

The behaviour of dental filling materials used for abfraction lesions

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Abfraction lesions are non carious cervical lesions (NCCL) of tooth wear localised in tooth cervical area. Clinically described as triangular lesions with the sharp end toward the tooth pulp, these lesions are frequent in teeth from the curve area of the dental arch, like premolars and canines, but they appear also in incisives, and molars. The mechanism of action for abfraction lesions implies a detachment of the enamel rods submitted to the tooth crown flexion movements under occlusal forces.

Dental materials used to rehabilitate these type of lesions include glass ionomer cements (GIC), resin modified glass ionomer cements (RMGIC), fluid composite resins (FCR). These materials are used single or in combination with each other, like sandwich filling with RMGIC and FCR. These type of dental fillings has a good resistance in time, preventing the lesion extension. The problems that could appear are defects of the filling surface and marginal colorations.

The study evaluated the clinical performance of adhesive restorations of resin modified glass-ionomer cements (RMGIC) compared with resin composite (RC), and RMGIC liner base laminated with a resin composite in non carious cervical lesions (NCCL) on a period of 24 months. All types of restorations had similar survival rates and acceptable clinical performance.

Key words: abfraction lesion, resin modified glass ionomer cements, resin composite, tooth filling