



St. Thomas, the Virgin Islands

PIC QUESTION OF THE WEEK: 1/12/09

Q: What is the role of sildenafil in treating women with sexual dysfunction secondary to the use of SSRIs?

A: Antidepressant medications are some of the most commonly prescribed drugs in medical practice. They specifically include the selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors (SNRIs), and related compounds. Sexual dysfunction is a frequent adverse effect of these medications and is primarily seen in women. Classic symptoms of sexual dysfunction due to antidepressants include a decrease in sexual interest, delayed or absent orgasm, reduced vaginal lubrication, and a reduction in sexual activity. A recent review of the literature indicates that bupropion is the least likely of the newer antidepressants to produce sexual dysfunction, whereas paroxetine is the most frequent cause of this adverse effect. These drugs may affect sexual function secondary to their serotonergic, anticholinergic, and/or alpha-blocking activity. Sildenafil is a selective phosphodiesterase type 5 (PDE5) inhibitor that has been proven effective for the treatment of erectile dysfunction in men. Although not labeled for the indication, it has occasionally been used in women with sexual dysfunction. Female genital tissue contains PDE5 receptors, thus indicating a possible basis for use of sildenafil and related PDE5 inhibitors such as tadalafil and vardenafil in women with sexual dysfunction secondary to the use of SSRIs. A relatively recent study evaluated the benefit of sildenafil in 98 post-menopausal women experiencing sexual dysfunction while receiving SSRIs. Patients in this eight-week, prospective, randomized, double-blind, placebo-controlled trial received an initial 50mg daily dose of sildenafil that was increased to 100 mg based on the investigators' evaluation of efficacy and tolerability. The main outcome criterion in the study was the mean difference in change from baseline to study end based upon the Clinical Global Impression sexual function scale. Results indicated that women in the treatment group produced a score of 1.9 compared to 1.1 in those individuals in the placebo group. The authors concluded that sildenafil administration may be beneficial for women suffering from sexual dysfunction during administration of SSRIs and other antidepressants. Further study is necessary to substantiate this use of the drug.

References:

- Nurnberg HG, Hensley PL, Heiman JR, et al. Sildenafil treatment of women with antidepressant-associated sexual dysfunction. *JAMA* 2008;300:395-404.
- Gartlehner G, Gaynes BN, Hansen RA, et al. Comparative benefits and harms of second-generation antidepressants: background paper for the American College of Physicians. *Ann Intern Med* 2008;149:734-50.
- Sildenafil (Viagra) for antidepressant-induced sexual dysfunction in women. *Pharmacist's Letter/Prescriber's Letter* 2008;24(9):2409.
- Gregorian RS, Golden KA, Bahce A, et al. Antidepressant-induced sexual dysfunction. *Ann Pharmacother* 2002;36:1577-89.

Brandon J. Lawatsch and Sarah G. Stramat, Pharm.D. Candidates

The PIC Question of the Week is a publication of the Pharmaceutical Information Center, Mylan School of Pharmacy, Duquesne University, Pittsburgh, PA 15282 (412.396.4600).