and the duration of TRT (B=0.153, Exp(B)=1.166, p<0.001) were independent predictive factors for maintenance of response.

CONCLUSIONS: In hypogonadal men in whom TRT was effective, the longer period of treatment can improve the durability of response after stopping TRT, regardless of the type of testosterone treatment. Regular exercise can also lead to 10-fold increase of probability of maintaining the response after cessation of TRT.

Source of Funding: none

MP85-13

ERECTILE FUNCTION IN 478 HYPOGONADAL MEN WITH MODERATE TO SEVERE ED WITH AND WITHOUT TESTOSTERONE THERAPY FOR UP TO 10 YEARS

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INTRODUCTION AND OBJECTIVES: Long-term data for treatment of erectile dysfunction (ED) are scarce. We investigated effects of testosterone therapy (TTh) in a registry study in a urological office setting in comparison to an untreated hypogonadal control group.

METHODS: 478 men with testosterone ≤350 ng/dL and hypogonadal symptoms had moderate to severe ED according to IIEF-EF (5+1, maximum score: 30). 246 received testosterone undecanoate injections (TU) 1000 mg/12 weeks following an initial 6-week interval (T-group). 232 men opted against TTh and served as controls (CTRL). 10-year data are presented. Changes over time between groups were compared by a mixed effects model for repeated measures with a random effect for intercept and fixed effects for time, group and their interaction, and adjusted for age, weight, waist circumference, blood pressure, fasting glucose, lipids and quality of life to account for baseline differences between groups.

RESULTS: Total group: mean age was 61±7 years (T-group: 58±8, CTRL: 64±5). 34% of men in the T-group and 44% in CTRL had type 2 diabetes at baseline (p<0.05). 91% of men in the T-group and 77% in CTRL had hypertension at baseline (p<0.0005). In the T group, IIEF-EF increased from 15.2±3.7 to 25.7±2.2 at 10 years (p<0.0001) with a change from baseline by 11.5 points. The improvement was statistically significant for the first nine years. In CTRL, IIEF-EF decreased from 18.2±2.6 to 9.6±1.8 (p<0.0001) by 9.8 points. The decrease was statistically significant for the first nine years. The estimated adjusted difference between groups at 10 years was 19.7 (p<0.0001).Use of PDE5 inhibitors at baseline was 25.2% in the T-group and 22.4% in CTRL (non-significant).Baseline weight was 102.9±17 kg in the T-group and 95.7±13 in CTRL (p<0.0001). Only 9.3% of patients in the T-group and 8.6% in CTRL had normal weight at baseline. Men in the T-group lost 18.6±9.1% of their baseline weight at 10 years (p<0.0001) while men in CTRL gained 2.2±4.6% (p<0.0001). The estimated adjusted difference between groups at 10 years was 19.4% (p<0.0001).Medication adherence to TTh was 100% as all injections were applied in the office and documented.

CONCLUSIONS: TTh in hypogonadal men improves erectile function over a long period of time. It deteriorates in untreated hypogonadal men. These results may in part be mediated by changes in body weight.

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MP85-14

VARIANCE IN PEAK AND TROUGH TESTOSTERONE LEVELS IN MEN USING INTRAMUSCULAR TESTOSTERONE

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INTRODUCTION AND OBJECTIVES: In men using intramuscular testosterone (IM T), clinical experience shows us that, despite stable dosing and frequency, total testosterone peak (Tp) and trough (Tt) levels are highly variable, thus challenging the clinician to make a decision regarding dose adjustments. The goal of this study was to define the variability in T levels in a population of men on IM T.

METHODS: Patients with 3 consecutive Tp and Tt levels available, while on a stable dose and interval of IM T cypionate were analyzed. All patients were instructed as follows: Tp levels to checked 18 hours after IM T injection, and Tt levels to be drawn the following week on the day of injection, prior to injecting the next dose. We report on Tp, Tt and Δ (Tp-Tt). T level was measured using LC/MS-MS. To assess for T level variation across the 3 cycles, we calculated mean change in Tp and Tt as well as maximal change in Tp and Tt. Distribution analysis was performed to assess for variance distribution.

RESULTS: 29 patients met the inclusion criteria equating to 174 total T levels analyzed. Mean age was 52±28y. Dose distribution was: 3% receiving 40mg, 10% 60mg, 35% 80mg, 38% 100mg, 7% 120mg and 7% receiving other dose. 83% were injecting every 7 days. Averaged over 3 cycles, mean Tp was 910±165 ng/dl; mean Tt 558±80ng/dl, mean Δ 352±154. Mean Tp variance was 210±99ng/dl representing a 23% change from cycle to cycle. Mean Tt variance = 102±63ng/dl (17.5% change). Averaged over all patients, maximum Tp change was 315±148ng/dl and maximum Tt change was 152±94ng/dl, representing a maximum change of 37% and 26% respectively. In distribution analysis, 25% of patients had a maximum Tp change greater than 51% and maximum Tt change of 35%.

CONCLUSIONS: In our population of patients on stable IM T dose, there was a wide mean variation in both Tp (23%) and Tt (17.5%). In addition to that, 25% of patients had a maximum Tp change greater than 50% and maximum Tt change greater than 35%. Clinicians should be aware of this high variability in levels when deciding on dose adjustment.

Figure 1.

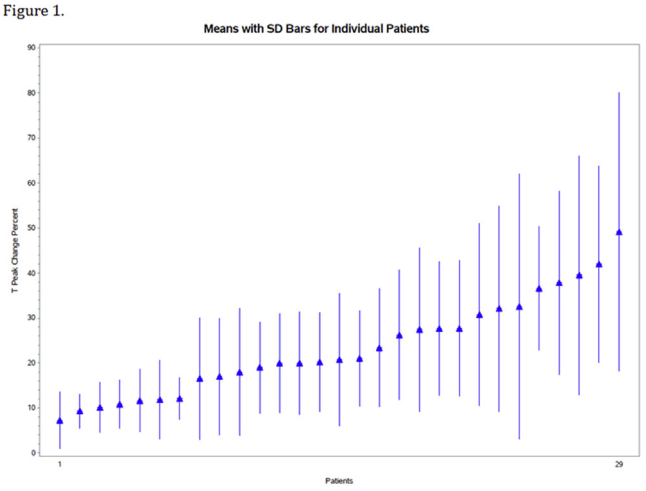

Figure illustrates mean T peak variance in our population.

Source of Funding: None

MP85-15

TESTOSTERONE TREATMENT IN MEN WITH CLASSICAL VS FUNCTIONAL HYPOGONADISM:RESULTS FROM A 9-YEAR-REGISTRY

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INTRODUCTION AND OBJECTIVES: There are limited data on long-term effects of Testosterone (T) therapy in hypogonadal men and clinical value of this treatment in men with functional (late-onset) hypogonadism remains hotly debated. A long-term registry comprising various groups of patients provides an efficient tool to approach this issue.