

GLASS IONOMER CEMENTS USED IN DENTISTRY.

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Abstract. Glass ionomer cement is one of the widely used materials in dentistry. It is mainly used in dental treatment, filling and prosthetic procedures. The unique properties and advantages of this material make it very important in dental practice. The main composition of glass ionomer cement consists of a mixture of glass powder, polymer and acid, which offers many advantages in dental procedures.

Key words: glass ionomer cement, tooth enamel, dental, dentitis, dentistry, polymer, orthodontic procedures, prosthetics.

СТЕКЛОИОНОМЕРНЫЕ ЦЕМЕНТЫ, ИСПОЛЬЗУЕМЫЕ В СТОМАТОЛОГИИ.

Аннотация. Стеклоиономерный цемент является одним из широко используемых материалов в стоматологии. В основном он используется при лечении зубов, пломбировании и протезировании. Уникальные свойства и преимущества этого материала делают его очень важным в стоматологической практике. Основной состав стеклоиономерного цемента состоит из смеси стеклянного порошка, полимера и кислоты, что дает множество преимуществ при стоматологических процедурах.

Ключевые слова: стеклоиономерный цемент, зубная эмаль, стоматология, стоматит, стоматология, полимер, ортодонтические процедуры, протезирование.

One of the first advantages of glass ionomer cement is its biocompatibility. This material adapts well to the tissues of the body and does not cause allergic reactions. Also, glass ionomer cement bonds well with tooth enamel and dentin, which ensures its long-term performance.

Another important feature of this material is its resistance to acid and mechanical stress.

These properties are very important when using glass ionomer cement as a filling material in dentistry. Another important advantage of glass ionomer cement is its function as a source of fluoride. Fluoride plays an important role in strengthening tooth enamel and preventing caries.

Through the use of glass ionomer cement, the teeth are enriched with fluoride, which improves their health. Also, due to the specific properties of glass ionomer cement, it is close to the natural color of the teeth and gives aesthetically satisfactory results. The use of glass ionomer cement is very wide in clinical dentistry. It is mainly used in the treatment of dental caries, filling teeth, making temporary fillings and prostheses, glass ionomer cement is also used in orthodontic

procedures, as well as in the installation of orthodontic appliances. This material is widely used by many dentists and for the convenience of patients. The process of making glass ionomer cement is very simple. First, glass powder and polymer acid are formed. The three mixtures are mixed until a uniform mass is formed. Before applying the prepared cement to the tooth, the tooth is cleaned and the liquid process of buying cement is carried out. It takes a few minutes for the cement to harden, a process that is improved with a garden cement tooth. There are also disadvantages of glass ionomer cement. An important one of them is one of the most important in the past in relation to mechanics. This is especially important in the back of the teeth, that is, molars and premolars, the color of the glass ionomer cement itself and may deteriorate over time help, modern help can help this.

There are different types of glass ionomer cement. These include ordinary glass ionomer cement, high strength glass ionomer cement, and modified glass ionomer cement. Each type has its own characteristics and is designed to perform different tasks in dental practice. For example, high-strength glass ionomer cements have strong mechanical properties and are used for painless and long-lasting fillings. When talking about the future of glass ionomer cement, it is expected to develop and improve together with new technologies. Modern research is focused on the development of new formulas of glass ionomer cement, which helps to increase its resistance to mechanical stresses and improve its aesthetic appearance. Also, with the help of new materials and technologies, the use of glass ionomer cement can be further expanded.

Glass ionomer cement adapts well to body tissues and does not cause allergic reactions. It is a safe material for patients. It is very important for patients, because during dental procedures, the impact of the material on the body should be minimal. This material contains fluoride, which plays an important role in strengthening tooth enamel and preventing caries. Fluoride improves dental health, which ensures long-term dental health. The presence of fluoride strengthens tooth enamel and slows down the development of caries. Glass ionomer cement bonds well with tooth enamel and dentin, which ensures its long-term performance. This bond is strong and stable and ensures that the material stays in place, which is important for maintaining healthy teeth. Glass ionomer cement is close to natural tooth color and gives aesthetically satisfactory results. This is especially important for front teeth, as patients care about appearance. A natural appearance increases the confidence of patients as a result of dental procedures.

The process of preparation and application of glass ionomer cement is simple and quick, which helps to perform dental procedures efficiently. Ease of use saves time for dentists and provides convenience for patients. Although it has some disadvantages, glass ionomer cement can withstand strong mechanical stresses, which is important for its use as a filling material.

The strong mechanical properties of this material allow it to be used in various dental procedures. Glass ionomer cement is ideal for temporary restorations because it hardens quickly and is easy to remove. This makes it easier for patients to perform temporary procedures and gives dentists additional opportunities. This material helps maintain the natural state of teeth and reduces tooth damage. Maintaining a natural state ensures long-term dental health and improves the oral health of patients. The effectiveness and safety of glass ionomer cement has been confirmed by many clinical studies, which ensures its wide use by dentists. Research results show the reliability and effectiveness of this material, which is important information for dentists. These advantages make glass ionomer cement a widely used and effective material in dentistry. Many positive aspects of glass ionomer cement make it an important material in dental practice and provide comfort for patients.

Conclusion:

In short, glass ionomer cement plays an important role in dentistry. Its biocompatibility, function as a source of fluoride, aesthetic appearance and wide application make it an indispensable material in dental practice. Considering the advantages and disadvantages of glass ionomer cement, dentists use this material to provide the best results for their patients. In the future, the development and improvement of glass ionomer cement together with new technologies is expected to provide more effective and convenient procedures in dentistry.

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