Meaningful and sustained weight loss and improvement of lipid profile in hypogonadal men on long-term treatment with testosterone undecanoate (TU) injections are independent of age: observational data from two registry studies

F Saad, A Haider, A Yassin, G Doros, A Traish

Maximum 250 words

Introduction: Improvements of anthropometric and metabolic parameters on long-term testosterone replacement therapy (TRT) from our registry studies have been reported in 2013 (Saad, Obes; Yassin and Doros, Clin Obes; Traish, Int J Clin Pract).

Methods: 561 hypogonadal men from both registry studies were divided into age groups ≤65 (Group A, n=450) and >65 years (Group B, n=111). All men were treated with three-monthly TU 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. Percent change from baseline was -13.56±7.56% in Group A and -13.28±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. 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 ($p<0.0001$ for all).

Total cholesterol (TC, mg/dl) decreased from 268.92±45.95 to 193.56±16.58 in Group A and from 268.44±52.69 to 191.69±21.8 in Group B, LDL (mg/dl) from 159.87±36.7 to 119.81±34.87 in Group A and from 162.48±31.63 to 120.86±33.56 in Group B, triglycerides (mg/dl) from 262.35±73.16 to 192.1±34.4 in Group A and from 266.9±84.37 to 192.27±32.16 in Group B. HDL (mg/dl) increased from 48.91±17.33 to 59.55±17.66 in Group A and from 51.64±16.56 to 61.99±16.87 in Group B. TC:HDL ratio improved from 6.15±2.42 to 3.54±1.04 in Group A and from 5.67±2.09 to 3.32±0.91 in Group B ($p<0.0001$ for all).

Conclusions: TRT in hypogonadal men resulted in meaningful and sustained weight loss and improvement of lipid profile independent of age.