



CFAO GRADUATE STUDENT POSTERBOARD ABSTRACTS

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Dental and Skeletal Changes Associated with the Damon System Philosophical Approach

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Objectives: To compare the dentoalveolar changes produced by the Damon system's treatment philosophy to traditional orthodontic treatment techniques.

Methods: An electronic search in three major databases was completed: Cochrane, PubMed, and EMBASE on March 17th, 2017. Randomized controlled trials, prospective and retrospective controlled clinical trials were included in this systematic review. The quality assessment of individual studies was done using two different tools: The Cochrane Risk of Bias Assessment Tool (RTCs) and The Methodological Index for Non-Randomized Studies (MINORS) (non-RCTs).
Results: Seven studies were included for this qualitative analysis. Six studies compared the Damon system to various types of conventional (non self-ligating bracket) system as a comparison group. One study used a quad helix as a comparison for a few months before a full bonding appointment with conventional brackets. The majority of studies found an increase in maxillary intercanine, interpremolar, and intermolar distance after the treatment in both the Damon and comparison groups. Yet, all studies concluded that there is no significant difference in the final transverse dimension between two groups. One study also found that the transverse expansion was achieved mainly by tipping movement of posterior dentition, and a decrease in the posterior buccal bone area was evident in both groups after treatment.

Conclusion: There is not enough evidence to support the claim that the Damon system allows additional arch expansion with better tipping control than with traditional techniques.