Acute and Chronic Psychological Impact and Quality of Life of Patients Undergoing Orthognathic Surgery

Yu-Shu Huang, M.D. Ph.D.1,2, Jonathan YJ Chen, M.D.1, Yu-Ray Chen, M.D. 2*
1. Department of Child Psychiatry and Sleep Center, Chang Gung Memorial Hospital and College of Medicine, Taoyuan, Taiwan
2. Department of Craniofacial Research Center, Chang Gung Memorial Hospital and College of Medicine, Taoyuan, Taiwan

Introduction:
Orthognathic Surgery (OGS) is a surgical procedure for patients with dento-facial deformity. However, not all patients are satisfied with the outcome of surgery. The purpose of this research is to find out the acute and chronic psychological impact and quality of life of OGS.

Method:
There were 77 participants (male=32.5%, mean age=22.36±7.97 years) who received OGS (OGS group), and 32 that matched age and gender, the normal control group (male=40.6%, mean age=21.78±6.69 years) were enrolled. The data of five questionnaires were collected before OGS, one month after OGS, and 9 months after OGS. Questionnaires used were, the short form of the Derriford Appearance Scale (DAS24), Big Five Inventory (BFI), Hospital Anxiety and Depression Scale (HADS), Pittsburgh sleep quality index (PSQI), and 36-Item Short Form Health Survey (SF-36). Variables were presented as either mean ± standard deviation or frequency. Paired t-test and ANOVA were used to evaluate the pre-and post-surgery data.

Result:
Satisfaction after OGS was high (acute: 8.54±1.53 and long-term:8.73±1.40). BFI showed the extraversion had significant difference between the males and females in the OGS group (p=0.008). The DAS-24 showed many domains were improved in the appearance distress after OGS and persisted 9 months later. Before OGS, both groups had no difference in sleep, mood status and physical or mental function, except for the sleep efficiency. However, sleep latency (p<0.001) and role limitations due to physical health (p<0.001) exacerbated 1 month after OGS. Sleep latency was improved 9 months after OGS, but habitual sleep efficiency (p=0.009) and role limitations due to physical health (p=0.033) still showed significantly worse results than the control group.

Conclusion:
People received OGS due to their unfavorable appearance and the surgery could improve their self-esteem and make them feel normal. Through long-term assessment, we should pay more attention to sleep problems and role limitations due to physical health after OGS.