

Testosterone treatment sustainably improves both International Index of Erectile Function & International Prostate Symptoms Score in hypogonadal patients with erectile dysfunction

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Objectives: The Metabolic Syndrome (MeTS) is often associated with erectile dysfunction (ED) and lower urinary tract symptoms (LUTS). We studied long-term effects of testosterone treatment (TRT) in hypogonadal subjects on MeTS, ED and LUTS following treatment with parenteral testosterone undecanoate.

Methods: A cumulative study of 251 men (aged 38–83, mean 60.6 ± 8.0 years), with testosterone levels between 0.14 – 3.50 ng/mL with late onset hypogonadism (LOH). Cut-off point for testosterone treatment was serum testosterone < 3.50 ng/mL). 214 men were studied for at least 2 years and 115 for at least 5 years.

Results: A remarkable progressive and sustained increase of International Index of Erectile Function (IIEF), most pronounced over the first 15-18 months and of International Prostate Symptoms Score (IPSS) most pronounced over the first 18-24 months but still slowly progressive thereafter. Simultaneously we observed a progressive decline of body weight and waist circumference over 5 years. Profiling of lipidogram, diabetes control, inflammatory marker as well as systolic and diastolic blood pressure progressively declined.

Conclusions: Sustainable and progressive improvement of IIEF and IPSS was remarkable in conjunction with improvement of body composition, obesity components, lipid metabolism, inflammatory markers and blood pressure. We assume that ischemia, impairment of nitric oxide (NO) production and inflammation play a role in the etiology of ED and LUTS which often occur in parallel pattern. Substantially, improvement of cardiovascular risk factors could underline the modulation of both erectile and voiding function. TRT in hypogonadism might reduce inflammation and might have had direct effects on NO mechanisms and reduction of ischemia and improvement of erectile and voiding capacities.