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PROGNOSTIC FACTORS FOR ENLARGED PROSTATE IN HEALTHY MEN'S ADULTS: A CROSS-SECTIONAL STUDY

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ABSTRACT

Introduction: Given the significance of the association between anthropometric variables and disease outlook, alongside prostate-specific antigen levels and prostate volume preceding prostate cancer diagnosis, coupled with limited research in this domain, our current investigation endeavors to explore the correlation between prognosis and prostate-specific antigen levels, as well as prostate volume metrics, among adult men.

Material and methods: This cross-sectional study was conducted in 2020 on adult male patients over 40 years old who had been referred to Imam Khomeini Hospital in Ahvaz, Iran for annual screening. Demographic factors along with prostate-specific antigen level and prostate volume were collected by the physician and the study evaluator to examine the relationship with disease prognosis from all patients.

Results: By examining 180 adult men with a mean age of 58.61 ± 10.01 years; the results show that the mean prostate volume in the total study population was 40 ± 6.93 milliliters.

Analytical analysis shows that body mass index has a direct but relatively weak significant relationship with prostate volume ($r=0.155$, $p=0.038$). This is while the patients' age showed a stronger and more direct significant relationship with volume ($r=0.862$, $p<0.001$) and prostate-specific antigen ($r=0.403$, $p<0.001$). On the other hand, the relationship between prostate volume and prostate-specific antigen of patients was reported as a strong direct significant relationship ($r=0.314$, $p<0.001$). This is while the relationship between body mass index and prostate-specific antigen in the community was weak and insignificant ($r=0.135$, $p<0.072$).

Conclusion: The study results indicate that the patient's age is an important factor for screening in men for prostate examination and in men over 40 years old it is considered a valuable prognostic factor. Also, body mass index level can be used as a factor to control prostate volume in adult men.

KEYWORDS: prostate cancer, prognosis, prostate-specific antigen, serum, prostate volume.

INTRODUCTION

Prostate carcinoma ranks as the second most prevalent cancer among males worldwide and stands as a primary contributor to cancer-related fatalities in developed regions [WHO 2012, Ferlay J et al., 2015; Torre L et al., 2015]. Annually, the

World Health Organization identifies prostate cancer in 1.1 million men globally, constituting 15% of all male cancer diagnoses [Gann P, 2002]. This malignancy claims the lives of 307,000 individuals annually across the globe. Although prostate tu-

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