

Title :

Comparative study of self- and light-curing resin for attaching a magnetic assembly inner the denture base resin

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Abstract :

Generally, the magnetic assembly was attached inner the denture base resin using self-curing resin. However, it is often difficult to demonstrate an enough retentive force for the air gap between keeper and magnetic assembly by the polymerization shrinkage. In this study, we compared the retentive force using self-curing resin and low-shrinking light-curing resin.

Ninety magnetic assemblies were placed on the keeper fixed by the resin and attached inner resin blocks using self- or light-curing resin following three groups: (1) Unifast III (n=30), (2) Unifast LC (n=30), and (3) G-FIX (n=30). The retentive force between keeper and attached magnetic assemblies were analyzed.

Universal testing machine recorded that the magnetic assemblies attached by G-FIX group was the highest score. Our result suggest that low-shrinking light-curing resin may suppress lifting the magnetic assembly from keeper by the polymerization shrinkage.

Therefore, G-FIX is a promising dental material for attaching the magnetic assembly inner the denture base resin.