

OSC8: Comparison of Maximum Occlusal Bite Force in New Complete Denture with Denture Adhesives: A Preliminary Study

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Aim: Green denture adhesive is a new formulation for denture adhesive which incorporates 10% of starch as its filler. In vitro testing results revealed that this product has superior properties than the existing commercial denture adhesive. Therefore, the purpose of this study was to compare the

maximum occlusal biting forces (MOBF) between complete denture subjects without denture adhesive and with two different type of denture adhesives (Polident[®] and Green denture adhesive).

Materials and Methods: This is a crossover, prospective study. Ten edentulous subjects with new maxillary and mandibular complete dentures were involved in this study (5 males and 5 females, mean age: 62 year-old). Subjects had been wearing the denture less than a year. The MOBF was measured using pressure sensitive sheet known as Prescale[®] film, where all subjects were asked to perform maximum clenching on the film. The measurement was made before the application of denture adhesive and 10 minutes following the application of Polident[®] and Green denture adhesive respectively. Data were statistically analysed using repeated measure ANOVA.

Results: Both denture adhesives significantly ($p < 0.05$) improved MOBF in complete denture wearers. Polident[®] showed a slightly higher MOBF than Green denture adhesive. However, no significant difference seen between the two denture adhesives.

Conclusion: The usage of denture adhesives improved the biting performance of complete denture however there was no difference in the outcome between novel Green denture adhesive and Polident[®].

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