatment with antidepressants only and taking medications for at least 12 weeks were included. Those already having any sexual disorders and comorbid medical condition and substance use were excluded. Written informed consent was taken from patients and their confidentiality was assured. Diagnosis of psychiatric condition was made based on Diagnostic and Statistical Manual-IV TR,[12] 630 patients were screened in the six months period, of which 410 did not fulfilled the selection criteria as many were on combination of medications, some had comorbid illnesses. Of remaining 220, 100 of them did not give consent; of remaining 120, 60 of them had not been regularly compliant to treatment so were excluded. Finally 60 patients were enrolled.

Arizona Sexual Experiences Scale (ASEX) was used for the assessment of sexual functions such as drive, arousal, erection/ lubrication, orgasm. It is rated on 5 items, with scores ranging from 1-6, on Likert scale. A total score of >18 on the Arizona Sexual Experiences Inventory (ASEX) or a score of 5 or greater on any one item or a score of 4 on 3 or more items is associated with clinical sexual dysfunction. Higher score is indicative of higher dysfunction. It is brief, reliable and valid tool in which questions are short and easy. Being a bimodal scale, it measures both reduced and enhanced sexual functioning. Its major setback is that the scores are very subjective, due to cultural beliefs and life style biased interpretation.[13,14]

3. Results

The mean age of the sample was 36.25 ± 6.38 years in which 70 percent were males and 30 percent were females. Majority of them were Hindus (80%) [Table 1]. The mean duration of psychiatric illness was 47.80 ± 35.19 months and mean duration of psychopharmacological treatment was 43.40 ± 32.81 months. Most common diagnosis was major depressive disorder (85%) and most common antidepressant used were SSRIs causing sexual side effects (76.7%) [Table 2].

The mean ASEX score was 21.82 ± 2.25 and mean duration of sexual side effects was 12.62 ± 7.96 months. Majority of patients had high scores on ASEX (19 or more) suggestive of serious sexual dysfunction (93.3%) due to ongoing antidepressant. Most common responsible agent was SSRI in which sertraline showed maximum side effects in 40% patients followed by escitalopram (25%) [Table 3].

ASEX score had positive correlation with age of patients, duration of illness and duration of treatment but these were not statistically significant. Females had more mean scores on ASEX than males and it was statistically significant [Table 4].

4. Discussion

The normal sexual functioning in normal humans generally comprises sexual activity which includes transition through different phases of the sexual cycle. These transitional phases range from arousal state to ejaculation and subsequent relaxation without any problem. These are accompanied with a feeling of pleasure, fulfillment and satisfaction.[15]

Some of the psychological illnesses have been fraught with symptoms which pertain to sexuality. But owing to cultural constrains and to the physician factor, these symptoms get mostly overlooked or are given just little importance. At times patients, because of the reluctance to bring their sexual problems to the fore, reveal very less to the clinicians. This fact is evidently seen in the history taking and data collection and also in the course of the study. The psychiatric practice relies heavily on the biological modalities of treatment, including the use of pharmacological agents. So the patients are exposed to the side effects of pharmacological therapy along with the therapeutic effects. These side effects, mostly the sexual ones, usually go unnoticed or under reported because of the nature of them.[16]

Our study has shown that the patients on treatment with antidepressants to an extent had sexual side effects, but the nature of these varied according to the group of antidepressants used. Other factors such as age of the patient, type of symptoms, dosage of medications and duration of illness also affect the sexual side effects in the patients.

In our study MDD was the main diagnosis and SSRIs were the main line of management. This finding is similar to that of Koirala B et al where most of the patients of mood disorders were having depression as diagnosis and SSRIs as main treatment.[17] There has been a marked shift in the prescription of antidepressants with the use of Selective Serotonin reuptake inhibitors (SSRIs) replacing the use of Tricyclic antidepressants (TCAs). SSRIs have fewer side effects as compared to other antidepressants and most importantly they lack anticholinergic action. But one of their major setbacks is the side effect of impairment in

Table 1: Demographic details of study population

Parameter (N = 60)		**Mean ± S.D./ Frequency**
Age in Years		36.25 ± 6.38 (24-45)
Gender	Male	42 (70%)
	Female	18 (30%)
Religion	Hindu	48 (80%)
	Non- Hindu	12 (20%)

Table 2: Phenomenological details of study population

Parameter (N = 60)		**Mean ± S.D./ Frequency**
Duration of Illness (in months)		47.80 ± 35.19 (4-192)
Duration of Treatment Taken (in months)		43.40 ± 32.81 (4-180)
Diagnosis	Major Depressive Disorder	51 (85%)
	Obsessive & Compulsive Disorder	5 (8.3%)
	Generalized Anxiety Disorder	2 (3.3%)
	Panic Disorder	2 (3.3%)
Class of Medication Used	SSRIs	46 (76.7%)
	TCA	14 (23.3%)

Table 3: Details of sexual side effects seen

Parameter (N = 60)		**Mean ± S.D./ Frequency**
ASEX Score		21.82 ± 2.25 (16-26)
Duration of Sexual Side Effects (in months)		12.62 ± 7.96 (1-36)
Sexual Side Effects (ASEX ≥ 19)	Present	56 (93.3%)
	Absent	4 (6.7%)
Drug responsible for Sexual Side Effect	Sertraline	24 (40%)
	Escitalopram	15 (25%)
	Fluoxetine	6 (10%)
	Fluvoxamine	1(1.67%)
	Amitriptyline	6 (10%)
	Clomipramine	5 (8.33%)
	Imipramine	3 (5%)

Table 4: Association of sexual side effects with various factors

ASEX Score (N = 60)	**Age of patient**	**Duration of Illness**	**Duration of Treatment**	**Gender (Mean ± S.D.)**
r value	0.22	0.16	0.19	Males= 21.84 ± 2.28 Females = 22.68 ± 2.25
p value	0.09	0.22	0.14	t = -3.76, p <0.01*

sexual functions which can be in the form of inhibition of orgasm, low desire or impairment of arousal.[8] In our study, Sertraline caused the majority of the sexual side effects amongst the SSRIs, patients on TCAs were much less compared to SSRIs. This finding was similar to Reimherr et al who found a high percentage of sexual dysfuntion in men treated only with sertraline (SSRI) in comparison to those treated with amitriptyline (TCA).[18] Our study also found positive correlation of ASEX with duration of illness and duration of treatment though not statistically significant. Study by Thakurta et al. showed that sexual dysfunction in depressed patients had significant correlation with severity of depression and duration of illness.[19]

5. Conclusions

The sexual side effects of pharmacological agents used in treatment of psychiatric illnesses can affect the quality of life of the patient and can mire the treatment outcome, including noncompliance. The most important clinical issue to be addressed by a clinician is, how to tackle the sexual side effects which is a great challenge in the treatment of a patient. Thus, it becomes imperative that from the out start itself the treating physician should make a conscious effort to delve into the sexual histories properly, so as to make a proper assessment of sexual functioning before starting treatment. There should be a satisfactory sense of awareness in the treating physician, regarding the sexual side effects of different psychotropic agents; and accordingly the choice of

it is to be made considering the possibility of sexual side effects, such that such side effects can be attended to in a timely fashion. Psychopharmacology offers a wide variety of molecules to choose from, and with a firm knowledge of these molecules the clinician can make a choice of a more favourable medicine, which will have fewer side effects.

Psychoeducation and psychotherapies of the patients should be given a greater credence in maintaining patients along with the pharmacotherapy. It's also important to make sure the patients are not influenced by the cultural taboos and their personal issues should be discussed with greater openness.

The sexual side effects whenever identified needs to be dealt with at the earliest. The cornerstone of the management of sexual side effect need to be based on educating the patient and his or her spouse, such that the catastrophic experience of a threatened sexuality can be addressed and the distress mitigated in the process.

Limitations of our study was that sample was small and it was a cross-sectional study. Also, effect of treatment of sexual side effects while continuing antidepressants was not studied.

6. Conflicts of Interest

None.

7. Source of Funding

None.

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