

Original article:

Correlation between serum PSA level and prostate biopsy at Dr Hedgewar Hospital in Marathwada region

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Abstract:

Introduction: The prevalence of the prostate cancer is increasing in Asia. ¹Currently, the common tools for diagnosis of prostate cancer are the digital rectal examination (DRE) and a serum prostate-specific antigen (PSA) test. The combination of both DRE and PSA testing leads to a greater detection of prostate cancer. If abnormal results are shown on both tests, a prostate biopsy is recommended for a definitive tissue diagnosis of prostate cancer.

Material and methods: This was prospective cross sectional study carried out during last one year in our Hospital.

In our present study 145 patients were participated. Number of patients with BHP were 64 , number of patients with CA Prostate 10 while number of patients with Prostatitis were 71 .

The sample size was estimated with the help of expert.

Results : We hereby found that patients with serum PSA level between 0 to 20 showing diagnosis after prostate biopsy/surgery was; 64 patients having benign hyperplasia of prostate; 10 patients are diagnosed with CA Prostate; 71 patients diagnosed with Prostatitis

Conclusion: In conclusion, with the use of serum total PSA in clinical practice, the prevalence of prostate cancer a strong correlation was found in our work.

Introduction:

The prevalence of the prostate cancer is increasing in Asia. ¹Currently, the common tools for diagnosis of prostate cancer are the digital rectal examination (DRE) and a serum prostate-specific antigen (PSA) test. The combination of both DRE and PSA testing leads to a greater detection of prostate cancer. If abnormal results are shown on both tests, a prostate biopsy is recommended for a definitive tissue diagnosis of prostate cancer. The high sensitivity and low specificity of PSA testing in the diagnosis of prostate cancer is a problem in clinical practice.²The common tool for diagnosing prostate cancer is serum prostate-specific antigen (PSA) testing and digital rectal examination, but the disadvantage of the high sensitivity and low specificity of PSA testing in the diagnosis of prostate cancer is a problem in clinical practice. ³With this background in mind , We studied the diagnostic performance and Correlation between serum PSA level and prostate biopsy at Dr Hedgewar Hospital in Marathwada region.

Material and methods:

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PSA Test:

Prostate-specific antigen, or PSA, is a protein produced by normal, as well as malignant, cells of the prostate gland. The PSA test measures the level of PSA in a man's blood. For this test, a blood sample is sent to a laboratory for analysis. The results are usually reported as nanograms of PSA per milliliter (ng/mL) of blood.

The blood level of PSA is often elevated in men with prostate cancer, and the PSA test was originally approved by the FDA in 1986 to monitor the progression of prostate cancer in men who had already been diagnosed with the disease. In 1994, the FDA approved the use of the PSA test in conjunction with a digital rectal exam (DRE) to test asymptomatic men for prostate cancer. Men who report prostate symptoms often undergo PSA testing (along with a DRE) to help doctors determine the nature of the problem.

Prostate Biopsy:

A prostate biopsy involves using thin needles to take small samples of tissue from the prostate. The tissue is then looked at under a microscope to check for cancer.

Results:

Serum PSA level	Serum PSA level 0-20	Serum PSA level 20-40	Serum PSA level 40-60	Serum PSA level 60-80	Serum PSA level 80-100	Serum PSA level >100
Number of patients with BHP	64	1	1	0	0	0
Number of patients with CA Prostate	10	3	2	0	0	0
Number of patients with Prostatitis	71	6	0	0	0	0

We hereby found that patients with serum PSA level between 0 to 20 showing diagnosis after prostate biopsy/surgery was; 64 patients having benign hyperplasia of prostate; 10 patients are diagnosed with CA Prostate; 71 patients diagnosed with Prostatitis;

Patients with serum PSA level between 20 to 40 showing diagnosis after prostate biopsy/surgery was; 01 patients having benign hyperplasia of prostate; 03 patients are diagnosed with CA Prostate; 06 patients diagnosed with Prostatitis;

Patients with serum PSA level between 40 to 60 showing diagnosis after prostate biopsy/surgery was; 01 patients having benign hyperplasia of prostate; 02 patients are diagnosed with CA Prostate; 00 patients diagnosed with Prostatitis .

Discussion:

Prostate cancer is the most common non-skin cancer in men in the United States and the second leading cause of cancer death after lung cancer.³ In Jordan, prostate cancer is the third most common cancer in men, after lung and bladder cancers, with incidence of 5.6 per 100 000 men in the year 2001. Nowadays, the most accepted tools for the diagnosis of prostate cancer are the DRE and serum PSA. PSA testing has been used in clinical practice since 1986 and has led to changes in screening and the early diagnosis of prostate cancer, which is followed by earlier treatment. The widespread use of PSA screening had led to an increase in overall survival. More early-stage prostate cancer is diagnosed. The number of prostate cancer patients with metastatic stages and comorbidities has decreased more than 25% owing to greater detection of confined tumors early. The usefulness of PSA testing has been shown for early diagnosis, assessing the response of treatment, and determining tumor progression.^{4,5}

In our present study , we hereby found that patients with serum PSA level between 0 to 20 showing diagnosis after prostate biopsy/surgery was; 64 patients having benign hyperplasia of prostate; 10 patients are diagnosed with CA Prostate; 71 patients diagnosed with Prostatitis;

Patients with serum PSA level between 20 to 40 showing diagnosis after prostate biopsy/surgery was; 01 patients having benign hyperplasia of prostate; 03 patients are diagnosed with CA Prostate; 06 patients diagnosed with Prostatitis;

Patients with serum PSA level between 40 to 60 showing diagnosis after prostate biopsy/surgery was; 01 patients having benign hyperplasia of prostate; 02 patients are diagnosed with CA Prostate; 00 patients diagnosed with Prostatitis .

Conclusion:

In conclusion, with the use of serum total PSA in clinical practice, the prevalence of prostate cancer a strong correlation was found in our work.

References:

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