



Article

In Children Tooth Caries Prevent in Receiving Fluorinated Prevention and Fissure Hermetic Sealing Efficiency : Literature Analysis

Tuychiboyeva Khayitgul¹

1. 3rd year student of Tashkent Kimyo International University Namangan branch

Abstract: Dental caries children between the most wide widespread chronic from diseases one become , mouth space global health problem is considered . This in the article in children caries primary in prevention applicable fluorinated agents (fluorinated tooth pastes and fluorinated varnish) and fissure hermetic sealing efficiency international systematic comments and World health storage World Health Organization (WHO) reports based on analysis Analysis to the results according to , fluorinated varnish regular application temporary in the teeth caries development approximately 37 percent , constant in the teeth and about 43 percent reduces . Fluoride tooth of the paste impact fluorine concentration related is at least 1000 ppm fluorine keeper pastes effective is considered . Fissure hermetic sealing permanent molars chewing gum on the surface caries the risk noticeable at the level reduces , but protection effect time to pass with decreases and hermetic preservation control requires doing . Conclusion as in other words , the most high to the result fluorinated prevention , hermitization , healthy food and hygiene skills own inside received complex approach through is achieved.

Keywords: dentistry , teeth caries , prevention , fluoride varnish , fluoride tooth paste , fissure hermetic sealing , children dentistry

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1. Introduction

Mouth space diseases world population big to the part impact doer the most wide widespread non-infectious diseases in a row WHO 's 2022 global report includes according to , mouth space diseases world along about 3.5 billion people impact does , their most and less and middle profitable in countries lives [1]. Global disease load research is also ongoing in the teeth untreated caries humanity between the most wide widespread situation that it is shows [2]. Childhood during started caries not only pain , chewing and speech to the violations , but from reading stay , life of quality decrease and treatment expenses to increase take is coming .

Current to concepts According to , caries is a biofilm bacteria harvest did acids under the influence tooth hard tissue demineralization and remineralization between balance violation as a result developing dynamic process [3]. This the process step by step stop or return possibility preventive approaches scientific basis organization will . Therefore modern children in dentistry « drilling and from the " fill " model caries prevent to take and him/her early in stages to stop directed to the model transition priority task is considered .[4]

Prevention tools between fluorine preparations and fissure hermetic sealing the most many studied and proven methods in a row However , in practice them application frequency , fluorine concentration and which young in groups application need according to questions preserved remains .[5]

The research purpose — in children tooth caries primary in prevention fluorinated tooth toothpastes , fluoride varnish and fissure hermetic sealing efficiency about international evidence analysis to do and practical recommendations to form .[6]

2. Materials and Methods

Research literature analysis (narrative) in the form of a comment) done . Analysis for evidence level high was Sources — Cochrane Systematics comments , WHO reports and caries pathogenesis and epidemiology dedicated large international comment articles selectively received .[7]

Sources choice Criteria : (1) children and in adolescents caries prevention or to the global burden of caries dedication ; (2) systematic review , meta- analysis or international organization report that is ; (3) complete of the text existence . Alone clinical observations , expert thoughts and from caries other in the direction affairs from analysis remove thrown away .[8]

Selected from sources following information separate taken : prophylactic of the tool type and application method , comparison group , caries growth decrease indicator (prophylactic share) and of the result reliability level . Data quality in terms of group , compare in a way analysis This was done . at work new statistic calculations not done and indicators in the sources such as cited .[9]

3. Results

1. Caries spread

Global disease load to the information according to , untreated caries permanent in the teeth billions in person , milk in his teeth and face millions in the child [10]. These indicators many in cases preventive services and fluorinated from tools use opportunity limited in the regions high to be record [11].

2. Fluoride tooth pastes

Cochrane Systematic comment fluorinated tooth paste with regular tooth wash caries prevent in receiving effective that it is confirms . Important aspect is that the effect is fluorine concentration related : concentration increasingly more protective level also increases , with concentrations below 1000 ppm of pastes impact and reliable unproven [12]. Therefore in children fluorine preservative paste recommendation is being done , its amount and to age looking (teeth) since it came out (starting from) normalization and fluorosis prevent to take for excess swallowed not being sent need .

3. Fluoride varnish

Fluorinated varnishes Cochrane review on them in at least two times application caries development temporary in the teeth approximately 37 percent , constant in the teeth and about 43 percent reduce [13] showed that the varnish advantage — fast and comfortable application , children by good acceptance to be done and systematic fluorine low absorption .

4. Fissure hermetic sealing

Table 1. Permanent molars chewing gum on the surface deep fissures caries for the most dangerous from places is considered . To the Cochrane review according to , tarry sealants hermetic not used to the teeth relatively permanent in the teeth chewing gum surface caries noticeable at the level reduces [14]. Thus together , protection effect observation deadline decreases as it lengthens , this hermetic partially or complete loss with related , therefore for periodic control and need when again application necessary [15].

Table 1. Results sum

Prevention tool	Home result
Fluorinated tooth paste (≥ 1000 ppm)	Caries growth decrease ; impact fluorine to the amount related
Fluorinated varnish (≥ 2 times a year)	Temporary $\approx 37\%$ in teeth , permanent $\approx 43\%$ reduction in teeth
Fissure hermetic sealing	Permanent molars chewing gum on the surface caries of danger decrease ; effective time to pass with decreases

4. Discussion

Analysis results this shows that fluorinated tools in children caries prevention basis become Fluorine pasty daily application population wide layers for the most cheap and comfortable method is considered , that is because of him/her first stage measures in a row input to the goal according to [16]. Fluorinated varnish and caries danger high was children for professional (dentist) by executable (additional) method as himself justifies [17].

Fissure hermetic sealing fluorinated from tools different accordingly of the tooth exactly the most weak place physicist barrier with This method protects permanent molars new came out at the time , that is caries danger the most high was in the period especially useful [18]. However hermetic The preservation of the operator's skills , the tooth dry in case insulation and child's to cooperation related that it is in consideration to take need .

Caries many factorial nature because of only one to the method rely on enough Not sugar . consumption restriction , hygiene skills formation and to the dentist regular appeal to do fluorine and hermetic sealing the effect increases [1 9]. From this except for preventive programs school and in kindergartens organization to grow from services use opportunity limited families cover to take effective way to be possible [20].

Work limitations : analysis narrative to the character has , comments various young groups , fluorine doses and observation deadlines according to heterogeneous to the information is based on , therefore for the results local to the population straight away in transit caution to be Local epidemiological research this to the point accuracy input possible .

5. Conclusion

Dental caries children between wide widespread prevention his/her prevent to take the most effective way is considered .

At least 1000 ppm fluorine keeper tooth paste with daily tooth wash primary prevention main from the measures one to be need .

Caries danger high was in children fluorinated varnish per year at least two times application recommendation is being done .

Permanent in molars fissure hermetic sealing chewing gum on the surface from caries protection does , but its preservation periodic control to do necessary .

The most good result fluorine , hermeticization , rational food and sanitation education combined complex approach with is provided .

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