



A Beach in San Francisco, CA

## PIC QUESTION OF THE WEEK: 8/23/10

Q: Is finasteride a treatment option for hair loss in women?

A: *Female pattern* hair loss (FPHL), sometimes referred to as female androgenetic alopecia, is the most common, but just one of several types of hair loss in women. It occurs in approximately 6% of women less than 50 years of age and nearly 40% of those greater than 70 years. Hair loss is more extensive in the central portion of the scalp in FPHL while the frontal hairline is more commonly affected in *male pattern* hair loss (MPHL). It must be noted that FPHL is not always associated with excess androgen and can be related to other conditions such as hypothyroidism, nutritional deficiencies, systemic connective tissue disorders, etc. The underlying causes of FPHL are thought to be similar to those associated with MPHL. Finasteride (Proscar; Propecia, etc.) is labeled for the treatment of benign prostatic hyperplasia (5 mg daily) and MPHL (1 mg daily). It has been used off-label for the prevention of prostate cancer and hirsutism in women. The drug is contraindicated in pregnancy and should be avoided in women of childbearing age due to the increased risk of genitourinary abnormalities in male infants. Current product labeling describes a specific study in which low doses (1 mg) of the drug were ineffective in treating FPHL. There have, however, been a small number of clinical trials in which finasteride (2.5 – 5 mg daily) was beneficial in stimulating hair growth in women with FPHL. Although the exact mechanism has not been established, finasteride probably enhances hair growth by reducing levels of testosterone and dihydrotestosterone. There have been two relatively large trials of finasteride in women. In one, 37 premenopausal women received finasteride doses of 2.5 mg daily (plus an oral contraceptive) for twelve months. Improvement was noted in approximately 78% and stabilization in a further 22% of trial participants. In another study, 48 premenopausal women (also receiving an oral contraceptive) were administered 5 mg of the drug daily for a one year period. No significant improvement was observed in this group of patients. There have been limited adverse effects during clinical trials in women treated with finasteride; however, decreased libido, dry skin, and slight acne occasionally were reported. Finasteride has been prescribed in both pre- and post-menopausal women. Some authors suggest that finasteride be reserved for patients who have responded poorly to at least a yearly trial of minoxidil. Non-pharmacologic options for patients experiencing hair loss include hair transplantation, use of a wig, hair extensions, and different hairstyling techniques. In summary, although response has been variable, finasteride may be of benefit in some women with FPHL.

### References

- Stout SM, Stumpf JL. Finasteride treatment of hair loss in women. *Ann Pharmacother* 2010; 44:1090-7.
- Iorizzo M, Vincenzi C, Voudouris S, et al. Finasteride treatment of female pattern hair loss. *Arch Dermatol* 2006;142: 298-302.
- Olsen E, Messenger A, Shapiro J, et al. Evaluation and treatment of male and female pattern hair loss. *J Am Acad Dermatol* 2005;52:301-11.

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