

URINARY PCA 3 VERSUS SERUM PSA FOR THE DIAGNOSIS OF PROSTATE CANCER & TO REDUCE PROSTATE BIOPSIES

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Sir, a latest study report for the year 2013 by Boelkins et al, had shown that a prostatic cancer screening test i.e prostate specific antigen (PSA) can be positive for even the cases which might not require the management. So, in view of that a new and more accurate diagnostic modality had been introduced i.e urinary prostate cancer antigen 3 (PCA3). This on comparison with PSA levels definitely reduces the chances of taking serial biopsies for the confirmation of CA prostate.¹

This more specific PCA3 gene is widely distributed and over-expressed in the cancer cells of prostate.^{2,3} The sensitivity and specificity of PCA3 is about 70% and 79% respectively when compared with that of PSA i.e 27% and 47% especially for taking initial biopsy.⁴⁻⁶ Crawford et al (2012); by his study described that the chances of false positive and unnecessary prostate biopsies can be reduced to about 77%.⁷ A study report by Clarke et al (2009); had shown that the level of PCA3 is helpful to discriminate between the prostate cancer and benign prostatic hyperplasia. It is a highly specific upregulated marker in prostatic cancer.⁸

The principle PCA3 test is based upon the molecular level detection of PCA3 mRNA. The value of PCA3 can be detected by getting the ratio of PCA3mRNA to that of PSAmRNA multiplied by 1000.⁹

Moreover a published report for the year 2013 by Food and drug administration (FDA) had recommended the use of urinary PCA3 levels in more than 50 years old males as a screening test for CA prostate.¹⁰

In view of all the available literature, it is suggested that PCA3 has a significant role to reduce the number of biopsies carried out as a result of raised PSA levels. However, the earlier the diagnosis better will be the management outcomes of said malignancy. And will definitely be a step forward to reduce the miseries of such patients.

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