OSC30: The Effect of Temporomandibular Opening Index (TOI) Against Quadrant Numbers and Time Length of Posterior Teeth Loss

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Introduction: Temporomandibular disorder (TMD) is a dental or medical condition that affects mastication muscles or neighbouring temporomandibular joint including all of its tissue. A person suffering from TMD may feel pain on TMJ or facial region. An assessment for TMD is protrusion, lateral movement of mandible, and maximum opening of the mouth. Dysharmony on one or more of that assessment could be a predictor of TMD.

Objective: This study was done to understand the effect of quadrant number and the time length of posterior teeth loss against the Temporomandibular Opening Index (TOI).

Materials and Method: This is a cross-sectional study. Subjects were taken from Yogyakarta population. There were 40 subjects: 10 were losing two quadrants of posterior teeth for 12 months; 10 were losing one quadrant of posterior teeth for 12 months; 10 were losing two quadrants of posterior teeth for 6 months; and 10 were losing one quadrant of posterior teeth for 6 months. Passive and active mouth opening were measured, then TOI were calculated using a formula. The data were tested using Two Way ANOVA test, then tested with post hoc of Least Significant Differences (LSD) test. α = 5%.
Result: Means of TOI on all groups showed significant differences (p<0.05). Post hoc LSD test on all groups showed significant differences.

Conclusion: There is a relationship between the number of quadrant and time length of posterior teeth loss on TOI caused by TMD with signs of the reduction of active mouth opening.

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