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Periodontal plastic surgery

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Periodontal plastic surgery is designed to restore the normal function and appearance of the gum, periodontal ligament and the bone that support the teeth, increase their life expectancy and usefulness. Through it, we can remove the damaged tissue caused by the periodontal disease and reconstruct. Terminal way is considered to restore the normal function. We begin first with conservative treatment and enhancing the oral hygiene and behavior and at times when conservative treatment isn't enough we do surgery. We detect the predisposing factor and precipitating factor to avoid the unwanted and increasing the awareness for early detection, seeking the medical advice and early management. Also, we detect different methods of management and when to use each one, time of recovery and post operative advice. In brief, we will talk about periodontal diseases detection, avoiding, predisposing and precipitating factors and management.

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Incremental layer shear bond strength of low-shrinkage resin composites under different bonding conditions

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Statement of Problem: Silorane-based resin composites do not form an oxygen-inhibited layer due to the cationic ring opening polymerization which is insensitive to oxygen. This could reduce the bond strength between the successive Silorane composite increments. Furthermore, the repair bond strength of conventional methacrylate-based composite to an already existing Silorane-based composite can be impaired due to the difference in chemical composition.

Aim: 1) To determine the Shear bond strength of a consecutive layer of Silorane-based composite to Silorane-based composite, and Silorane-based composite to methacrylate-based composite under various aging conditions and with or without the use of an adhesive resin. 2) To compare these results to another methacrylate-based low-shrinkage composite material and a conventional methacrylate-based composite.

Materials & Methods: Two brands of low-shrinkage composites were tested, a Silorane-based composite; Filtek Silorane (3M/ESPE) and a methacrylate-based composite; Aelite LS Posterior (Bisco) as well as a conventional methacrylate-based composite material; Filtek Z250 (3M/ESPE). Substrate discs were fabricated and second layers were adhered to them either immediately or after 2 or 4 weeks of aging and with or without an adhesive resin. The shear bond strengths were measured and failure modes were evaluated.

Results: The incremental bond strength of a consecutive layer of Silorane to Silorane-based composite was not significantly different from that of a methacrylate-based composite. In addition, repairing a Silorane-based composite with a methacrylate-based composite significantly reduced the bond strength. Moreover, Aelite showed lower incremental bond strength than that of Z250 and Silorane but the use of adhesive significantly improved the bond strength.

Conclusion: Absence of an oxygen-inhibited layer did not affect the bond strength of a consecutive layer of the Silorane-based composite. However, to gain adequate bond strength, a Silorane-based composite should be repaired using a Silorane based adhesive. The use of an appropriate adhesive in the repair of old composite resins is crucial for high incremental bond strength provided that the materials are compatible.

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