## Letter to the Editor

## Venlafaxine for the Treatment of Hormonal Therapy–Induced Hot Flashes in a Male Patient

To the Editor: Hot flashes are a common problem encountered in men treated with luteinizing hormone releasing hormone agonist therapy (LHRH agonist therapy) in prostate cancer. The prevalence of hot flashes in such men is 50%–80%.<sup>1,2</sup> It has been reported to continue for a few months to as long as 5-8 years even after discontinuation of hormones.<sup>2</sup> Various hormonal and nonhormonal treatment options have been tried for management of hot flashes for men with prostate cancer on LHRH agonist therapy.<sup>3</sup> In a recent randomized controlled trial, venlafaxine has been found to be both efficacious and well tolerated in management of hot flashes in such patients.<sup>4</sup> Venlafaxine, even at a low dose of 25 mg, has been found to have a response rate of 63% in the treatment of hot flashes in patients with prostate cancer who were treated with LHRH agonist therapy.<sup>5</sup> Here, we present a case of LHRH agonist therapy-induced hot flashes in a prostate cancer patient who was successfully treated with venlafaxine.

*Case report.* Mr A, a 71-year-old white man, was diagnosed in 2005 with adenocarcinoma of the prostate, currently in Gleason 4 + 3, T2b. His past medical history is significant for recurrent coronary artery disease, with angioplasty and stent placement; follicular carcinoma of the thyroid with complete thyroidectomy on suppressive doses of levothyroxine; gastroesophageal reflux disease;  $B_{12}$  deficiency status post cholecystectomy; cataract surgery in both eyes; axial skeleton compression fracture at T8 and then L1; and correction of hypovitaminosis D. His family history is significant for colon cancer in his father and breast cancer in his mother. There is no history of psychiatric illness in the family.

His medications at the time of this report were metoprolol-XL 25 mg twice a day, nitroglycerin 0.4 mg sublingual prn; levothyroxine 175  $\mu$ g/d; tamsulosin hydrochloride 0.4 mg once a day; vitamin B<sub>12</sub> 500  $\mu$ g/d; calcium and vitamin D 600 mg/400 units twice per day, pantoprazole sodium 40 mg/d, venlafaxine extended-release 37.5 once a day for hot flashes, and aspirin 325 mg/d. The patient has no known allergies.

His prostate carcinoma was first treated with cryosurgery, then with biochemical breakthrough followed by intensitymodulated radiation therapy, brachytherapy, and 2 years of LHRH agonist therapy from July 2007 until August 2009. While on hormonal therapy, the patient started having hot flashes. These were severe to very severe in intensity with a frequency of 8–10 times a day. He described these as distressing and bothersome. He stated that he felt "miserably hot." On several occasions he experienced flushing of the face and drenching night sweats. His sleep was disrupted due to the hot flashes, and he reported an irritable mood during that time. However, he denied depressed mood, changes in his concentration or energy, or any feelings of hopelessness or worthlessness. His activities of daily living were not affected significantly. He continued to have these symptoms even after the hormonal therapy was discontinued. He was started on venlafaxine 37.5 mg once a day for his hot flashes in September 2009.

Seven months after the initiation of venlafaxine, the patient reported remarkable improvement in his symptoms of hot flashes. He had started to notice an improvement in symptoms of hot flashes within the first month of the initiation of venlafaxine. He now has only 2–3 episodes of hot flashes per day, and there is more than a 60% reduction in his hot flashes, including reduction in both frequency and intensity of the symptoms from very severe to mild.<sup>6</sup> He states that his mood has also improved over this time. His sleep has improved, and he now sleeps uninterrupted and reports feeling better and rested when he wakes up. He denies any significant side effects with venlafaxine and has tolerated it well.

The case highlights that venlafaxine is a safe and efficacious choice for the management of hot flashes in men treated with LHRH agonist therapy for prostate cancer. Even with multiple comorbidities, our patient tolerated venlafaxine quite well and showed a remarkable improvement in his symptoms. Although further studies are needed to corroborate these findings, given the efficacy and the safety profile of venlafaxine, it could be considered as one of the choices for treatment of hot flashes and the associated symptoms in this patient population.

## REFERENCES

- Schow DA, Renfer LG, Rozanski TA, et al. Prevalence of hot flushes during and after neoadjuvant hormonal therapy for localized prostate cancer. *South Med J.* 1998;91(9):855–857.
- Karling P, Hammar M, Varenhorst E. Prevalence and duration of hot flushes after surgical or medical castration in men with prostatic carcinoma. J Urol. 1994;152(4):1170–1173.
- 3. Alekshun TJ, Patterson SG. Management of hot flashes in men with prostate cancer being treated with androgen deprivation therapy. *Support Cancer Ther.* 2006;4(1):30–37.
- 4. Irani J, Salomon L, Oba R, et al. Efficacy of venlafaxine, medroxyprogesterone acetate, and cyproterone acetate for the treatment of vasomotor hot flushes in men taking gonadotropinreleasing hormone analogues for prostate cancer: a double-blind, randomised trial. *Lancet Oncol.* 2010;11(2):147–154.
- Quella SK, Loprinzi CL, Sloan J, et al. Pilot evaluation of venlafaxine for the treatment of hot flashes in men undergoing androgen ablation therapy for prostate cancer. *J Urol.* 1999;162(1):98–102.
- Sloan JA, Loprinzi CL, Novotny PJ, et al. Methodologic lessons learned from hot flash studies. J Clin Oncol. 2001;19(23):4280–4290.

## Harmit Singh, MD hsingh@unmc.edu Ashish Sharma, MD

Author affiliations: Creighton-Nebraska Psychiatry Residency Program, Nebraska Medical Center (Dr Singh); and Department of Psychiatry, University of Nebraska Medical Center (Dr Sharma), Omaha.

Potential conflicts of interest: None reported. Funding/support: None reported.

*Published online:* April 7, 2011 (doi:10.4088/PCC.10l01039blu).

Prim Care Companion CNS Disord 2011;13(2):e1 © Copyright 2011 Physicians Postgraduate Press, Inc.