

# 97 - Effects of depression

## Effects of depression

426 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 3 Antidepressants and sexual dysfunction Sexual dysfunction is common in the general population, although reliable frequency data are lacking.<sup>1</sup> Reported prevalence rates vary depending on how sexual dysfunction is defined, assessed and the method of data collection.<sup>1</sup> Physical illness, psychiatric illness, substance misuse and prescribed drug treatment can all cause sexual dysfunction.<sup>2</sup> People with depression are more likely to have obesity,<sup>3</sup> diabetes<sup>4</sup> and cardiovascular disease<sup>5</sup> than the general population, making them more likely to suffer sexual dysfunction without any influence of depression or antidepressants themselves. Before beginning antidepressants, baseline sexual functioning should be determined to set a baseline against which the effect of antidepressants can be measured. Treatment-emergent sexual dysfunction adversely affects quality of life and may contribute to reduced compliance.<sup>6</sup> Questionnaires or rating scales can be useful (for example, the Arizona Sexual Experience Scale).<sup>7</sup> If scales are not used then direct questioning should be employed, as it is much more effective than relying on spontaneous patient reporting.<sup>8</sup> Complaints of sexual dysfunction may indicate progression or inadequate treatment of underlying medical or psychiatric conditions but may also be the result of drug treatment.<sup>6</sup> Effects of depression Both depression and the drugs used to treat depression can cause disorders of desire, arousal and orgasm. The precise nature of the sexual dysfunction may indicate whether depression or treatment is the more likely cause. For example, 40–50% of people with depression report diminished libido and problems regarding sexual arousal in the month before diagnosis (and therefore treatment), but only 15–20% experience orgasm problems before taking an antidepressant.<sup>9</sup> The degree of loss of libido appears to correlate with depression severity.<sup>10</sup> Although many patients experience treatment-emergent sexual dysfunction while taking antidepressants, in others the reduction in depressive symptoms can be accompanied by improvements in sexual desire and satisfaction.<sup>6,11</sup> Improvements are more common among those who respond to antidepressant treatment.<sup>6</sup> For example, a post-hoc analysis of data from the STAR\*D (Sequenced Treatment Alternatives to Relieve Depression) study revealed that sexual dysfunction was problematic in 21% of patients whose depression remitted with citalopram treatment compared with 61% of those whose depression did not remit.<sup>12</sup> Effects of antidepressant drugs Antidepressants can cause sedation, hormonal changes, disturbance of cholinergic/ adrenergic balance, peripheral alpha-adrenergic agonism, inhibition of nitric oxide and increased serotonin neurotransmission. Any or all of these actions may result in sexual dysfunction. Sexual dysfunction has been reported as an adverse effect of all antidepressants, although rates vary and some have reported rates similar to or below that of placebo (Table 3.17). Individual susceptibility also varies and may be at least partly genetically determined.<sup>13</sup> Not all of the sexual effects of antidepressants are undesirable.

Serotonergic antidepressants, including clomipramine, are effective in the treatment of premature ejaculation<sup>6,14</sup>

Depression and anxiety disorders CHAPTER 3 Table 3.17 Relative frequency of sexual dysfunction (SD) with antidepressants.<sup>10,13,15-17</sup> Antidepressant Impact on sexual response Comments<sup>13</sup>  
Sexual desire\* Sexual arousal† Orgasm‡ Agomelatine - - - Rates of SD similar to placebo<sup>6</sup>  
Bupropion - +/- - Low rates of SD compared with most antidepressants.<sup>18</sup> Good evidence that SD occurs at or below the rate of placebo. Less robust evidence for dextromethorphan-bupropion but rates of SD also appear to be low.<sup>19</sup> Duloxetine ++ + ++ Rate of SD similar to some SSRIs and venlafaxine<sup>18</sup> Levomilnacipran ? ++ ++ Limited comparative studies with other antidepressants<sup>20</sup> so relative frequency of SD is uncertain. Erectile dysfunction and disorders of ejaculation shown in RCTs.<sup>21</sup> Monoamine oxidase inhibitors ++ ++ ++ Limited evidence though reported incidence of SD ranges from 20-42%. Rates of SD with transdermal selegiline are comparable to placebo.  
Mirtazapine + - - Causes less SD than SSRIs<sup>22</sup> Moclobemide - - - Consistently shown to have a low risk of SD Reboxetine - + - Probably causes less SD than SSRIs/SNRIs though anti-depressant efficacy has been questioned<sup>23</sup> SSRIs ++ ++ ++ High rates of SD with all SSRIs (although reported incidence varies widely).<sup>13</sup> Rates of anorgasmia may be lower with fluvoxamine.<sup>24</sup> Trazodone - + + Priapism reported in case studies. However, overall reports of SD seem to be low. Early case reports documented increased sexual desire. Tricyclics ++ ++ ++ SD more common with clomipramine (particularly anorgasmia), amitriptyline and imipramine. Less common with secondary amine TCAs (desipramine, nortriptyline, lofepramine). Venlafaxine ++ ++ ++ High rates of SD. Isolated case reports of increased libido, orgasm and spontaneous erections.  
Vilazodone + + + Rates of SD possibly lower than citalopram and similar to placebo in RCTs. However, a clear advantage over other antidepressants remains uncertain.<sup>20</sup> Vortioxetine - + + Rates of SD probably lower than duloxetine and paroxetine,<sup>25</sup> and reportedly similar to placebo at doses 10mg/day or less<sup>23,26</sup> Key: ++, common; +, may occur; -, absent or rare; ?, unknown/insufficient information. \* Or sex drive. † Ease of arousal and ability to achieve lubrication or erections. ‡ Ease of reaching orgasm and orgasm satisfaction.

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