

## AB086. Effects of testosterone replacement therapy on quality of life in patients with chronic kidney disease

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**Background:** We investigated the effect of testosterone replacement therapy (TRT) on the quality of life (QoL) of patients with chronic kidney disease (CKD) and tried to confirm the safety of TRT.

**Methods:** Forty male patients with grade III–IV CKD whose serum testosterone level is less than 350 ng/dL were consecutively enrolled in this study. The patients were randomly divided into two groups: group 1 patients were recommended to exercise and group 2 patients were treated with testosterone gel for 3. Before and after treatment, body mass index (BMI), vital sign, and hand grip strength was checked and serological tests and self-questionnaire such as SF-36, AMS, and IPSS were performed.

**Results:** Compared to baseline, there was no significant

difference in serum testosterone levels, scores of SF-36, AMS and IPSS, and grip strength in group 1 after 3 months. In group 2, significant increase in testosterone, Hb, and Hct were found, and the grip strength was significantly increased after TRT. Significant improvement in scores of SF-36, AMS, and IPSS was also confirmed after TRT. There was a significant difference in testosterone, Hb, Hct, grip strength, and scores of SF-36, AMS, and IPSS between the two groups after 3 months. In group 2, there was no statistically significant change in glomerular filtration rate after TRT. All patients in group 2 were satisfied and wanted to continue TRT.

**Conclusions:** TRT improves QoL as well as testosterone deficiency (TD) symptoms in the patients with moderate to severe CKD safely, and is expected to have a good effect on the improvement of anemia, which is common situation in CKD.

**Keywords:** Hypogonadism; testosterone; chronic kidney disease (CKD); quality of life (QoL)

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