

# 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

Saad F<sup>1,2</sup>, Haider A<sup>3</sup>, Yassin A<sup>2,4,5</sup>, Doros G<sup>6</sup>, Traish A<sup>7</sup>

<sup>1</sup>Global Medical Affairs Andrology, Bayer Pharma, Berlin, Germany

<sup>2</sup>Gulf Medical University, Ajman, UAE

<sup>3</sup>Private Urology Practice, Bremerhaven, Germany

<sup>4</sup>Institute for Urology and Andrology, Norderstedt, Germany

<sup>5</sup>Dresden International University, Dresden, Germany

<sup>6</sup>Department of Epidemiology and Statistics, Boston University School of Public Health, Boston, Mass, USA

<sup>7</sup>Departments of Biochemistry and Urology, Boston University School of Medicine, Boston, Mass, USA

## 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<sup>2</sup>) 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<sup>2</sup>, 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.

