CARRYING OUT DIRECT COMPOSITE RESTORATION OF TOOTH A USING ADHESIVE FOURTH GENERATION SYSTEMS

Ravshanova (Norboyeva) Ziyoda
Samarkand State Medical University

Annotation. There are a huge number of adhesive systems on the dental market, which put doctors in a difficult position when choosing an adhesive system for their work. In clinical practice, there are 8 generations of adhesive systems. This article discusses the features of the fourth generation adhesive, which is the gold standard in dentistry; the action of this system is based on the removal of the “blurred word”. This system has a high strength of hell in wet and dry conditions, eliminating the sting of post-operative sensitivity. The treatment of dental caries remains a pressing issue, evidenced by the wide range of materials and techniques used in everyday dental practice to restore tooth form and function. For the purpose of restoration, light-curing composite materials are used, which without an adhesive system

Keywords: Adhesive means , composite, filling material, Optibond , hybrid.

Composite material is not used. An example of a 4th generation adhesive system provides the highest adhesion of the Erca OptibondFL composite (Kerr). It is believed that Optiband-L. (Ket) obess dentin. “OptibondFL is a two-component total etching adhesive system, including a component (etchant gool, primer, gel), with the help of which adhesion of the material to the tooth surface is achieved.

Adhesive means a sticking substance." The main criterion for effective adhesion strength of materials. Currently, high-quality fixation of materials has been achieved using an adhesive joint system. Ensuring tightness at the interface between the composite filling material and the sealant is the most important condition for providing a long-lasting restoration. The role of dentinal adlenia is not to ensure the retention of the filling, but also its integrity. in the prevention of infection of dentin and pulp, and the development of postoperative feelings

OptibondF1 consists of three successive stages:

Etching of hard tooth tissues

Applying primer Applying adhesive

The use of OptibondFL involves an etching technique. For etching, istil gedi containing orthophosphoric acid (30-37%). When etching. c the opening of dentinal tubules occurs due to the dissolution of demineralized dentin and the removal of “smeared words”, creating a microrelief on the surface of enamel, dentin and cement, which facilitates the penetration of the adhesive system and hard tissues of the tooth and the formation of a full-fledged otibrid word “Smear” layer is a layer on the surface

of dentin, which is formed as a result of preparation and contains 31/843

It contains denatured collagen fibers, fragments of hydroxvanatite crystals and dentinal tubules, components of oral fluid, and microorganisms.

The “hybrid” layer is a structure formed by collagen fibers and forms the dentin microrelief. The formation of hybrid words is ensured by the structures of intertubular dentin, and in deep carious cavities, adhesion to dentin is provided by resin processes in the dentinal tubules.

Primer (dentin conditioner) is a mixture of hydrophilic monomers that penetrate wet dentin, saturating it and forming a hybrid layer. It is introduced into the cavity using an applicator. It should act on the dentin for 30 seconds. It is not recommended to forcefully rub the primer into the enamel surface, as this may cause damage to the etching pattern. After this, excess solvent must be carefully removed using a stream of compressed air. Please note that the primer does not polymerize.

The adhesive is hydrophobic methacrylates, providing a composite with a hybrid layer and tooth enamel. Adhesion is applied using a brush. Penetration of the adhesive of demineralized dentin treated with a primer leads to the formation of hybrid words, and leakage of open dentin tubules leads to the formation of polymer samples, thereby ensuring sealing.

The 4th generation adhesive system for direct composite restoration is of practical interest. It can be used in various clinical situations: when carrying out direct restoration of any defects, and processing of hard tooth tissues before fixing crusts, to prevent the occurrence. increased sensitivity of teeth.

Purpose of the study. To evaluate the clinical effectiveness of universal oral dentition in the treatment of dental caries. adhesive system Optibond FLa tex-M Materials and the name of Abuali ibn non-following. Patients aged from 25 to 40 years old came to the clinical base of the Department of Therapeutic Dentistry of TSMU with complaints of short-term pain from chemical, thermal and mechanical irritants, which passed immediately after the irritant was eliminated. After conducting diagnostic examination techniques, a diagnosis of caries of enamel, dentin, and deep caries was made. Conducted with hygienic paste without fluoride (CleanPolish). We provided the isolation dam with a rubber dam. Under application and mandibular anesthesia, carious cavities were prepared under the control of a caries marker. At the treatment stage, the 4th generation adhesive system “OptibondFL” was used. CharizmaClassik, Filtek 750, Herkulite were used as composite materials. According to the instructions for using OptibondFL, adhesive preparation was carried out with medicinal treatment of the cavity with chlorhexidine 2% for 60 seconds. and blotted the dots with chlorhexidine. Next, the etching gel “GelEtchanto” based on 37% orthophosphoric acid was applied to the open surface of the dentin. We etched the enamel for 30 seconds, and the dentin for 15 seconds and washed thoroughly to completely remove the etching gel. Taking

into account the technology of the wax dentin, the dentin was slightly dried out. After acid etching, using an applicator, one drop of primer was applied to the surface of the enamel and dentin using childish rubbing movements for 15 seconds, and excess solvent was carefully removed with a stream of compressed air, drying out the dentin. Please note that the primer does not polymerize. Shake the bottle with OptibondFLu adhesive with a whisk onto the etched and primed enamel and dentin surfaces and apply the adhesive using rubbing movements for 15 seconds.

The adhesive tiles were inflated with a weak stream of air and polymerized for 20 seconds. The advantages of the 4th generation adhesive system are that it provides the greatest adhesion force between the composite enamel and dentin. It is the “gold standard” among all dental adhesives.

Results of non-following. The results obtained indicate the absence of postoperative sensitivity. During the period of all control points, no violations of redness were detected during radiography and fluorescent diagnostics. In the treatment of caries, the OptibondFL adhesive system has shown high clinical effectiveness. Good qi adaptation was observed during control periods of observation.

Overdrying of the dental surface leads to the collapse of collagen windows and significantly worsens the quality of adhesion of the filling material. The dentin surface is ensured when using wet bonding due to the deep infiltration of adhesive components into the dentin structure and the high homogeneity of the hybrid layer. The main purpose of using dentin adhesive is to ensure tightness at the border of the dentin filling and prevent micro leaks. pulp from microbial invasion.

Conclusions. Recently, adhesive systems of 1.2 and 3 generations have not been used, since patients, after using them, complained of increased sensitivity and loose fillings. Most in demand in dentistry, the fourth guarantees high adhesiveness logical practice adhesive References:

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