

Comparable weight loss in hypogonadal men with obesity grades II and III under long-term treatment with testosterone undecanoate injections: observational data from two registry studies

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Maximum 250 words

Introduction: In a bi-directional relationship, testosterone deficiency may cause obesity, and obesity may cause hypogonadism. In epidemiological studies, an up to 52% prevalence of hypogonadism in obese men has been reported.

Methods: From two registry studies of hypogonadal men, 131 men with obesity grade II (Group A) and 46 men with obesity grade III (Group B) were selected. All men were treated with three-monthly testosterone undecanoate injections for up to 6 years.

Results: Mean weight (kg) decreased from 117.02 ± 6.99 to 96.78 ± 7.47 in Group A and 129.02 ± 5.67 to 103.33 ± 4.17 in Group B. Mean change from baseline was -20.67 ± 0.51 and -27.15 ± 0.74 kg, resp. In both groups, the decrease was statistically significant vs baseline and each year compared to previous year ($p < 0.0001$).

Percent change from baseline at the end of the observation time was $-17.03 \pm 5.02\%$ in Group A and $-20.99 \pm 3.16\%$ in Group B.

Waist circumference (cm) decreased from 114.23 ± 7.51 to 102.52 ± 6.5 in Group A and from 118.41 ± 5.69 to 106.48 ± 4.91 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 12.29 ± 0.33 cm in Group A and 12.44 ± 0.36 cm in Group B.

Body mass index (BMI; kg/m^2) decreased from 37.39 ± 1.46 to 31.05 ± 2.02 in Group A and from 41.93 ± 1.5 to 33.62 ± 1.58 in Group B. The mean change from baseline was 6.58 ± 0.16 and 8.79 ± 0.23 kg/m^2 , respectively.

No patient gained weight.

Conclusions: Testosterone replacement therapy in hypogonadal men with obesity grade II and III resulted in meaningful and sustained weight loss.