

Effect of androgen deprivation therapy on cardiovascular risk factors in prostate cancer

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Abstract

Background: Androgen deprivation is the basis of treatment for advanced stages of prostate cancer. Cardiovascular disease may be a risk factor for mortality in prostate cancer. Therefore, we decided to evaluate the effect of androgen-deprivation therapy (ADT) on cardiovascular risk factors in patients with prostate cancer.

Materials and Methods: In a cross-sectional study on 2011, 35 patients suffering from metastatic prostate cancer as candidates for ADT were enrolled. Serum levels of fasting blood sugar (FBS), triglyceride (TG), and total cholesterol (TC) were measured at the beginning and after the 5th month of ADT.

Results: The mean level of TG increased significantly from 130.82 ± 41.57 mg/dl to 150.05 ± 48.29 mg/dl ($P < 0.012$). Also, serum level of TC increased from 197.62 ± 40.71 mg/dl to 212.54 ± 38.25 mg/dl, which is statistically significant ($P < 0.001$). A non-significant increase in serum level of FBS from 96.74 ± 14.04 mg/dl to 99.17 ± 15.23 mg/dl was also seen ($P = 0.27$).

Conclusion: ADT in prostate cancer may lead to an increase in TG and TC levels. In the patients with a high risk of cardiovascular disease patient's lipid profile should be considered during ADT.

Key words: Androgen antagonist, blood glucose, cholesterol, prostatic neoplasms, triglycerides