RUBBER DAM FOR DENTAL TREATMENT

Afzali Dawood

Student, Volgograd State Medical University, Russia, Volgograd

Faridagai Elmira

Student, Volgograd State Medical University, Russia, Volgograd

Seyedjafari Mirhadi

Student, Volgograd State Medical University, Russia, Volgograd

Amad Fatemeh

Student, Volgograd State Medical University, Russia, Volgograd

Safari Mohammad Hossein

Student, Volgograd State Medical University, Russia, Volgograd

Alsarhan Ahmad Jumah Mohammad

Student, Volgograd State Medical University, Russia, Volgograd

A modern method of isolating the surgical field and ensuring the safety of the patient and doctor in dental practice is a rubber dam. The rubber dam technique was first introduced into dentistry by the American dentist S. C. Barum in 1864.

A rubber dam is needed to protect the patient’s oral mucosa from aspiration of microparticles from the respiratory tract during the preparation of a carious cavity, to prevent oral fluid from entering the surgical field, to protect adjacent teeth and soft tissues of the oral cavity from injury.

The rubber dam consists of a latex or rubber plate with markings, clamps, a frame, a perforator, forceps for applying the clamp and special floss.

Rubber dam can be:

1. light beige: due to its transparency, it is used mainly in endodontic treatment. It is not advisable to use when working with composites (poor image of contours)

2.brown or dark gray: good color contrast, eliminating light reflection

3.Green: Pleasant, friendly, soothing color tone produces good contour color contrast, no iris effect under fluorescent light, smells like mint, making it pleasant for patients

Using a puncher, holes are made in the curtain. The thickness of the latex plate varies from 0.13 to 0.39 mm and depends on which group of teeth the rubber dam will be applied to.

The latex curtain is fixed to the frame. The latex is cut off near the neck of the tooth. Floss is threaded into the interdental spaces to ensure a tight fit of the plate to the tooth and a more

reliable seal. The tooth needed for treatment is clamped with a clasp. There are two types of clasps: a clasp with “wings” and a “wingless clasp.” “Wings” on the clasps provide ease of application of the rubber dam. Wingless clasps have rounded and short sides.

There are the following types of rubber dam:

1. Optidam (OptiDam) consists of two latex plates, with the help of which good insulation from moisture of any tooth is possible. OptiDam Posterior – to protect premolars and molars; OptiDam Anterior – for the frontal group of teeth. Optidam has the advantages: quick and easy assembly and the ability to quickly install in the oral cavity.
2. Rubber dam is a set of devices for reliable isolation of the working field. The latex scarf is fixed to the teeth with special metal clips or valves. The rubber dam ensures absolute isolation of the working field from oral fluid and prevents contamination of tooth tissue by pathogenic microorganisms.
3. Opal Dam is a flowable rubber dam in the form of a low-viscosity gel. It is a light-curing barrier that cures within 20 seconds. The gel flows into the interdental spaces and protects the mucous membrane from chemical and mechanical damage. Advantages: does not crumble, adheres well to the enamel and marginal gum and is easily removed. Compared to other types, Opal Dam is convenient to use for restorations on extracted and twisted teeth, but at the same time it does not provide protection for the mucous membranes of the cheeks, lips and tongue.

Disadvantages of rubber dam:

-Loss of axial landmarks during tooth cavity preparation

- Possible injury to the interdental papilla

-Greater requirements for radiography

-Possible allergies

Conclusion. The highest quality way to isolate a tooth from oral fluid is a dental dam. This is due to complete separation of the tooth not only from oral fluid, but also from adjacent hard and soft tissues, ease of use and favorable conditions for both the doctor and the patient.

Bibliography:

1. Cofferdam: educational manual / L. I. Paliy, G. I. Boyko, F. R. Tagieva. – Minsk: BSMU, 2023. – 24 p.

2. Kryukova A.V. Dental health of students // Advances in modern science. 2013. No. 9. P. 54.

3. Khafizov I.R. Providing technological stages of restoration using various matrix systems and working field isolation systems: educational manual for students / I.R. Khafizov, F.A. Khafizova, A.R. Fasakhov. - Kazan: Kazan. fed. univ., 2021. - 43 p.