EDITORIAL

New Developments in Prostate Cancer Screening and Prevention

This year's annual meeting of the American Urological Association (AUA) was marked by a myriad of presentations on long-awaited results from large-scale clinical trials. Plenary sessions and a Late Breaking News session focused on the critical issues of the benefits of early detection of prostate cancer and its prevention. Of special note, the AUA revised its guidelines for PSA screening…

Gerry Andriole presented the results of the Reduction by Dutasteride of Prostate Cancer Events (REDUCE) trial, which looked at whether dutasteride reduces the risk of prostate cancer in men at high risk of this disease. The trial found that indeed, men who took dutasteride over 4 years had a 23% lower incidence of prostate cancer compared to men who received placebo. These results are similar to those observed with finasteride in the Prostate Cancer Prevention Trial (PCPT), but unlike the PCPT, there was no significant increase in high-grade tumors in the 5-alpha-reductase inhibitor arm.

Other studies focused on whether early detection of prostate cancer by PSA testing can save lives. The results were indeed controversial. The American Prostate, Lung, Ovarian, and Colorectal (PLOC) cancer screening trial showed no differences between the screening versus no-screening arms, while the European Randomized Study of Screening for Prostate Cancer (ERSPC) showed a 27% reduction in mortality favoring the screening arm. The studies had different designs, but were both long term trials involving large populations of men. The PLOC cancer screening trial was criticized because there was potential "contamination" in the control group by men who had PSA tests done even though they had been assigned to the control arm. The European study investigators reported that screening results in "over detection" of cancers that are small, well differentiated, and unlikely to be a health hazard to patients--the so-called "clinically insignificant" cancers.

Based on these presentations and their published results, Peter Carroll presented the AUA recommendations for PSA screening. The AUA is currently recommending PSA screening for "well informed men who wish to pursue early diagnosis." The start of the screening program when PSA testing should be done has been dropped form 50 years of age to 40 years. Rather than considering an absolute cut off point for the interpretation of PSA, multiple considerations need to be made, including, very importantly, PSA velocity.

It is increasingly difficult to design and carry out prospective randomized clinical trials to test the benefits of PSA screening on mortality reduction. The utilization of PSA testing to screen for prostate cancer is widely prevalent in Western societies, and it is becoming increasingly common in Asia. It is difficult to find populations who have not been tested, or who would adhere to strict "abstinence" from PSA tests. Increased testing has resulted in stage migration of the detected cancers, with predominantly localized disease found at the time of diagnosis. Thus it may be difficult to demonstrate differences between populations that have had PSA testing and those that have not been tested. In the developing world, PSA testing has not yet penetrated very far, but at the same time, diagnosed patients in those countries may not have curative treatments available. However, do the end results justify the costs of such trials? To convince men--in 2009 and beyond--NOT to have their PSA levels determined, because PSA testing appears to be unproven to increase life expectancy, may be an impossible proposition.

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