

IMPACT OF DIGITAL RECTAL EXAMINATION (DRE) ON TOTAL SERUM LEVELS OF PROSTATE SPECIFIC ANTIGEN (tPSA)

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Objectives: The impact of DRE on serum tPSA levels remains controversial. The objective of this study was to evaluate the effect of DRE on serum tPSA.

Materials and Methods: Serum total PSA was determined in 51 patients before and 30 minutes after DRE. Patients with infection of the prostate gland, prostate cancer and patients who had undergone any type of prostatic manipulation in the last three months such as cystoscopy, urinary bladder catheterization or prostate biopsy were excluded. tPSA was measured in ng/ml in the same laboratory. The results were estimated and analyzed with SPSS V.17 and McNemar's test was performed to compare and to assess the differences between pre-DRE and post-DRE PSA values. Statistical significance was applied to P values of 0.05 or less.

Results: Median age of the patients was 63 years (range 56-73). The range of tPSA before DRE was 0.7-21 ng/ml, while 30 minutes after DRE was 0.8-19ng/ml respectively. Mean PSA values of pre-DRE were 3.72 ± 2.1 (mean \pm SD) with a median value of 3.28, while post-DRE PSA values were 3.84 ± 1.9 (mean \pm SD) with a median value of 3.57. In 34 individuals an increase of tPSA levels was observed, in 15 there was a decrease, while in 2 there was no difference. The difference between median values of tPSA, before and after the examination, was minimal and non significant ($p > 0.05$).

Conclusions: Our data show that DRE does not significantly influence the serum tPSA levels.