بررسی آزمایشگاهی تاثیر چهار روش ترمیم مختلف برگپ پالپال ترمیم های کلاس I کامپازیتی

دکتر نسرین سرابی*#، دکتر فروزان رسولی**

* استادیار گروه آموزشی ترمیمی و زیبائی دانشکده دندانپزشکی و عضو مرکز تحقیقات دندانپزشکی دانشگاه علوم پزشکی مشهد

** متخصص ترمیمی و زیبائی

تاریخ ارائه مقاله : ۸۴/۹/۲۸ – تاریخ پذیرش : ۸۵/۲/۸

Title: Laboratory comparison of effect of four different liners on pulpal gap in class I composite restorations

Authors:
Sarabi S. Asistant Professor*#, Rasooli F. Private Practice
Address:
Dept of Operative Dentistry, School of Dentistry and Dental Research Center of Mashhad University of Medical Sciences.

Introduction:
Today, use of composites in tooth color cosmetic restorations has been increased and many developments have been showed up in physical characteristics. Unfortunately, problems such as polymerization contraction and the resulting gap formation in different parts of the cavity, has led to restoration failure. The purpose of this study was to evaluate the effect of four different methods of restoring teeth on pulpal gap of class I composite restorations.

Materials & Methods:
60 extracted human premolars were selected. In all samples, a deep class I cavity preparation was made. The samples were divided into four groups. In each group containing 15 samples, a different liner was applied.

Group 1 : Dentin bonding
Group 2: Dycal and dentin bonding
Group 3: Dentin bonding agent and flowable composite
Group 4: Glass-ionomer and dentin bonding

All cavities were restored using light-cured Z-100 composite resin (3 M), using oblique incremental technique. Finally, for evaluation of the pulpal gap, the samples were observed under scanning electron microscope. The analysis was done with One Way ANOVA and DUNCAN test.

Results:
1- There was a significant difference in the amount of pulpal gap between the four froups ($\alpha = 0.05$).
2- The greatest amount of gap was related to group 1 (dentin bonding group) and the least amount of gap was related to group 3 (flowable composite group), followed by group 2 (Dycal group).
3- Group 1 and group 4 were not different in the amount of pulpal gap significantly.
Groups 2,3,4 were not different in the amount of pulpal gap, either. The only significant difference observed was between group 1 and group 2, as well as group 1 and group3.

Conclusion:
1- In deep composite cavities, use of flowable composites under the composite restorations as a liner is suggested.
2- Use of dycal in deep cavities as a base is also recommended due to its partially agreeable outcomes in our study.

Key word:
Composite, pulpul gap, liner.

 # Corresponding Author: nasrin.sarabi@gmail.com

Journal of Dentistry. Mashhad University of Medical Sciences, 2006; 30: 233-40.

چکیده

مقدمه:

امروزه کاربرد کامپازیتها در ترمیم های زیبایی همرنگ دندان به طور روزافزونی گسترش یافته و در بهبود خصوصیات فیزیکی این مواد پیشرفتهای زیادی حاصل شده، اما متاسفانه بعضی مشکلات کامپازیتها از جمله انقباض پلیمریزاسیون و بدنبال آن گپ در

مولف مسؤول، آدرس : مشهد، دانشکده دندانپزشکی، بخش ترمیمی و زیبائی، تلفن: ۱۷- ۸۸۲۹۵۰۱- ۰۵۱۱