Improvement of Escitalopram-Induced Sweating With Citalopram

To the Editor: Antidepressant-induced excessive sweating (ADIES) is an iatrogenic hyperhidrosis that can affect up to 22% of patients taking antidepressants.[1] Adverse effects contribute significantly toward medication nonadherence, thus mitigating side effects may promote adherence and improve positive outcomes. We report a case of ADIES associated with use of escitalopram that improved with a switch to citalopram.

Case report. A 32-year-old man presented with major depressive disorder and panic disorder (*DSM-5* criteria) and a history of sleep apnea. He was currently treated with escitalopram. He reported a partial improvement of mood with escitalopram 10 mg/d but experienced significant sweating throughout the day during cold weather months. He reported similar problems during previous trials of sertraline and bupropion. Because of the cost of escitalopram, he was switched to citalopram. As he had experienced only a partial improvement on escitalopram 10 mg/d (equivalent dose is citalopram 20 mg/d), he was started on citalopram 30 mg/d. He experienced a resolution of his anxiety and depressive symptoms, and his antidepressant-related sweating completely resolved.

The mechanism of ADIES due to selective serotonin reuptake inhibitor usage is thought to be related to the medication effect on serotonin receptors in the hypothalamic nuclei associated with thermoregulation.[2] However, the exact mechanism is complex and not completely clear.[3] Diaphoresis is a dose-dependent side effect observed in 3% to 8% of patients taking escitalopram[4] and 11% of patients taking citalopram.[5] ADIES is commonly treated with anticholinergics, α_1-blockers, α_2-agonists, β-blockers, and antihistamines[1,6]; however, any of these agents can inadvertently add to side effect burden. The patient in this report experienced an improvement of ADIES with switch to citalopram from escitalopram and even tolerated a higher equivalent dose.

Our literature review revealed no previous reports of resolution of ADIES when switching from escitalopram to citalopram. Citalopram has 2 enantiomers, *S*-citalopram and *R*-citalopram, in a 1:1 ratio, while escitalopram is comprised only of the *S*-citalopram enantiomer. *S*-citalopram is the active ingredient associated with improvement of depressive symptoms. *R*-citalopram may have an antagonism of *S*-citalopram action, and this may have played a role in improving antidepressant-related hyperhidrosis in our case.[7] While *S*-citalopram has some antihistamine stimulation, *R*-citalopram has greater antihistamine stimulation, which could have resulted in a reduction of sweating.[8] Our case suggests that there might be utility in a switch to citalopram in patients with escitalopram-related ADIES; however, additional reports and controlled studies are needed. Citalopram carries a US Food and Drug Administration[9] warning on QTc prolongation, so vigilance is required with regard to this dose-related effect.

References

1. Marcy TR, Britton ML. Antidepressant-induced sweating. *Ann Pharmacother*. 2005;39(4):748–752.
2. Cheshire WP, Fealey RD. Drug-induced hyperhidrosis and hypohidrosis: incidence, prevention and management. *Drug Saf*. 2008;31(2):109–126.
3. Kockler DR, McCarthy MW. Antidepressants as a treatment for hot flashes in women. *Am J Health Syst Pharm*. 2004;61(3):287–292.
4. Lexapro (escitalopram) [package insert]. St. Louis, MO: Forest Laboratories; 2014.
5. Celexa tablets (citalopram) [package insert]. St. Louis, MO: Forest Laboratories; 2014.
6. Mago R, Thase ME, Rovner BW. Antidepressant-induced excessive sweating: clinical features and treatment with terazosin. *Ann Clin Psychiatry*. 2013;25(3):186–192.
7. Sánchez C, Bøgesø KP, Ebert B, et al. Escitalopram versus citalopram: the surprising role of the R-enantiomer. *Psychopharmacology (Berl)*. 2004;174(2):163–176.
8. Roseboom P, Kalin N. Citalopram and S-citalopram. In: Schatzberg A, ed. *The American Psychiatric Publishing Textbook of Psychopharmacology*, 4th ed. Arlington, VA: American Psychiatric Publishing Inc; 2009.
9. US Food and Drug Administration. FDA drug safety communication: revised recommendations for Celexa (citalopram hydrobromide) related to a potential risk of abnormal heart rhythms with high doses. https://www.fda.gov/Drugs/DrugSafety/ucm297391.htm. Accessed March 9, 2017.

Venkata Kolli, MBBS, MRCPsych[a]
kollivb@google-mail.com
Chris T. Rainville, MD[b]

[a]Department of Psychiatry, Creighton University, Omaha, Nebraska
[b]Adult Psychiatry Residency, Creighton University, Omaha, Nebraska

Potential conflicts of interest: None.
Funding/support: None.
Published online: April 20, 2017.
Patient consent: Consent was obtained from the patient to publish this case report.
Prim Care Companion CNS Disord 2017;19(2):16l02018
https://doi.org/10.4088/PCC.16l02018