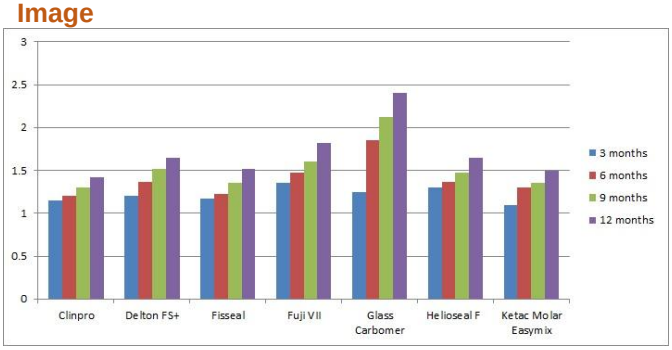
Effectiveness of seven types of sealants: retention after one year

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Abstract (300 word limit)

Statement of the Problem: Nowadays there is a shift from treatment to prevention of caries thus resulting in conservation of tooth structure. There are two main strategies used to deal with deep pits and fissures; topical fluoride application, and pit and fissure sealants. Topical fluoride application is more effective in smooth surfaces of the tooth, while pit and fissure sealant is used successfully in the occlusal surface. The aim of this study is to determine the retention rate and pattern of seven pit and fissure sealants placed on the occlusal surface of newly erupted first permanent molars after three, six, nine, and twelve months. Materials and methods: 70 children with the age group 8-10 years were enrolled in this study. The inclusion criteria for enrolment in this study were: good oral hygiene, cooperative children with no caries in their teeth, and fully erupted first permanent molar. The exclusion criteria were: bad oral hygiene, uncooperative, children having caries in their teeth, and mentally challenged children. They divided into seven groups (m=10) according to the type of the sealant. The four permanent first molar of each children were sealed. The sealant was applied according to the manufacturers' instructions. Clinical evaluation was carried out at three, six, nine, and twelve months. The clinical observations were divided into three categories; TR (total retention), PR (partial retention), and TL (total loss). Results: Resin based sealant performed better than glass ionomer based sealant except for Ketac Molar Easymix. At three months there was no significant difference among all the tested groups (P>0.05), while at six, nine, and twelve months, there was a high significant difference (P<0.001). Glass Carbomer sealant showed the least retention rate at all intervals. Conclusion and clinical significance: with exception of Ketac Molar Easymix, resin based sealers performed better than glass ionomer based sealers. Proper application of pit and fissure sealant will decrease the chance for caries development in newly erupted teeth

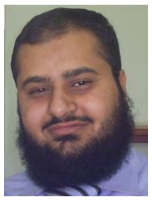
Image



Comparison of the mean scores of each group at the different time intervals

Recent Publications (minimum 5)

1. Mohammed Hassan A, Ali Goda A, Baroudi K (2014) The effect of disinfecting agents on bond strength of resin composites. International Journal of Dentistry 2014:231235.
2. Hassan AM, Nabih SM, Mossa HM, Baroudi K (2015) The effect of three polishing systems on surface roughness of flowable, microhybrid, and packable resin composites. Journal of International Society of Preventive & Community Dentistry 5:242-247.
3. Mahross HZ, Mohamed MD, Hassan AM, Baroudi K (20015) Effect of cigarette smoke on surface roughness of different denture base materials. Journal of Clinical and Diagnostic Research 9:39-42.
4. Mossa H, ElKhatat E, Hassan AM, Baroudi K, Beshr K (2016) Effect of hyperbaric oxygen profiles on bond strength of repaired composite resin. Journal of International Society of Preventive & Community Dentistry 6:70-74.
5. Ahmed Mohammed Hassan., et al (2016) Effect of Air Abrasion Techniques on Marginal Adaptation of Class V Cavity. EC Dental Science 6.2: 1288-1296
6. Al-Sabri FA, Elmarakby AM, Hassan AM (2017) Attitude and knowledge of isolation in operative field among undergraduate dental students. European Journal of Dentistry 11:83-88.
7. Ahmed M H A (2017) fracture reattachment-a simple technique to restore coronal fracture. Advances in Dentistry and Oral Health 3:555615.



Biography

Ahmed Mohammed Hassan has completed his PhD at the age of 31 years from Al-Azhar University, Egypt. He is the director of undergraduate operative program in Alfarabi colleges for dentistry and nursing, Riyadh, KSA. He has supervised a master thesis submitted to Al-Azhar University. He has published more than 7 papers in reputed journals and has been serving as a reviewer in esteemed international journals. He has worked in several private and governmental universities in Egypt, Libya and Saudi Arabia.

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