Efek ketebalan komposit flowable pengganti dentin terhadap kebocoran tepi dinding gingiva tumpatan resin komposit proksimal = The influence of flowable composite thickness as intermediate layer into microleakage of gingival wall on proximal composite restoration

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Abstrak

Kebocoran mikro resin komposit proksimal seringkali terjadi pada dinding gingiva. Tujuan studi ini mengevaluasi efek komposit flowable sebagai lapisan antara untuk mengurangi kebocoran mikro pada dinding ginigva. Metode: 30 gigi premolar RA dipreparasi berbentuk boks, restorasi dilakukan pada kelompok 1 dengan resin komposit packable saja (kontrol). Kelompok 2 dengan RK flowable sebagai lapisan antara, setebal 1 mm dan komposit packable di atasnya. Kelompok 3, seperti kelompok 2 namun RK flowable sebagai lapisan antara setebal 2 mm. Setelah dilakukan siklus termal, kebocoran mikro diukur dari penetrasi zat warna metilen biru 1%. Analisis statistik dengan uji Kolmogorov-smirnov. Hasil: Kebocoran mikro pada kelompok 1 berbeda bermakna dengan kelompok 2 dan 3. Namun tidak terdapat perbedaan bermakna pada kelompok 2 dan 3 ($p<0.05$). Kesimpulan : Tingkat kebocoran mikro dinding gingiva paling sedikit pada restorasi RK proksimal dengan aplikasi RK flowable pengganti dentin setebal 1 mm namun, ketebalannya tidak memiliki pengaruh terhadap tingkat kebocoran mikro secara statistik.
.....Microleakage of composite restoration in proximal often occurs on gingival wall. The purpose of this study is to evaluate the influence of flowable composite as intermediate layer to reduce microleakage on gingival wall. Materials and Method: Thirty whole-extracted upper premolars were devided into 3 groups. Within a box-like cavities, the first group is restored with packable composite only. Group 2 were restored with flowable composite with 1 mm thickness then restored with incrementally packable composite. Group 3 were restored like group two with flowable composite thickness were 2mm. After thermocycling, the penetration of 1% methylene blue was investigated along the gingival wall. The data were analyzed with Kolmogorov-smirnov test. Results: There were significant difference between group 1 with group 2 and 3. No significant difference found between Group 2 and Group 3. Conclusion: Flowable composite as intermediate layer has influence in reducing the microleakage of gingival wall on proximal composite restoration. Nonetheless the thickness of flowable composite has no influence.