

Finasteride-induced gynecomastia

Sir,

Finasteride has successfully been used for treatment of male androgenetic alopecia.^[1] Gynecomastia is a rare adverse effect of this drug, which has been reported by some authors, especially at the dose of 5 mg/d;^[2] few authors have also reported of this complication with 1 mg/d finasteride.^[1] We also observed the same adverse effect in two patients receiving orally 1 mg/d finasteride.

Case 1: A 19- year-old man affected by male pattern hair loss (MPHL) received finasteride, 1 mg/d for 8 months. Seven months later, he presented with a painful enlargement of his left breast, with no evident nodules at palpation. On sonography, there was diffuse increase in breast tissue, without any abnormal mass or parenchymal distortion [Figure 1]. Axillary lymph nodes were normal. Laboratory evaluations including testosterone, free testosterone, luteinizing hormone, dehydroepiandrosterone, and prolactin were within normal range. Dihydrotestosterone level was 135 $\mu\text{g/}$

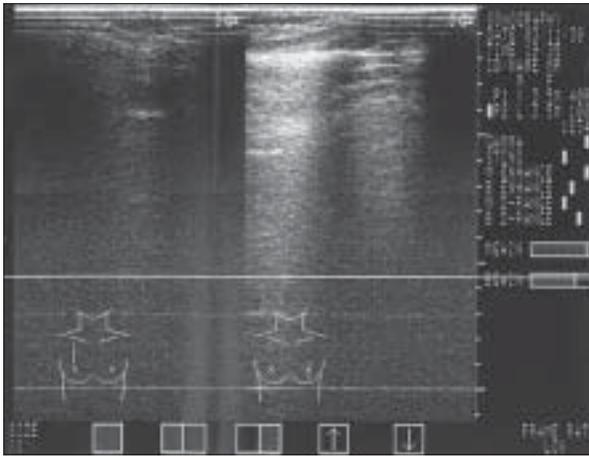


Figure 1: Breast sonography of the patient who received 1 mg/day finasteride

100 mL (normal, 133-441). Follicle-stimulating hormone was 1.1 IU/L (normal, 1.4-10.5). 17-hydroxyprogesterone level was elevated at 3.63 ng/mL (normal, 0.5-2.4). The result of semen analysis was normal. Liver function and thyroid function studies were normal. Any other causes of gynecomastia, including other drug-induced gynecomastia and breast cancer, were ruled out in this patient by endocrine consultation. Treatment was stopped, and 4 months later gynecomastia completely disappeared and laboratory tests returned to normal levels. Two months later, the patient was restarted on the finasteride regimen, 1 mg every alternate day, with no relapse of gynecomastia.

Case 2: A 43-year-old man with male pattern hair loss (MPHL) presented with unilateral painful mammary enlargement that had developed 20 days after starting finasteride 1 mg/d. He presented with a gynecomastia of the right breast [Figure 2], with no evident nodules at palpation. He also noticed a decrease in libido during treatment with finasteride. There was a history of opium use since 20 years, but he had stopped it 6 months before starting the finasteride regimen. Results of hormone studies were normal. He refused to undergo sonography or mammography. Treatment was stopped, and 3 months later the pain decreased, but after 7 months he still had the right breast enlargement.

Reduction in serum dihydrotestosterone is a theoretical cause of gynecomastia induced by finasteride.^[3] Ferrando *et al.*, reported four cases of gynecomastia induced by 1 mg/d finasteride. All cases had unilateral gynecomastia and the symptoms disappeared after discontinuation of therapy.^[1] Some authors have reported the occurrence of gynecomastia with the use



Figure 2: Breast enlargement of the patient who received 1 mg/day finasteride

of finasteride for benign prostatic hypertrophy.^[2,4,5] A similar case of unilateral painful gynecomastia by using 1 mg/day finasteride has been reported by Wade and Sinclair.^[3] Our both patients also presented with a unilateral painful gynecomastia, which showed complete resolution in one and partial resolution in the other after cessation of therapy, but Miller *et al.*, reported recurrent gynecomastia, with finasteride in treating benign prostatic hyperplasia.^[5] Continued surveillance and close follow-up of cases on long-term treatments with finasteride are needed for better knowledge of real incidence of gynecomastia.

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