

Editorial

*Corresponding author

Ege Can Serefoglu, MD, FECSM

Department of Urology

Bagcilar Training and Research Hospital

Istanbul, Turkey

E-mail: egecanserefoglu@hotmail.com

Volume 1 : Issue 1

Article Ref. #: 1000UAOJ1e002

Article History

Received: September 12th, 2016

Accepted: September 12th, 2016

Published: September 15th, 2016

Citation

Cakir OO, Serefoglu EC. Post-Finasteride Syndrome: An underestimated phenomenon. *Urol Androl Open J*. 2016; 1(1): e3-e4. doi: [10.17140/UAOJ-1-e002](https://doi.org/10.17140/UAOJ-1-e002)

Copyright

©2016 Serefoglu EC. This is an open access article distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Post-Finasteride Syndrome: An Underestimated Phenomenon

Omer Onur Cakir, MD; Ege Can Serefoglu, MD, FECSM*

Department of Urology, Bagcilar Training and Research Hospital, Istanbul, Turkey

With their increased popularity in the treatment of benign prostate hyperplasia (BPH), physicians are encountering with the side effects of 5 alpha reductase inhibitors (5ARIs) (finasteride and dutasteride) more often. Although reports regarding the persistence of these problems raise the concerns of physicians and BPH patients alike,^{1,2} annual 5ARI sales continue to increase, generating approximately half billion dollars in the United States, according to Information Management System (IMS) data.³ The United States Food and Drug Administration (FDA) approval of finasteride for androgenic alopecia (AGA) contributes to the 5ARI market and broaden the population who may suffer from side effects by decreasing the age span.⁴

Although the exact mechanism of the side effects of 5ARIs are not completely elucidated yet, the inhibition of testosterone (T) conversion to its active metabolite dihydrotestosterone (DHT) may play a role. Consequent alterations in penile nitric oxide (NO) metabolism may be responsible for erectile dysfunction (ED) whereas alterations in the neurotransmitters in the central nervous system may cause ejaculatory dysfunction and decreased libido. These sexual side effects seem to be more frequent in higher doses and in the beginning of the 5ARI therapy.^{5,6} Although sexual problems induced by 5ARIs diminish after the second year of the therapy in the majority of cases, some persist during the treatment or even after treatment cessation.⁷

When the side effects of 5ARI persist even three months after cessation of the drug and are accompanied by other physical, mental and neurological adverse effects, this clinical entity is named post-finasteride syndrome (PFS).⁸ Although, the prevalence of the PFS is not exactly determined, the number of men reporting these persistent sexual side effects to health professionals is increasing worldwide. The symptomatology of PFS is quite variable and the symptoms may range from minor to severe. In addition to the aforementioned sexual side effects, the PFS patients may report psychological issues such as emotional sensitivity, attention deficiency depression, panic attacks and anxiety leading to functional decline and even suicidal ideation. Other physical symptoms of PFS include muscle atrophy, dry and thin skin, chronic fatigue, tinnitus, gynecomastia, scrotal and penile shrinkage and the Peyronie's disease

Today, there is no known cure or any effective treatments of PFS; however, medical communities and societies are recently beginning to realize the scope and burden of this problem.⁴ Until the actual pathophysiology of PFS is determined and effective therapies are discovered, we all have to think twice before prescribing a 5ARIs for our patients with either BPH and/or AGA. Meanwhile, professional organizations may provide educational materials for physicians in order to increase their awareness regarding the scope of these persistent catastrophic adverse effects of finasteride and dutasteride. Considering the thousands of sufferers who already have PFS, the scientific world immediately need to conduct more research to determine how to effectively treat this horrible symptom complex.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

REFERENCES

1. Irwig MS, Kolukula S. Persistent sexual side effects of finasteride for male pattern hair loss. *J Sex Med.* 2011; 8(6): 1747-1753.
2. Traish AM, Hassani J, Guay AT, Zitzmann M, Hansen ML. Adverse side effects of 5 alpha-reductase inhibitors therapy: Persistent diminished libido and erectile dysfunction and depression in a subset of patients. *J Sex Med.* 2011; 8(3): 872-884. doi: [10.1111/j.1743-6109.2010.02157.x](https://doi.org/10.1111/j.1743-6109.2010.02157.x)
3. Cassels A, Wright JM, Mintzes B, Jauca C. Direct-to-consumer advertising. Finasteride for male pattern hair loss. *Can Fam Physician.* 2001; 47: 1751-1755. Web site. <http://www.cfp.ca/content/47/9/1751.long>. Accessed September 10, 2016
4. Post-Finasteride Syndrome: Overview. Post-Finasteride Syndrome Foundation Somerset, New Jersey 2016. Web site. <http://www.pfsfoundation.org/post-finasteride-syndrome-overview/>. Accessed September 10, 2016
5. Stoner E. Three-year safety and efficacy data on the use of finasteride in the treatment of benign prostatic hyperplasia. *Urology.* 1994; 43(3): 284-294. doi: [10.1016/0090-4295\(94\)90068-X](https://doi.org/10.1016/0090-4295(94)90068-X)
6. I Motofei DR, Georgescu SR, Tampa M, et al. The post-finasteride syndrome after distinct doses/ affections. *J Invest Dermatol.* 2015; 135: S40. Web site. http://scholar.valpo.edu/psych_fac_pub/22/. Accessed September 10, 2016
7. Wessells H, Roy J, Bannow J, et al. Incidence and severity of sexual adverse experiences in finasteride and placebo-treated men with benign prostatic hyperplasia. *Urology.* 2003; 61(3): 579-584. doi: [10.1016/S0090-4295\(02\)02401-9](https://doi.org/10.1016/S0090-4295(02)02401-9)
8. Ganzer CA, Jacobs AR, Iqbal F. Persistent sexual, emotional, and cognitive impairment post-finasteride: A survey of men reporting symptoms. *Am J Mens Health.* 2015; 9(3): 222-228. doi: [10.1177/1557988314538445](https://doi.org/10.1177/1557988314538445)