

### Objectives:

Hypogonadism is often associated with erectile dysfunction (ED) and lower urinary tract symptoms (LUTS) and impaired Quality of Life. We studied long-term effects of testosterone treatment in elderly hypogonadal men treated with parenteral testosterone undecanoate.

### Material and Methods:

A cumulative registry study of 255 men (mean age:  $60.6 \pm 8.0$  years) with testosterone levels  $\leq 3.50$  ng/mL were treated with injectable testosterone undecanoate for up to 60 months. Injections were administered with an initial 6-week interval (loading dose) followed by 12-week intervals.

### Results:

The International Index of Erectile Function (IIEF) increased from  $21.13 \pm 4.63$  at baseline to  $24.83 \pm 3.8$  after 60 months, most pronounced over the first 24 months but still slowly progressive thereafter. The International Prostate Symptoms Score (IPSS) improved from  $6.73 \pm 4.21$  to  $2.83 \pm 1.25$  ( $p < 0.0001$ ) vs baseline with significant changes over the previous year up to 48 months). As an objective measurement, residual bladder volume decreased from  $46.61 \pm 22.74$  mL to  $19.74 \pm 6.25$  mL ( $p < 0.0001$ ) vs baseline with significant changes over the previous year up to 48 months). Quality of life was assessed by the Aging Males' Symptoms score (AMS). AMS improved from  $55.01 \pm 10.2$  to  $17.35 \pm 0.55$  ( $p < 0.0001$ ) vs baseline) reaching a plateau after 24 months.

Inflammation plays a role in both erectile and urinary function. As measures of inflammation, highly sensitive C-reactive protein (hsCRP) and leukocyte count were assessed. hsCRP decreased from  $6.29 \pm 7.96$  mg/L to  $1.03 \pm 1.87$  ( $p < 0.0001$ ) vs baseline) with a plateau after 36 months. Leukocyte count decreased from  $8.06 \pm 2.98 \times 10^9/L$  to  $5.74 \pm 0.81$  ( $p < 0.0001$ ) vs baseline).

### Conclusion: