Hot flashes, a sudden feeling of warmth often followed by sweating and sometimes associated with facial flushing, nausea, anxiety, or irritability, are frequently a side effect of treatment with hormone ablation therapy or orchietomy in patients undergoing treatment for prostate cancer (Higano, 2006). Hot flashes occur in about two-thirds of men treated with testosterone reduction (Baum, 2003).

The pathophysiology of hot flashes is complicated and not fully understood. Although research in women and hot flashes has received much attention, very little has been studied in the male population. It is thought that thermoregulatory centers in the hypothalamus control the vasomotor symptoms involved with hot flashes and that these are regulated by neurotransmitters, including norepinephrine, estrogen, testosterone, serotonin, and endorphins. Changes in levels of the neurotransmitters and hormones, including testosterone, can cause dysregulation of the thermoregulatory centers (Thompson, Tait, Shanafelt, & Loprinzi, 2003). For those men unable to tolerate hot flashes, researchers have validated that low-dose megestrol acetate (Megace®) 20 mg every day or twice daily is well tolerated and can substantially decrease the frequency of hot flashes in men (Loprinzi et al., 1994; Quella et al., 1998). Megestrol acetate for treatment of hot flashes in men and women is considered an off-label use.

**Clinical Indications**

Megestrol acetate 625 to 800 mg/day in the suspension form is indicated for the treatment of anorexia, cachexia, or unexplained weight loss in patients with acquired immunodeficiency syndrome or cancer.

Megestrol acetate 40 mg/day in the tablet form is indicated for the palliation of advanced carcinoma of the breast or endometrium, and as an adjunct to surgery or radiation.

Megestrol acetate is not FDA approved for the treatment of hot flashes in men; however, it is frequently discussed as a method of treatment in the literature (Higano, 2006; Moyad, 2002; Thompson et al., 2003) and is considered an off-label use.

**Contraindications**

Megestrol acetate is contraindicated in men with a history of hypersensitivity to megestrol acetate, thrombophlebitis, thromboembolic disorders, cerebral hemorrhage, or history of hepatic disease.

There are no significant drug interactions (PDR, 2007).

Megestrol acetate should be used with caution in patients with history of epilepsy, migraine, asthma, cardiac, or renal dysfunction.

**Adverse Reactions**

The study by Quella et al. (1998) found no side effects with use of 40 mg of megestrol acetate per day after 3 years in men being treated for hot flashes related to treatment for prostate cancer.

**Dosage and Administration**

The dosage for use in males for treatment of hot flashes has not been proven. Anecdotal discussions have suggested a range of 5 to 20 mg twice a day with a maximum dose of 40 mg four times a day (Higano, 2006). However, researchers (Loprinzi et al., 1994; Quella et al., 1998) who evaluated the use of megestrol acetate in men and women for prevention of hot flashes used 20 mg twice daily orally.

Michelle J. Lajiness, MS, RN, APRN, BC, is a Nurse Practitioner, William Beaumont Hospital, Royal Oak, MI.
Cost of treatment ranges from $132 for generic tablets to $156 for Megace as 40 mg tablets for 30 days. Oral suspensions for 40 mg range from $360 to $400 for 30 days.

Nursing Considerations

Patients should be taught to take the medication either once daily or twice daily spaced 12 hours apart. If a dosage is missed, instruct the patient to skip the missed dose and to take the medication at the next scheduled time. Patients should be taught to avoid stimuli that can induce hot flashes, such as stress, changes in room or food temperatures, caffeine, spicy foods, and alcohol.

Conclusion

Although the indications for megestrol acetate do not include treatment of vasomotor hot flashes, studies have proven that it is both effective and safe as an off-label use.

References


Additional Reading