

TESTOSTERONE TREATMENT IN ELDERLY HYPOGONADAL PATIENTS DOES NOT INCREASE PROSTATE CANCER RISK: RESULTS OF A PROSPECTIVE COMPARATIVE STUDY. 6 YEARS FOLLOW UP ANALYSIS TO AGE-MATCHED CONTROLS

A. A. Yassin^{1,2,3}, A. D.-J. Yassin⁴, A. Haider⁵, F.A. Saad^{6,7}

¹*Institute of Urology & Andrology, Segeberger Kliniken, Norderstedt-Hamburg/Germany*

²*Dresden International University, Program of Preventive Medicine, Dresden/Germany*

³*Gulf Medical University School of Medicine, Ajman/UAE*

⁴*Asklepios Klinik Barmbek, Dept. of Urology, Hamburg/Germany*

⁵*Private Urologic Practice, Bremerhaven/Germany*

⁶*Bayer Schering Pharma AG, Berlin/Germany*

⁷*Gulf Medical University, Research Dept., Ajman/UAE*

Objective: Evaluating CaP prevalence in elderly hypogonadal subjects under TRT compared with age-matched control group

Methods: 154 hypogonadal patients (58 +/- 1.7 years) received injectable long-acting TU 1000 mg, compared to 160 eugonadal men (59 +/- 2.8 years) visiting clinic for check up. Monitoring included co-morbidities, medication, International Prostate Symptom Score (IPSS), PSA, digital rectal examination (DRE), prostate volume measured by transrectal ultrasound (TRUS). Biopsies were performed at PSA velocity > 0.75 ug/L

Results: Hypogonadal patients have lower PSA and smaller prostates (0.68 +/- 0.4 ug/L and 25.6 +/- 1.4 ml). Control subjects had initially PSA of 2.42 +/- 1.2 ug /L, and prostate volume 38.4 +/- 2.42 ml. Patients with PSA velocity in the observation period was > 0,75 ug /L, underwent TRUS-guided biopsies. In TRT group 5/22 who underwent biopsies showed CaP, three of them unilateral with up to 10% tumor cells in a core. Gleason scores were 3+2 or 3+3. In the 160 control subjects, 16/39 who underwent biopsies showed CaP, 4 of them bilateral, with a significantly higher Gleason score of 3+3 till 4+5 and up to 80% tumor cells in a core. No subject of both groups showed any abnormality in rectal palpation.

Conclusions: Hypogonadal subjects have smaller prostates and lower PSA than eugonadal ones. TRT doesn't increase CaP incidence. TRT group had smaller tumors and less malignancy. Hypogonadism offers no protection against the development of biopsy-detectable prostate cancer. Lower levels of testosterone were associated with an increased risk of cancer.