

Does Prostatic Calcification Affect Serum Prostatic Specific Antigen?

Introduction and Objectives: To investigate total serum prostatic specific antigen (PSA) value in patients with prostatic calcification compared with benign prostatic hyperplasia (BPH) without calcification. Prostatic cancer is the most prevalent cancer in men and is the second most common cause of death. The cancer when confirmed to the prostatic potentially can be cured. Early detection of prostatic cancer is therefore necessary. PSA is a sensitive marker for prostate cancer but there may be false positive in many patients because of BPH, prostatitis or many other causes. In this study we evaluated the effect of prostate calcification on serum PSA in elderly patients.

Materials and Methods: Serum total PSA was measured in 41 men presenting as BPH symptoms with prostatic calcification. In control group, there were 41 BPH patients without calcification. All patients with prostatic adenocarcinoma rolled out.

Results: In all 41 men (mean age 57.7 years, range 46-81) serum PSA were accessed. The mean prostatic volume was 54.1 ± 24.4 mL and the mean PSA value was 3.1 ± 2.1 ng/mL. In the control group there were 41 patients (mean age 57.8 years, range 47-80) with BPH without calcification. In this group the mean prostatic volume was 43.3 ± 19.2 mL and mean serum PSA level was 1.9 ± 1.3 ng/mL. There were significant difference in serum PSA level between two groups ($P=0.04$).

Conclusion: Prostatic calcification could change the total serum PSA or PSA density as high as 50%. This should be considered in differential diagnosis of BPH or prostatic adenocarcinoma.