Prostate Cancer Prevention with finasteride/Proscar or dutasteride/Avodart?

Compiled by Charles (Chuck) Maack – Prostate Cancer Advocate/Activist

Disclaimer: Please recognize that I am not a Medical Doctor. I have been an avid student researching and studying prostate cancer as a survivor and continuing patient since 1992. I have dedicated my retirement years to continued research and study in order to serve as an advocate for prostate cancer awareness, and, from a activist patient’s viewpoint, to help patients, caregivers, and others interested develop an understanding of prostate cancer, its treatment options, and the treatment of the side effects that often accompany treatment. Readers of this paper must understand that the comments or recommendations I make are not intended to be the procedure to blindly follow; rather, they are to be reviewed as my opinion, then used for further personal research, study, and subsequent discussion with the medical professional/physician providing prostate cancer care.

The following report regarding whether or not to take finasteride/Proscar or dutasteride/Avodart to prevent prostate cancer comes from Johns Hopkins Health Alerts emailed to subscribers on 2/18/10. What appears most important is that with an intact prostate gland, PSA blood serum levels must be at least doubled to consider the person’s actual PSA level. And, in any case, should the PSA level noted in a laboratory report reflect an increase from a previous test report, the amount of increase should be of concern; not just the PSA level noted, but more so the PSA velocity is of key importance. Please be sure to read my personal comments following the below report.

A Report from Johns Hopkins Health Alerts

Prostate Disorders Special Report

Should You Take Proscar to Prevent Prostate Cancer?

In the quest to find a way to prevent prostate cancer, finasteride (Proscar) was once a rising star -- until evidence showed a potential link between it and high-grade prostate cancer. Now research suggests that this and other concerns are unfounded. But not everyone is convinced. Two Hopkins specialists weigh in on the
The debate began in 2003 with the publication of the *Prostate Cancer Prevention Trial* (PCPT). In this randomized clinical trial, more than 18,000 men age 55 and older took either 5 mg of Proscar or a placebo every day for seven years. The aim of the study was to determine whether Proscar -- which belongs to the class of medications known as 5-alpha-reductase inhibitors and is commonly prescribed to treat benign prostatic hyperplasia (BPH) -- might also reduce a man's chances of developing prostate cancer.

Results of the PCPT did, in fact, show a 25% reduction in prostate cancer among men taking the drug. But there was a serious catch: *Men who developed prostate cancer had an increased likelihood of having higher-grade, more aggressive cancers (Gleason scores of 7 to 10).* This finding dampened enthusiasm for using Proscar as a preventive agent against prostate cancer.

**New Studies, Different Interpretations** -- Two new analyses of the PCPT data -- one published in *Urology* and the other in *Cancer Prevention Research* -- were released in May 2008. Each confirms the earlier trial's conclusion that Proscar reduces the risk of prostate cancer. A third analysis published in *Cancer Prevention Research* re-examined the problem of high-grade tumors. Instead of basing the grade of the prostate cancer on tissue samples from biopsies, the researchers looked at prostate tissue removed from men who underwent radical prostatectomy to treat their prostate cancers. When this tissue was graded, the researchers found that finasteride actually reduced the development of these aggressive prostate cancers by 27% compared with placebo.

Based on these findings, some prostate cancer specialists now support the idea of using Proscar for prostate cancer prevention. But two prominent prostate cancer experts
from the Johns Hopkins University School of Medicine -- Patrick C. Walsh, M.D., and H. Ballentine Carter, M.D. -- disagree with these new interpretations.

**Two Hopkins Experts Weigh In** -- Drs. Walsh and Carter point out that the reduction in prostate cancer cases among men taking Proscar may simply reflect the fact that fewer of these men underwent prostate biopsies. In the PCPT, the men had a for-cause biopsy when there was an abnormality on their digital rectal examination (DRE) or when their PSA level rose higher than 4 ng/mL. Men with a normal DRE and PSA level were offered a biopsy at the end of the seven-year study, but many refused.

The reason: Proscar not only shrinks the prostate but also reduces PSA levels by about half. These artificially low PSA levels in Proscar users can lull some men and their doctors into a false sense of security and prevent needed biopsies.

The finding of a 25% reduction in prostate cancer cases was determined from both the for-cause and end-of-study biopsies. In the real world, however, men only undergo biopsies for cause. When the end-of-study biopsies are removed from the analysis, Proscar users had only a 10% reduction in prostate cancer -- a difference that is much smaller than 25% and is not statistically significant.

**The Issue of High-Grade Disease** -- So what do the Hopkins experts think about the high-grade tumor problem? First, if the original finding is correct -- that Proscar use increases the risk of high-grade prostate cancer by 68% -- then the drug could do more harm than good in terms of prostate cancer prevention, because at best, it only reduces the overall risk of getting prostate cancer by 25% and at worst, by a mere 10%.

Second, it can't be said with confidence that Proscar reduces the risk of high-grade prostate cancer, because the results of the reanalysis were based on a small number of
cases; only 500 men in the study had a prostatectomy.

**Our Advice** -- Don't take any 5-alpha-reductase inhibitor in hopes of preventing prostate cancer. In addition to Proscar, drugs in this class include Propecia (a form of finasteride used to prevent baldness) and the BPH drug dutasteride (Avodart). If you do use these drugs for BPH or hair loss, there's no need to stop, but it's necessary to get a biopsy right away if your PSA level increases.

Moreover, because 5-alpha-reductase inhibitors lower PSA levels by about 50%, if you use any of these medications you must multiply your PSA by two for the first two years of use, by 2.3 for the second to seventh year, and by 2.5 if you've used the drug for seven or more years. This is extremely important, because if your PSA is rising, your risk of having cancer is three times as high as that of men who don't have a rising PSA, and you're six times as likely to be diagnosed with high-grade disease.

**MY PERSONAL COMMENTS:**

I have ALWAYS supported the use of a 5Alpha Reductase (5AR) inhibitor when androgen deprivation therapy is prescribed. Finasteride/Proscar is certainly one of those inhibitors, but my personal research and study of dutasteride/Avodart has led me to advocate that inhibitor over finasteride/Proscar. The importance of finasteride (Proscar) is not a "new" revelation recently being reported by supposed recent research and study. The New York Times makes note that Dr. Peter Scardino, chairman of the department of surgery at Memorial Sloan-Kettering Cancer Center, originally thought finasteride was dangerous but now recommends its use. The article has an opening statement "For the first time, leading prostate cancer specialists say, they have a drug that can significantly cut men’s risk of developing the disease, dropping the incidence by 30 percent" [http://tinyurl.com/4gnmlu](http://tinyurl.com/4gnmlu).
When men are considering taking finasteride or dutasteride as a prostate cancer preventative, it is only fair to make known the side effects that might occur. Side effects with either of these drugs may include decreased sex drive, impotence, decreased ejaculate amount, and breast enlargement. While most side effects do not require immediate medical attention, some serious problems should be reported to one’s healthcare provider right away, including breast tenderness; testicular pain; or signs of an allergic reaction, such as unexplained skin rash, wheezing, or hives. It is very important to note, also, that neither of these medications should be handled by pregnant women. More information regarding side effects can be found on the internet.

I am not persistent in recommending the use of either Avodart or Proscar to prevent or delay onset of prostate cancer as long as men take the likelihood of future prostate cancer to heart, particularly when their father was diagnosed with the disease, and get annual PSA and DRE checks WITHOUT FAIL beginning at age 35 when there is a family history of prostate or breast cancer, and for all African American men. All others beginning at age 40. They must not miss even one year having the PSA level checked and the Digital Rectal Exam performed. As long as they do this, any evidence of prostate cancer can more likely be nipped in the bud before it becomes a problem. If they miss a year and the year before shortly after that previous check their cancer began an aggressive development, now missing a year would give that cancer two years to develop before being noticed. And if the cancer is aggressive, it could have already metastasized to bone before being known. So, I wouldn't push taking finasteride or dutasteride as a preventative measure of absolute importance as long as men recognize the importance of annual checks and mark their calendars to make sure they get checked each year.
Important to keep in mind: there are some side effects that accompany these medications that should be considered to weigh whether or not one would want to deal with one or more of those possible side effects:

One effect I suspect many patients are unaware and are not advised, is that men treated with dutasteride or finasteride should not donate blood until at least 6 months have passed following their last dose (IN THIS REGARD, SEE NEXT PARAGRAPH). As noted in the below URL, the purpose of this deferred period is to prevent administration of dutasteride or finasteride to a pregnant female transfusion recipient. I suspect another major concern is the effect either dutasteride or finasteride has on sexual issues. And, of course, another concern is the possibility of breast enlargement. And yet another note of caution is that pregnant women should NOT handle either of these medications. These and other effects should be thoroughly explained to men prior to prescribing either 5AR inhibitor for either “preventative” treatment or as part of androgen deprivation therapy.

In any event, if diagnosed with prostate cancer, one should not only not even consider donating blood, but should advise anyone suggesting donating or arranging a transfusion that you have been diagnosed with prostate cancer.

Side effects from dutasteride/Avodart:
Use caution in prescribing dutasteride/Avodart or finasteride/Proscar to patients with liver disease. The effect of hepatic impairment on dutasteride pharmacokinetics has not been studied. Because dutasteride is extensively metabolized and has a half-life of 3 to 5 weeks, caution should be used in the administration of dutasteride to patients with liver disease. Since finasteride is also extensively metabolized in the liver, the same caution applies.
http://www.gsk.ca/english/docs-
Side effects from finasteride:
http://www.drugs.com/pro/finasteride.html