Canterbury District Health Board
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Clinical Pharmacology Bulletin

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May 2006 No. 006/06

Sexual dysfunction associated with SSRIs

Introduction

Sexual dysfunction can be an important problem for patients with major depression. It is also a commonly reported side effect of antidepressant therapy and in particular of the selective serotonin reuptake inhibitors (SSRIs). Antidepressant-induced sexual dysfunction may be one of the reasons for patient non-compliance and premature discontinuation of therapy. Therefore, there is the potential for higher rates of relapse and recurrence of depression. The following table, extracted from a study of 4557 patients, shows the incidence of sexual problems with depression and with various antidepressants. As can be seen, the evidence supporting drug causality is not very convincing.

	Spontaneously reported sexual problems	Sexual problems elicited by patient questioning
No drug	30%	68%
Tricyclic	43%	76%
SSRI	43%	75%
Serotinin and noradrenaline reuptake inhibitor	39%	73%
Other (including moclobemide)	32%	69%

Five SSRIs are currently available in New Zealand: fluoxetine, paroxetine, sertraline, citalopram and escitalopram. The following bulletin discusses SSRI induced sexual dysfunction and potential management options.

Mechanism

SSRIs decrease the reuptake of serotonin by the nerve terminals, thereby raising serotonin concentrations in the synaptic cleft. This has various consequences including reduction of the desire and arousal phases of the sexual response cycle (desire, arousal, orgasm and resolution). There is also some suggestion that serotonin may exhibit peripheral effects such as inhibition of nitric oxide production (involved in the mechanism of erection).

Incidence

The reported rates of SSRI induced sexual dysfunction ranges from 30% to 70%. All SSRIs have the propensity to cause sexual dysfunction, but the reported incidence varies between individual SSRIs. As all SSRIs act by the same mechanism it is unclear whether any one individual drug is more likely to cause sexual dysfunction than another. In practice, it may be difficult to establish whether sexual dysfunction relates to the depression itself or to its treatment.

Risk factors and other potential causes of sexual dysfunction

Risk factors for sexual dysfunction include:

- aged 50 years or older
- having less than a tertiary education
- not being in full time employment
- high alcohol consumption
- smoking
- depression
- prior history of sexual dysfunction
- diabetes mellitus
- hypertension
- cardiovascular disease
- obesity

Some other drugs can also affect sexual function such as beta-blockers and calcium channel blockers.

Management options

A number of treatment options have been suggested to manage SSRI induced sexual dysfunction:

- *Dose reduction of the SSRI*. Decreasing the dose of SSRIs may decrease sexual side effects. This has not been formally studied but has been used in practice with some success. Caution must be taken to avoid reducing to subtherapeutic doses.
- *Waiting for tolerance to develop*. This approach is generally not recommended, as it is typically not successful.
- *Switching to an alternative SSRI*. There have been no comparative studies to show whether one SSRI has a lower propensity to cause sexual side effects than another. However, this approach may be worth considering in some patients.
- *Switching to an antidepressant from a different class*. Bupropion and moclobemide are antidepressants that appear to have the least effects on sexual function. It may be worth switching to one of these if other management options are not appropriate or effective.
- *Adding in a second drug to counteract the sexual side effects*. A number of drugs have been investigated in combination with SSRIs to alleviate sexual dysfunction. Small studies have shown that sildenafil can improve erectile function, arousal, ejaculation, orgasm and overall satisfaction. Use of bupropion or buspirone may be helpful but the data are conflicting.
- *Use of a drug holiday*. This has not been well studied in patients with SSRI induced sexual dysfunction and there are no good data to support their use.

Summary

Sexual dysfunction is a common side effect reported with the SSRIs. Dose reduction of SSRIs appears to reduce sexual side effects but runs the risk of diminishing antidepressant efficacy. Other treatment options include switching to a different antidepressant with a lower propensity to cause sexual side effects, such as moclobemide or bupropion, or using a drug to counteract SSRI induced sexual side effects, such as sildenafil.