Prevalence of Cardiovascular Disease and Osteoporosis during Androgen Deprivation Therapy Prescription Discordant to EAU Guidelines: Results From a Multi-Center Cross-Sectional Analysis From the CHOsIng Treatment for Prostate canC Er (CHOICE) Study.


Abstract

OBJECTIVE: To analyze the prevalence of cardiovascular disease and osteoporosis in patients treated with androgen deprivation therapy (ADT) for prostate cancer (PCa) but not adherent to European association of urology (EAU) guidelines.

MATERIALS AND METHODS: The CHOIng treatment for prostate canC Er (CHOICE) study was an Italian multicenter cross-sectional study conducted from December 2010 to January 2012. A total of 1386 patients treated with ADT for PCa (first prescription or renewal of ADT) were selected. According to EAU guidelines, the cohort was categorized in discordant ADT (Group A) and concordant ADT (Group B). The prevalence of cardiovascular disease and osteoporosis after ADT were recorded.

RESULTS: The final cohort included 1075 patients. According to EAU guidelines adherence, 285 (26.51%) and 790 (73.49%) were considered discordant and concordant respectively. The proportion of men with CCI > 2 at baseline was statistically similar in Group A (81.8%) compared to Group B (80.8%) (p=0.96). The number of complications reported at enrolment was as following: cardiovascular in 351 (32.7%) subjects, endocrine in 166 (15.4%), sexual in 498 (46.3%), osteoporosis in 181 (16.8%) and gynecomastia in 274 (25.5%). At the multivariate logistic regression analysis adjusted for confounding factors, discordant ADT was associated with greater risk of cardiovascular complications (OR: 2.07; p<0.01) and osteoporosis (OR: 1.75; p=0.04).

CONCLUSION: About one third of patients with PCa received inappropriate ADT and showed a greater risk cardiovascular disease and osteoporosis. These results could be useful for setting better policy strategies in order to limit the inappropriateness of ADT prescription.

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KEYWORDS: Androgen deprivation therapy; adherence; cardiovascular disease; guidelines; osteoporosis; prostate cancer