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FILE: ▪ Maca (*Lepidium meyenii*)
▪ Sexual Dysfunction
▪ SSRI Antidepressants

HC 110582-369

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RE: High-Dose Maca May Improve Sexual Function and Libido Reduced by SSRIs

Dording CM, Fisher L, Papakostas G, et al. A double-blind, randomized, pilot dose-finding study of maca root (*L. Meyenii*) for the management of SSRI-induced sexual dysfunction. *CNS Neurosci Ther*. 2008;14:182-191.

A common adverse effect associated with antidepressant therapy is sexual dysfunction. There are numerous studies in animals that demonstrate the sexual enhancing and spermatogenic effects of maca (*Lepidium meyenii*) root. Also, there is anecdotal evidence from South America that supports the use of maca for sexual dysfunction. However, there are few peer-reviewed English language journal reports in humans to support these claims. One clinical study showed maca increased libido, but did not affect anxiety or depression scores in healthy men compared to placebo,[1] while a recent study found improvement in anxiety and depression and less sexual dysfunction in postmenopausal women when using maca versus placebo.[2] The purpose of this study was to determine whether maca root is effective for the treatment of selective-serotonin reuptake inhibitor (SSRI)-induced sexual dysfunction in a double-blind, randomized, parallel group, dose-finding study of subjects with regressed depression.

Twenty outpatients (mean age 36 years; 17 women, 3 men) with major depressive disorder in remission (Hamilton Rating Scale for Depression [HAM-D] < 10) and taking a stable dose of an SSRI for at least 8 weeks participated in this study conducted at the Massachusetts General Hospital, Boston, MA. The group used 8 different SSRIs; 9 subjects also used other psychotropic drugs. The participants were required to experience at least 1 of the following for at least 4 weeks: (1) inability to have an orgasm during sexual activity, (2) clinically significant orgasm delay with masturbation or intercourse, (3) inability to attain or maintain until completion of sexual activity an adequate erection, or for women, inadequate lubrication swelling response of sexual excitement, or (4) decreased libido. Subjects had no sexual dysfunction prior to taking the antidepressant, and there had to be a clear temporal relationship between the sexual dysfunction and the antidepressant treatment. Subjects (n =

10/group) received either 1.5 g/day or 3.0 g/day maca (A Healthy Alternative; Long Island, NY) for 12 weeks. Sexual function was assessed every 2 weeks with the Arizona Sexual Experience Scale (ASEX) and the Massachusetts General Hospital Sexual Function Questionnaire (MGH-SFQ). Patients also tracked sexual attempts in a diary. After 4 people left the study following the screen visit, 16 subjects (14 women, 2 men; 9 high-dose, 7 low-dose) met the criteria for intention-to-treat (ITT) analysis by completing at least 1 study visit after starting medication.

As assessed with the questionnaires, there was a significant improvement in sexual function of ITT subjects for ASEX (P=0.004) and MGH-SFQ (P=0.016) scores and libido for ASEX (P=0.028) but not for MGH-SFQ (P=0.058) (both doses pooled) compared with baseline. In the ITT high-dose group there was a significant increase in the number of sexual attempts (P=0.048) and enjoyable experiences (P=0.019) compared with baseline. Neither group had a significant increase in the number of orgasms. There was no significant change in anxiety scores or in the HAM-D scores after treatment in ITT subjects for the low-dose group, but the reduction in HAM-D with the high dose was significant (P=0.047). Maca was well-tolerated overall. Eleven of 16 patients reported at least 1 adverse event which included several incidences of GI upset (n=5), headache (n=2), and irritability (n=2), and single events of panic attack, urinary frequency, blurry vision, sleep disruption, increased sweating, increased dreaming, thicker menstrual discharge, and fibromyalgia exacerbation. The events were transient, none led to discontinuation, and a direct relationship with maca use could not be established. One patient discontinued the study because of the "displeasing smell of maca."

The authors conclude that maca may alleviate SSRI-induced sexual dysfunction, and the effect may be dose-dependent. However, they did not appear to have evaluated the SSRI-only group separately. The authors claim that it was easier to enroll participants than they originally believed. With this in mind, it is a shame that they did not continue enrollment to include a larger sample size and a placebo control group. Also, it would be better to have a study without a mixed population (men and women) because sexual function and dysfunction are very different in men and women. Otherwise, the authors took care in developing and implementing this study so that it would have a rigorous design (other than the large variation in medications being used). Unfortunately, the small sample size, mixed population, heterogeneous treatments, and lack of control group limits the value of the results.

—Heather S. Oliff, PhD

References

[1]Gonzales GF, Cordova A, Vega K, et al. Effects of *Lepidium meyenii* (MACA) on sexual desire and its absent relationship with serum testosterone levels in adult healthy men. *Andrologia*. 2002;34(6):367-372.

[2] Brooks NA, Wilcox G, Walker KZ, et al. Beneficial effects of *Lepidium meyenii* (Maca) on psychological symptoms and measures of sexual dysfunction in postmenopausal women are not related to estrogen or androgen content. *Menopause*. 2008;15(6):1157-1162.

The American Botanical Council has chosen not to include the original article.