

**00254 Impact of Pain-related TMD on Quality of Life of Orthognathic Patients**

*Song Yi Lin<sup>1</sup>, Yap U-jin Adrian<sup>2</sup>, Fan Qiao<sup>3</sup>*

<sup>1</sup>National Dental Centre Singapore, <sup>2</sup>Ng Teng Fong General Hospital, <sup>3</sup>Duke-NUS Medical School

**Aims:** The objective of this study was to determine the impact of pain-related Temporomandibular Disorders (TMD) on the quality of life (QoL) of postoperative orthognathic patients.

**Methodology:** Subjects for this study were recruited from the dentofacial deformity patient registry of the National Dental Centre Singapore. Patients without craniofacial anomalies who received orthognathic surgery between March 2011 to December 2017 were invited to participate in the study. QoL was assessed using the Orthognathic Quality of Life Questionnaire (OQLQ), which consisted of the following 4 domains: facial aesthetics, oral function, awareness of dentofacial aesthetics and social aspects. Lower OQLQ scores indicated better QoL. The presence of pain-related TMD was evaluated using the validated Diagnostic Criteria for TMD (DC/TMD) Axis I TMD pain screener. Statistical analysis was done using two sample Wilcoxon rank-sum test and the Spearman correlation test, at significance level  $p < 0.05$ .

**Result:** A total of 127 patients (67 males, 60 females, aged  $25.7 \pm 6.2$  years) participated in the study. The mean global OQLQ score for all subjects was  $29.04 \pm 19.54$  (with minimum and maximum scores of 0 and 68 respectively). Post-operative orthognathic patients had the highest mean ( $9.95 \pm 7.8$ ) and maximum (29.0) score in the social aspect domain. Among the recruited subjects, 19% was found to have pain-related TMD. The mean global OQLQ score for patients with painrelated TMD was  $34.04 \pm 20.28$  and those without was  $27.87 \pm 19.54$ . The presence of TMD pain resulted in significantly higher scores for the oral function domain ( $p = 0.018$ ). A significant correlation was observed between oral function domain and DC/TMD pain screener scores ( $r = 0.179$ ,  $p = 0.044$ ).

**Conclusion:** Post-operative orthognathic patients still had some social concerns despite surgical correction of their dentofacial deformities. The presence of pain-related TMD significantly reduced the oral function aspect of QoL.