

Transdermal or Endogenous Testosterone in Men with Androgen Deficiency Syndrome and Diabetes Mellitus?

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Abstract

Objective: To compare the effect of Transdermal Testosterone (TT) or Clomiphene Citrate (CC) administration on metabolic control, erectile function and quality of life in patients with T2DM.

Materials and patients: The study population included 40 men with T2DM up to 60 years old, who were on metformin monotherapy at doses up to 2550 mg daily over the last three months. The patients had total testosterone values between 8 and 12 nmol/L and LH levels within the normal range. Other causes of hypogonadism were excluded. The patients were asked to answer the IIEF and the SF-36 surveys. BMI, WC, lipid profile, HbA1c, testosterone, SHBG, LH, FSH, PSA, and albuminuria were monitored at their initial visits, and on the 12th and the 24th weeks. 19 of the patients were treated with TT and 21 with CC.

Results: Both groups corresponded in age, BMI, and HbA1c. Three-month administration of TT resulted in a significant increase of serum T and SHBG levels, and a reduction in BMI, HbA1c, WC, TC, TG, that extended to the 6 th month. In the group treated with CC the monitored parameters showed the same dynamics.

In the group treated with TT we found significant improvement in all indicators of IIEF at the 3rd month. At the 6th month of and the overall satisfaction declined. In patients treated with CC it was found a significant improvement in all domains during the follow-up period, but without reaching statistical significance. We found significant improvement in physical and mental health and in quality of life at the 3rd month, that extended until the 6th month.

conclusions: The on time initiation of treatment, that increases testosterone levels, is essential for the metabolic disorders, erectile dysfunction and quality of life. Trials

of a longer duration are required to establish the benefits and risks of that therapy in patients with T2DM and Androgen Deficiency Syndrome.

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