

Darvish Basseri Amir Hossein

DIFFERENT METHODS OF LOCAL ANESTHESIA IN PEDIATRIC DENTISTRY

Scientific advisor Ph. D, Associate Professor Burak Zh. M.

Department of Pediatric Dentistry

Belarusian State Medical University, Minsk

Dental treatment of a child is considered successful in the situation when the treatment procedure is successfully completed and the child does not have unpleasant impressions of the treatment. To maintain a favorable relationship with the child, the pediatric dentist uses methods of non-pharmacological and pharmacological control of pain. Classic local anesthesia is one of pharmacological way of pain control and this method is very widespread in the world. We cannot even imagine work of pediatric dentist without local anesthesia now. Technics of local anesthesia is one of the most important and considerable topics in modern pediatric dentistry, especially in work with those kids who are afraid of needles.

The aim of this study is to analyze the methods of local anesthesia used in the work of a pediatric dentist. The materials of this work are textbooks and articles published over the past years about local anesthesia in pediatric dentistry.

There is some list of anesthesia methods suitable for children here:

1. Topical anesthesia: we use it mainly in pre-injection case (numbing the area of mucous membrane that we want to inject for minimal sensation).
2. Infiltration anesthesia: we use this method to block peripheral nerve fibers and their endings. This method is the most common in children.
3. Nerve block anesthesia: we use this one mainly in case of posterior teeth and those processes which will need total numbness of the mandible such as surgical operations like cystectomy and cystotomy.

Children have features of the anatomical structure of the maxillofacial region, which leads to differences in injection anesthesia techniques in adults and children. This is especially significant when we are performing nerve block anesthesia. It is also necessary to use special methods for calculating the maximum possible dose of anesthetic, depending on the weight and age of the child. Children also need:

1. explanation of the anesthesia procedure using a special “child-friendly” terms;
2. to disguise (hide) the injection procedure;
3. explanation for the “sleeping mouth” to prevent lips and cheek biting.

There are also physical non-injecting (alternative) methods of local anesthesia in pediatric dentistry, like Transcutaneous Electrical Nerve Stimulation, audioanalgesia, hypnosis, cooling and ultrasonic action.

The optimal choice of local anesthesia is one of the keys to successful dental treatment of children.