

树脂直接修复后边缘密合性的影响因素分析

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【摘要】目的 探讨树脂直接修复洞型边缘密合性的影响因素, 为临床操作提供指导。**方法** 取新鲜离体磨牙 40 颗 ($N_1=40$), 制备近中面(或远中面)长方形窝洞后随机分为 8 组 ($n_1=5$), 采用正交实验评价边缘精修方法(A)、粘接剂(B)和复合树脂(C)对微渗漏的影响。另取新鲜离体上中切牙 10 颗($N_2=10$), 随机分为 MT、KS 两组 ($n_2=5$), MT 组 MANI TF-12EF 车针处理釉质表面, KS 组 KaVo SONICflex 气动超声工作尖处理釉质表面, 用于粗糙度检测。**结果** 影响微渗漏的因素主次关系为: 复合树脂>粘接剂>边缘精修方法。最优组合为 A: 气动超声工作尖精修釉质边缘, B: ENA bond SE 粘接剂, C: ENA HRi 复合树脂。KS 组表面粗糙度显著小于 MT 组 ($P < 0.001$)。**结论** 边缘精修方法、粘接剂和复合树脂是影响树脂直接修复洞型后边缘密合性的因素。

【关键词】 边缘密合性 微渗漏 气动超声 复合树脂 粘接剂

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Analysis on the factors affecting marginal adaptation of composite resin-restored dentinal cavities

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【Abstract】Objective To explore the factors affecting marginal adaptation of direct resin restoration and to provide the guidance for clinical treatment. **Methods** Forty fresh extracted molars ($N_1=40$) were selected and rectangular cavities were prepared in the mesial or distal surface. Then all forty molars were randomly divided into eight groups ($n_1=5$). According to the orthogonal experiment, the margin finishing method (A) and the effects of bonding agent (B) and composite resin (C) on micro leakage were evaluated. In addition, ten fresh extracted upper middle incisors ($N_2=10$) were selected and randomly divided into two groups ($n_2=5$), MT and KS. The enamel surfaces of Group MT and Group KS were treated with MANI TF-12EF bur and KaVo SONICflex pneumatic ultrasonic working tip respectively for roughness detection. **Results** The primary and secondary factors affecting micro leakage are composite resin, followed by bonding agent and then the margin finishing method. The optimal combination is A (KaVo SONICflex pneumatic ultrasonic working tip), B (ENA bond SE bonding agent) and C (ENA HRi composite resin). The surface roughness of Group KS is less than that of Group MT significantly ($P < 0.001$). **Conclusions** Margin finishing method, bonding agent and composite resin are the main factors affecting marginal adaptation of direct resin restoration

【Key words】 Marginal adaptation Micro leakage Pneumatic ultrasonic Composite resin Bonding agent