

Long-term treatment with testosterone undecanoate injections leads to sustained weight loss independent of age: observational data from two registry studies

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Introduction: Reductions of body weight and waist circumference have been reported by two independent groups from their registry studies (Saad F et al., *Obes* 2013, 21:1975-1981; Yassin and Doros, *Clin Obes* 2013, 3:73–83).

Methods: 561 hypogonadal men from both registry studies were divided according to age groups: ≤ 65 years (Group A, $n=450$) and >65 years (Group B, $n=111$) were selected. The majority of patients were obese with less than 5% in the normal weight range. All men were treated with three-monthly testosterone undecanoate injections for up to 6 years.

Results: Mean weight (kg) decreased from 102.52 ± 15.56 to 90.15 ± 9.69 in Group A and from 102.83 ± 15.64 to 95.35 ± 9.03 in Group B. Model-adjusted mean change from baseline was -14.78 ± 0.35 and -15.14 ± 0.71 kg, resp. In both groups, the decrease was statistically significant vs baseline and each year compared to previous year.

Percent change from baseline was $-13.56 \pm 7.56\%$ in Group A and $-13.28 \pm 7.14\%$ in Group B.

Waist circumference (cm) decreased from 106.54 ± 9.03 to 98.26 ± 7.1 in Group A and from 108.95 ± 10.75 to 100.72 ± 9.45 in Group B. This decrease was statistically significant vs baseline and each year compared to previous year in both groups. The mean change from baseline was 9.34 ± 0.2 cm in Group A and 10.45 ± 0.47 cm in Group B.

Body mass index (BMI; kg/m^2) decreased from 32.58 ± 5.08 to 29.02 ± 3.01 in Group A and from 32.84 ± 4.86 to 30.35 ± 2.61 in Group B. The mean change from baseline was -4.72 ± 0.11 and -4.81 ± 0.22 kg/m^2 , respectively.

Conclusions: Testosterone replacement therapy in hypogonadal men resulted in meaningful and sustained weight loss independent of age.