

Emerging Treatment Protocols

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I. Chemoprevention

Why consider chemoprevention in prostate cancer, and what is the goal of chemoprevention? We know that almost 200,000 men a year are diagnosed with prostate cancer. We know that none of us can really modify the known risk factors, which are age, race, and family history, and we also know that screening is beneficial though it remains controversial and subject to discussion. Chemoprevention was defined about two decades ago as the use of a pharmacologic agent, something that you ingest or is injected, to prevent or delay the diagnosis of cancer.

II. Trials

1. Prostate Cancer Prevention Trial

There have been three large-scale chemoprevention trials in prostate cancer. The first was the Prostate Cancer Prevention Trial, which was run by Dr. Thompson in the 1990s, and that was reported in 2003. It randomized 18,000 men to placebo versus finasteride and showed a 25% reduction in the risk of being diagnosed with prostate cancer in men who took finasteride.

2. REDUCE

The second, the REDUCE trial, showed the identical effect of this class of drugs, 5-alpha reductase inhibitors. It reduced the likelihood of getting prostate cancer between 20 and 25%. We now have two large-scale trials totalling over 26,000 men that show that this class of drugs is effective in reducing a man's risk of prostate cancer. The discussion now is who is the most appropriate candidate for taking a 5-alpha reductase inhibitor. There may be a time when we have genetic profiling and can decide based on a genetic test who is at high risk for getting prostate cancer. These drugs are already approved for treating urinary symptoms due to non-cancerous prostate enlargement. If you happen to have that and you have other risk factors for developing prostate cancer, then you get double benefit.

3. SELECT

SELECT was a large-scale trial with about 35,000 men looking to see if selenium and/or vitamin E would help prevent prostate cancer. It was a four-arm study, and neither selenium nor vitamin E prevented prostate cancer in that trial. Nor did they prevent lung cancer, nor did they prevent colon cancer, nor did they make it less likely that the individuals who took either of those would die of something else.

III. Prevention: What I Tell Patients

We used to think that a high-fat diet caused prostate cancer, and probably extremely high-fat diets do. It is probably more about caloric intake though than it is about anything else. Appropriate diet and exercise is a good lifestyle choice not only for prostate cancer but for all cancers and heart disease as well. No nutraceutical substances on the market have been proven in clinical trials to be beneficial. 5-alpha reductase inhibitors are the only drugs that have been proven in high-quality, randomized, phase III trials to reduce the risk of prostate cancer.