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Research Highlight

Does erectile dysfunction drug use contribute to risky sexual behavior?

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Erectile dysfunction (ED) is a common sexual problem affecting up to one-third of men throughout their lives. According to the Massachusetts Male Aging Study (MMAS), ED affects an estimated 52% of men between the ages of 40 and 70. With the approval of sildenafil (USA in March 1998), the first phosphodiesterase type 5 (PDE-5) inhibitor to be made available for treatment of ED, and the subsequent approval of vardenafil (USA in August 2003) and tadalafil (USA in November 2003), the PDE-5 inhibitor class of drugs has rapidly become the first-line therapy for ED of varying etiologies and severities.

Although PDE-5 inhibitors have become commonplace in ED treatment, there is concern that the use of ED drugs may promote the transfer of sexually transmitted diseases (STDs). In a recent issue of *Annals of Internal Medicine*, Jena *et al*. [1] analyzed differences in the prevalence of STDs among men who use ED drugs versus those who do not using a claims database. The authors found that users of ED drugs had higher rates of STDs, particularly HIV and Chlamydia infection, than nonusers in both the year before and after ED drug therapy. This is a surprising observation and suggests that the use of ED drugs does not directly influence STD prevalence, but that the personality and situational factors of the ED drug user may be of greater importance.

STDs are prevalent in the older adult population. Currently, 10%–20% of people living with HIV/AIDS are 50 years of age or older [2]. There are many factors that contribute to a vulnerability to infection such as diminishing immune system competence, thinning of vaginal walls, blood transfusion, misdiagnosis, and unprotected sex. According to a study on the prevalence of sexual dysfunction in HIV-positive men, up to 33% of the population studied had moderate to severe ED and 24% had moderate to severe impairment of sexual desire [3]. The high prevalence of sexual dysfunction in HIV-positive men is associated with older age, heterosexual status, recreational drug use, depression, use of antidepressants and/or psychotropic medications, and duration of antiretroviral therapy [4].

In the study by Jena and colleagues, a total of 1 410 806 men older than 40 years of age were followed in an insurance claims database, including 33 968 men with at least one filled prescription for PDE-5 inhibitors and 1 376 838 patients without prescription [1]. Despite the large sample size used, it is difficult to make a claim about whether PDE-5 inhibitor therapy directly affects STD rates. The authors astutely point out that selection bias precludes this claim. Another recent cross-sectional study by Cook *et al*. [5] failed to show a significant association between the use of ED drugs and risky sexual behavior or STDs; however, the number of participants enrolled in that study (2 700) was significantly less than that of the study by Jena and colleagues (1 410 806). Many aspects of the ED treatment cohort need to be further delineated to determine the cause of differences in STD prevalence, including psycho-

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logical profiles, sexual practices, and personality inclinations. Level of sexual education should also be determined to understand the patient's knowledge of safe sex practice and risk factors for disease.

This manuscript reinforces the fact that patient education should be the cornerstone for STD prevention, regardless of age group. Whether a patient is on PDE-5 inhibitors or not, their concept of sex and sexual behavior should be explored. All patients who are starting PDE-5 inhibitor therapy need to be counseled on the risks and benefits associated with ED drug use,

and should participate in a frank discussion about sexual practices to dissuade high-risk behaviors. Also, proper screening tools could be implemented to determine the patient's STD status before resuming sexual activity.

References

1   Jena AB, Goldman DP, Kamdar A, Lakdawalla DN, Lu Y. Sexually transmitted diseases among users of erectile dysfunction drugs: analysis of claims data. Ann Intern Med 2010; 153: 1–7.

2   Asboe D, Catalan J, Mandalia S, Dedes N, Florence E, *et al*. Sexual dysfunction in HIV-positive men is multi-factorial: a study of prevalence and associated factors. AIDS Care 2007; 19: 955–65.

3   Sadeghi-Nejad H, Wasserman M, Weidner W, Richardson D, Goldmeier D. Sexually transmitted diseases and sexual function. J Sex Med 2010; 7: 389–413.

4   Levy-Dweck S. HIV/AIDS fifty and older: a hidden and growing population. J Gerontol Soc Work 2005; 46: 37–50.

5   Cook RL, McGinnis KA, Samet JH, Fiellin DA, Rodriquez-Barradas MC, *et al*. Erectile dysfunction drug receipt, risky sexual behavior and sexually transmitted diseases in HIV-infected and HIV-uninfected men. J Gen Intern Med 2010; 25: 115–21.