

Propecia: The Goose That Lays the Golden Eggs

Ronni Wolf, MD;¹ Jennifer L. Parish, MD;² Lawrence Charles Parish, MD²

Few medications can compete with the meteoric success of finasteride (Propecia; Merck & Co., Inc., Whitehouse Station, NJ), the first, and until now the only, oral prescription drug for treating male pattern hair loss. Sales skyrocketed to \$65 million for the second quarter of 2004 alone. The enormous impact of this drug has stemmed from: 1) the continuing demand to correct male pattern hair loss for which we previously have had limited success^{1,2}; 2) its relatively low incidence of side effects and risks; and 3) possibly the very aggressive and sometimes not too even-handed advertising campaigns of the distributors in various countries.³

In July 2003, a study on "The influence of finasteride on the development of prostate cancer"^{4,5} appeared in the *New England Journal of Medicine* along with an accompanying editorial. The study sent the proverbial shock waves through the medical community by reporting that finasteride increased the risk of high-grade prostate cancer. This news is alarming and particularly relevant to dermatologists, the main prescribers of this drug.

Study in Brief

A total of 18,882 men, aged 55 years, who had normal digital rectal examinations and prostate-specific antigen levels (≤ 3.0 ng/mm) were randomly treated with finasteride (5 mg/d) or placebo for 7 years. The results showed a lower cumulative rate of detection of cancer in the finasteride group (18.4%) compared to the placebo group (24.4%). An unexpected finding of this trial was the increase in the rate of high-grade cancers in the finasteride group. Overall,

about 5.1% of men in the placebo group and about 6.4% of those in the finasteride group had a cancer with a Gleason score of 7, 8, 9, or 10—an increase of 1.3%. The Gleason scoring system is the accepted standard for the grading of prostate cancer, and cancers with a Gleason score of 7–10 are known to behave aggressively.⁴ In other words, while finasteride (5 mg/d) reduced the cumulative incidence of low-grade cancers (most of which have little clinical significance), it accelerated the growth of high-grade cancers, which may pose a threat to life and health, if not treated successfully.

The conclusions emphasized in the editorial⁵ were: "finasteride does not seem to be an attractive agent for the chemoprevention of prostate cancer;" however, it should not be denied or withdrawn from men taking it for relief of urinary symptoms, "as long as such men are monitored carefully for the development of cancer by periodic digital rectal examinations and measurement of serum prostate specific antigen levels corrected for the effect of finasteride."

Side Effects

Until recently, most dermatologists were confident in discussing the main detriment to oral finasteride as the possible loss of libido.⁶ Although the agent may be considered the best available for treating male pattern baldness,⁷ many patients have become disillusioned with a long-term daily regimen, cost, and less than dramatic results.⁸ There are now reports that suggest an association between finasteride, even at a daily dosage of 1 mg, and cataracts⁹ and gynecomastia.¹⁰ In all fairness,

From the Dermatology Unit, Kaplan Medical Center, Rehovot, Israel;¹ the Department of Dermatology and Cutaneous Biology and the Jefferson Center for International Dermatology, Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA²

Address for correspondence: Ronni Wolf, MD, Dermatology Unit, Kaplan Medical Center, 76100 Rehovot, Israel
E-mail: wolf_r@netvision.net.il



www.lejacq.com
ID: 3978

a review of the two papers raises questions of coincidence rather than causality.

Where Do We Go From Here?

This brings us to the data of the presented article that are too compelling (several limitations and problems notwithstanding) to be ignored.⁴ The bottom line, regardless, is an increased risk of high-grade prostate cancer associated with finasteride (5 mg daily!) that must be weighed against the beneficial effects of the drug. The dermatologic agent is 1 mg, but it is unknown how to extrapolate the data for the lower dose.

It might be reasonable to risk prescribing finasteride in a disease such as benign prostatic hyperplasia, carrying as it does the risk of acute urinary retention, the increased incidence of

urinary tract infection, and the need for trans-urethral resection of the prostate. There is a questionable rationale for prescribing it for the benign esthetic affliction of baldness.

Conclusions

Those of us who continue to prescribe finasteride for androgenetic alopecia will now have to include this new data in our discussion with patients. We need to explain the potential risks of long-term use of finasteride (1 mg) and monitor the use appropriately. This possibly entails referring these men for routine urologic evaluation and checking their prostate specific antigen levels before and during treatment. Our enthusiasm for endorsing an agent that can lessen male pattern alopecia needs to be rebalanced with its potential side effects.

REFERENCES

- 1 Cash TF, Price VH, Savin RC. Psychological effects of androgenetic alopecia on women: comparisons with balding men and with female control subjects. *J Am Acad Dermatol.* 1993;29:568-575.
- 2 Budd D, Himmelberger D, Rhodes T, et al. The effects of hair loss in European men: a survey in four countries. *Eur J Dermatol.* 2000;10:122-127.
- 3 Wolf R, Wolf D. Some "twins fight hair loss"—others fight unbalanced and inappropriate advertising campaigns. *Dermanities.* 2003;3:a5.
- 4 Thompson IM, Goodman PJ, Tangen CM, et al. The influence of finasteride on the development of prostate cancer. *N Engl J Med.* 2003;349:215-224.
- 5 Scardino PT. The prevention of prostate cancer—the dilemma continues. *N Engl J Med.* 2003;349:297-299.
- 6 Whiting DA, Olsen EA, Savin R, et al. Efficacy and tolerability of finasteride 1 mg in men aged 41 to 60 years with male pattern hair loss. *Eur J Dermatol.* 2003;13:150-160.
- 7 Arca E, Acikgoz G, Tastan HB, et al. An open, randomized, comparative study of oral finasteride and 5% topical minoxidil in male androgenetic alopecia. *Dermatology.* 2004;209:117-125.
- 8 Rapaport MJ. Follow-up of 1 mg finasteride treatment of male pattern baldness—difference between clinical trials and private office follow-up: influences on prescribing habits evaluated. *Dermatol Surg.* 2004;30:761-763.
- 9 Chou SY, Kao SC, Hsu WM. Propecia-associated bilateral cataract. *Clin Experiment Ophthalmol.* 2004;32:106-108.
- 10 Schmutz JL, Barbaud A, Trechot P. Finasteride (Propecia) and gynecomastia: 4 new cases [in French]. *Ann Dermatol Venerol.* 2004;131:615.