

## QOL INVESTIGATION IN AGING MALES AT UROLOGY OUTPATIENT CLINIC; WHICH HAS A MORE INFLUENCE ON QOL , LOWER URINARY TRACT SYMPTOM (LUTS) OR LATE-ONSET HYPOGONADISM (LOH)?

### Hypothesis / aims of study

This study aims to investigate the influence of LUTS and LOH on QOL in aging male.

### Study design, materials and methods

Subjects consist of patients who visited the urology outpatient clinics of our university hospital and our branch hospital. They responded the questionnaires: International Prostate Symptom Score (IPSS), Aging Males' Symptom (AMS) Score, International Index of Erectile Function (IIEF5), Hospital Anxiety and Depression (HAD) Score, and SF-36. Free testosterone (fT) by fT kits (DPC, USA) was measured in the morning. The number of enrolled subjects was 190 (Age:  $54.7 \pm 9.1$  y.o.). The subjects older than 40 y.o were selected for this study. LUTS+ group and LUTS- group were defined as the subjects whose IPSS was greater than or equal to 8 points and as the subjects with IPSS less than 8 points, respectively. The numbers of LUTS+ and LUTS- were 83 and 107, respectively. LOH+ group and LOH- group were defined as the subjects whose fT level was less than 8.5 pg/ml and greater than or equal to 8.5 pg/ml, respectively. The numbers of LOH+ and LOH- were 85 and 105, respectively. We received the written informed consent from all the participants before their enrolling in this study. This study has the ethical permission from our institutional review board.

Statistical analysis: Two way( LUTS \* LOH) ANOVA was applied for the influence on QOL.

### Results

The prevalence of LUTS+ in age 40s, 50s, 60s was 19.3%, 49.4%, 61.5%, respectively. The prevalence of LOH+ in age 40s, 50s, 60s was 35.1%, 43.2%, 57.7%, respectively.

In age 40s, anxiety score defined by HAD, physical domain defined by AMS, and role- emotional (RE) and general health (GH) defined by SF-36 significantly influenced LUTS+ group. And bodily pain (BP) significantly influenced LOH+ group.

In age 50s, the LOH+ group had the significantly higher depression scores than the LOH- group. Role physical (RP), RE, social functioning (SF), mental health (MH) and vitality (VT) defined by SF-36 significantly influenced LOH+ group. The LOH+ group had the significantly higher social functioning (SF) domain score of SF-36 than the LOH- group. According to AMS score, mental, physical and sexual function's domains and IIFE score were not different between LOH+ and LOH- group or LUTS+ and LUTS- group.

In age 60s, anxiety and depression score defined by HAD and mental function's domain by AMS significantly influenced LUTS+ group. There were no statistical differences of erectile dysfunction (ED) prevalence between LOH+ and LOH- group or LUTS+ and LUTS- group.

### Interpretation of results

It is very interesting that LUTS brought about the lowering of the QOL in age 40s. In age 50s, many domains by SF-36 influenced the patients with LOH significantly more than those with LUTS. In age 60s, LUTS brought anxiety and depression in patients who visited urology outpatient clinics.

### Concluding message

We have to manage appropriate health supports (e.g. treatment of LUTS and androgen replacement therapy for LOH, etc) for raising the quality of life considering the aging.

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**CLINICAL TRIAL REGISTRATION:**  
**trials registry.**

**This clinical trial has not yet been registered in a public clinical**

**HUMAN SUBJECTS:** This study was approved by the institutional review board and followed the Declaration of Helsinki Informed consent was obtained from the patients.