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Review Article

Sexual dysfunction due to SSRI antidepressants: How to manage?

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ABSTRACT

Selective Serotonin Reuptake Inhibitors (SSRIs) are a group of commonly prescribed antidepressants in clinical practice. Sexual dysfunction is a common side effect of SSRIs, which often goes unrecognized but adversely affects the quality of life of the patient. This review takes a look at the occurrence of sexual dysfunction among patients receiving SSRIs from a clinical viewpoint. The review explores into the possible reasons of such a dysfunction and the differential diagnoses to be entertained while dealing patients receiving SSRIs and experiencing sexual dysfunction. The review discusses the management strategies for addressing such dysfunction due to SSRIs, including cessation or reduction of dose, changing to another antidepressant, augmentation with another antidepressant, additional use of medications for erectile dysfunction and use of other add-on strategies. The choice of a specific strategy should be customized to individual needs of the patient.

1. Introduction

Selective Serotonin Reuptake Inhibitors (SSRIs) are antidepressants which act primarily through the serotonergic system in the central nervous system. Due to their efficacy and fairly good safety profile, they are the most commonly prescribed antidepressants.[1,2] They are prescribed by not only psychiatrists, but also general physicians and other specialists.[3–5] The class of SSRI antidepressants include molecules like esctialopram, fluoxetine, fluvoxamine, paroxetine and sertraline. Though these medications have a proven efficacy for a range of depression and anxiety spectrum disorders, these drugs are associated with significant sexual side effects.[6–8] The typical SSRI antidepressants, their indications and side effects are mentioned in Table 1.

A considerable proportion of the patients prescribed SSRI antidepressants experience sexual side effects.[9–11] Such sexual side effects can manifest as reduced or poor sexual desire, erectile dysfunction, delayed ejaculation or anorgasmia. Despite experiencing such symptoms, patients often do not spontaneously report such sexual problems. Also, physicians and psychiatrists do not enquire routinely about sexual side effects of medications. The sexual problems experienced

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Table 1 – Selective serotonin reuptake inhibitors (SSRIs).

Overview
Representative SSRI antidepressants and their usual doses
Escitalopram (5–20 mg/day)
Fluoxetine (20–60 mg/day)
Fluvoxamine (100–300 mg/day)
Paroxetine (12.5–37.5 mg/day)
Sertraline (50–200 mg/day)
Selected typical indications
Depression
Dysthymia
Generalized anxiety disorder
Obsessive compulsive disorder
Panic disorder
Phobic disorders
Mixed anxiety depression
Adjustment disorder
Sexual side effects
Anorgasmia
Decreased sexual desire
Delayed ejaculation
Erectile dysfunction

may result in poor quality of life and marital dissatisfaction, if not addressed appropriately. Hence, there is a need for greater awareness about sexual side effects of SSRIs as well as the ways of managing it. This brief review takes a look at the incidence of SSRI-induced sexual side effects, the aetiology thereof, the differential diagnoses and the management options for addressing this problem.

2. The extent of SSRI-induced sexual dysfunction

The incidence of SSRI-induced sexual dysfunction has been evaluated in clinical trials and prospective observational studies. These have been summarized in various systematic reviews and meta-analyses. The mean rate of sexual dysfunction encountered by patients receiving SSRIs has been reported to be about 40% in pooled analysis.[12] Individual studies have reported the rate of sexual dysfunction from as low as 7% to more than 70%.[9,13] This could be ascribed to the varied nature in which assessment of sexual dysfunction has been made and the medication regimen used.

The reported rates of sexual dysfunction have differed across the different SSRIs. The rates of sexual dysfunction have been found to be higher for citalopram (or escitalopram) and paroxetine, as compared to fluoxetine, fluvoxamine and sertraline.[9] A network meta-analysis of placebo-controlled randomized trials found that the weighted mean rate of sexual dysfunction for fluoxetine to be 8.8%, escitalopram to be 9.3%, paroxetine to be 15.1% and sertraline to be 15.3%.[12] However, this analysis did not show statistically significant differences in the rates of sexual dysfunction between escitalopram, fluoxetine, paroxetine and sertraline. The rates of sexual dysfunction in meta-analysis of randomized trials seem to be lower than observational studies, probably because randomized trials have been of shorter duration and had a greater focus on other serious adverse events during ascertainment. Sexual dysfunction seems to be more common in men as compared to women.[9,14] This might be primarily accounted for by the erectile dysfunction being the most common sexual dysfunction among men, but absent among women. Women receiving SSRIs primarily experience decreased sexual desire.

The discordance of rates of sexual dysfunction across the various studies can be attributed to several factors. Firstly, sexual dysfunction is not an observable phenomenon and need to be explored by the treating physician. The self-reported rates of sexual dysfunction due to SSRIs are considerably lower than rates with systematic inquiry by the physician about sexual dysfunction.[15,16] Thus, the rates of sexual dysfunction would vary according to whether it is self-reported or clinician rated, with the sensitivity and training of the clinician and the privacy afforded. Secondly, the rates of sexual dysfunction reported also depend upon the assessment instrument utilized. Several standardized questionnaires are available which assess sexual dysfunction, each with a different perspective of determining sexual dysfunction.[17] Thirdly, the dose of the SSRIs medication may be variable across the studies, which may also influence the rates of sexual dysfunction. Fourthly, the frequency of assessment also may influence the rate of sexual impairment observed. Sexual dysfunction with SSRIs may emerge after a few weeks of initiation and may remit spontaneously. Hence, closely spaced assessments may yield greater rates of sexual dysfunction that widely spaced ones. Though various factors explain the difference in the rates of sexual dysfunction across studies, but the common theme remains that sexual dysfunction affects a considerable proportion of patients receiving SSRIs.

3. Aetiology of sexual dysfunction due to SSRI

The sexual response involves both excitatory and inhibitory mechanisms at the central and peripheral levels.[18] It has been suggested that norepinephrine mediates the central arousal system via the disinhibition of dopaminergic system, and possibly through testosterone mechanism. Serotonergic and neuropeptidergic mechanisms on the other hand have been implicated in the inhibition of central sexual arousal. Rather than an absolute inhibitory effect, serotonin has been suggested to have a modulating effect on the sexual functioning.[19] SSRI comparatively increases the serotonergic system than the noradrenergic system, and hence can lead to the occurrence of sexual dysfunction in the form of impaired desire. The mesolimbic dopaminergic activity is reduced due to inhibitory serotonergic midbrain raphe nuclei projections, which may also result in reduced desire.[20] The delayed ejaculation and anorgasmia with SSRIs have been attributed to increased serotonergic tone. This occurs due to inhibition of ejaculation at the level of the hypothalamus.[21] Noradrenergic tone on the other hand promotes ejaculation, which concurs with the finding that noradrenergic antidepressants such as amitriptyline have milder degree of sexual dysfunction as compared to SSRIs.