

Comparison of the outcomes of different Class II treatments protocols using ABO-OGS, PAR index and IOTN

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Introduction & Aim: Various treatment modalities are used to treat skeletal Class II malocclusion. Treatment success should be evaluated to ensure that each case is finished ideally. Therefore, this study was aimed to compare the outcomes of different skeletal Class II treatment modalities.

Methods: A cross-sectional study was conducted using pre-treatment and post-treatment dental casts, photographs and radiographs of 135 subjects equally divided into Clark's Twin Block (CTB), Upper-first Premolars' Extraction (UPE) and Class II Elastics (C2E) treatment modalities. The post-treatment casts and radiographs were scored according to American Board of Orthodontics-Objective Grading System (ABO-OGS). Peer Assessment Rating (PAR) Index and Index of Orthodontic Treatment Need (IOTN) were assessed using pre-treatment and post-treatment casts. Wilcoxon-Signed Rank test was used to compare the pretreatment and post-treatment malocclusion scores. Mann-Whitney U test and Kruskal-Wallis test were used to compare the scores among different treatment modalities. Level of significance was kept at $p \leq 0.05$.

Results: The ABO index indicated that cases treated with C2E had the greatest incidence of treatment failure (40%) followed by CTB (33.3%) and UPE (20%). The changes in the PAR scores indicated a significant ($p < 0.001$) improvement for CTB (93.2%), UPE (90%) and C2E treatment (87.2%). Similarly, changes in the pre-treatment and post-treatment IOTN-DHC and IOTN-AC scores were significant ($p \leq 0.001$) for all the treatment modalities.

Conclusion: All Class-II treatment modalities show significant changes after orthodontic therapy using different indices. However, treatment with C2E has shown less improvement than the others.

Biography

Abdul Rahman Khan is currently working as an Assistant professor in Aga Khan University Hospital, Pakistan

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