HGPIN – High Grade Prostatic Intraepithelial Neoplasia

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

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.

All HGPIN (High-Grade Prostatic Intraepithelial Neoplasia) are not equal.

When learning of a patient being scheduled for a biopsy of his prostate gland, recommend he request that if High-Grade Prostatic Intraepithelial Neoplasia (HGPIN) is present that it be tested for the presence of the protein ERG. Testing for this possibility is available at the Cleveland Clinic Pathology Laboratory (see: http://www.clevelandcliniclabs.com/portals/66/PDF/PathResearchWinter2011.pdf as well as it is available as a sendout test to the University of Michigan. Best to request that your physician either check with your health insurer or with the Cleveland Clinic Pathology Laboratory or the University of Michigan to determine if this testing is covered by your health insurer, and particularly Medicare, since Medicare is not in the practice of providing information as to what they will cover and what they will not when it comes to certain testing and imaging. If not covered, then get a determination of total cost in order to have an idea if it is an expense you can afford.

A recent study/trial determined that this presence from biopsy found that 53 percent of men whose prostate biopsies showed expression of ERG protein in their HGPIN developed invasive prostate cancer, compared to 35 percent of men whose biopsies were ERG-negative. All of the biopsies were classified as having HGPIN, which are lesions that may or may not morph into cancer. The prostate cancer-specific ERG protein overproduction results from the fusion of two genes, leading to a chimeric gene referred to as TMPRSS2-ERG that is present in over half of the 230,000 prostate cancers diagnosed in the United States each year. Investigators

found ERG expression in about 11 percent of participants' biopsies, and over time, increasing numbers of these patients developed invasive prostate cancer — about 15 percent within the first year of the three year-trial, 37 percent at year two, and 53 percent at year three.

Please click on the following for a more comprehensive explanation:

http://www.physiciansnews.com/2013/12/04/protein-found-in-biopsies-shows-increased-prostate-cancer-risk/

The findings mean that potentially thousands of men a year — those with ERG-positive HGPIN biopsies — may benefit from increased surveillance and early treatment of prostate cancer, while those whose HGPIN biopsies come back ERG-negative may be able to avoid unnecessary future biopsies, says the study's senior investigator, Dr. Mark Rubin, the Homer T. Hirst Professor of Oncology in Pathology and professor of pathology and laboratory medicine

From another source, the ***14th Annual Meeting of the Society of Urologic Oncology (SUO) "Extraordinary Opportunities for Discovery""***
Christopher Barbieri, MD, PhD, described clinical experience of the combination of both PCA3 and TMPRSS2-ERG (T2-ERG). PCA3 is an FDA-approved test which measures an RNA which can be detected in urine after attentive DRE as it is normalized to the amount of mRNA which codes for PSA. TMPRSS2-ERG is a recurrently identified translocation which is found in 50% of all men with prostate cancer. It is also found in 90% of all prostate tumors if multifocality is taken into account. Both of these tests have a significant incremental gain in predictive power of standard clinical nomograms which include PSA, age, and DRE. Although T2-ERG is not FDA-approved, it is available as a sendout test to the University of Michigan. John Wei, MD, MS, then highlighted several other studies corroborating its improvement in predictive value in this setting.

Again, although T2-ERG is not FDA-approved, it is available as a sendout test to the University of Michigan as well as the Cleveland Clinic Pathology Laboratory.