

PROSTATE CANCER CONFERENCE: MELBOURNE, AUGUST 2008

Summary of the highlights of the Prostate Cancer Symposium that I attended in Melbourne. Three world-renowned Urologists from America were amongst the speakers.

(Patrick Walsh, William Catalona and Vipul Patel)

Decrease in cancer deaths:

In 1995 there were 40,400 deaths from prostate cancer in the United States and by 2007 only 27,050 - a 33% decrease - the largest decrease in cancer deaths in men or women for any cancer during this year! The reason for the decreased death rate is **early diagnosis and treatment**.

PSA, when used intelligently, is a powerful marker for prostate cancer. Avoiding 27,000 cancer deaths per year is worth the trade-offs.

In a study done by Catalona et al, they found that in the patients who had a PSA of more than 4ng/ml, 75% of cancers detected were moderately or poorly differentiated and therefore of significant importance. They looked at the PSA results of 13,943 men between 40 and 60 years of age over a period of ten years and found the following: ⁽¹⁾

Median PSA for men without prostate cancer:

Age group	Median PSA
40-49	0.7
50-59	0.9
>60	1.4

Relative risks for men in 40's:

Serum PSA	Relative risk for prostate cancer
< 0.7	1
0.7-2.5	10
2.6-4	104
>4.0	238

It is therefore suggested that every man should have a PSA at the age of 40. If that is less than 0.7 then the risk of developing cancer later in life is quite small, but if it is more than 0.7 then close monitoring in the future would be very important.

PSA velocity: For men with a consistent rise in PSA of more than 0.35ng/ml/year, there is a five-fold increased risk of prostate cancer death in the next two to three decades.

CURRENT RECOMMENDATIONS FOR THE USE OF PSA TO DIAGNOSE PROSTATE CANCER AT AN EARLY STAGE:

(1) Establish a **base line PSA** at age 40 **before** men have benign prostatic enlargement. (age 35 in men with a family history of early-onset prostate cancer (age 60 or younger)). If PSA levels are greater than 0.7ng/ml these men have a four-fold increased life time risk for developing prostate cancer and need to be followed closely. (Six monthly PSA for two years to confirm stability and then annually)

If the PSA is higher than the median for the age group, immediate repeat testing should be performed to verify the result (no prostate manipulation or ejaculation for 48 hours).

(2) **PSA velocity** - yearly change expressed in ng/ml/year. For PSA levels less than 4ng/ml, any consistent yearly increase in PSA, even 0.2 to 0.4 ng/ml/year, is worrisome and is associated with increased mortality from prostate cancer.

For men with PSA greater than 4ng/ml the cut-off point for PSA velocity is 0.75ng/ml/year

Example: If two men have a PSA of 3.0 and you know that one year ago one had a PSA of 3 and the other 1, it is easy to figure out that the latter is more likely to have cancer and advanced disease.

(3) **Free PSA** – if the free portion is less than 10% to 15% it is more indicative of malignancy rather than a benign condition as prostate cancer produces PSA that tends to bind to other proteins in the blood.

THE CAUSE OF THE ELEVATED BASELINE PSA LEVELS MAY INCLUDE:

1. Premalignant lesion or small infiltrating carcinoma in the prostate.
2. Elevated androgen secretion, which causes an increased PSA level and possible prostate cancer.
3. Prostatic inflammation could possibly increase the risk of cancer
4. The elevation of PSA might also play a role in the pathogenesis, possibly through its effects on insulin-like growth factor-1.

PREVENTION OF PROSTATE CANCER

1. Reduce caloric intake or increase exercise to maintain a healthy weight.
2. Reduce the intake of fat in dairy products, red meat, milk, cheese, butter and ice cream.
3. Reduce calcium intake and/or increase exposure to sunlight. (Increased calcium intake can reduce the production of Vitamin D in the kidney).
4. There is no evidence that Saw Palmetto or Zinc is helpful.
5. Men should limit the amount of Vitamin E and Selenium in their diet to no more than the amount in the Multivitamins. The best preventative nutrient is to eat an apple a day instead.

References:

- (1) Loeb S, Catalona WJ et al. Urology. 2006; 67: 316-20.
- (2) Walsh PC J Urol 2007; 178: 136
- (3) Lilja H et al. J Clin Oncol 2007; 25: 431-6