

The Importance of Oral Health Care In Children with Heart Disease

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Abstract

Most common childhood disease is dental caries and it is considered as a public health concern over the world [1].

Also, the children with congenital heart defects (CHD) are at greater risk for tooth decay so it is important to give oral health good care from the early childhood [2].

- Causes of early childhood caries (ECC)
- High prevalence of early childhood caries in congenital heart defects (CHD) patients
- How dose the dental caries affects the heart?
- What is endocarditis?

Endocarditis is a rare infection can occurs when there is a sepsis, so the bacteria enter the bloodstream and travel to the heart. it is a very serious infection requiring admission to the hospital and long treatment with intravenous antibiotics.

- The treatment plan for the pediatric cardiac patient must include the following
- How to Prevent tooth decay at home: 12,13
- Reduce the amount of sugar in your child diet to avoid starting the decay process.
- Taking care of oral health by good oral hygiene, such as brushing teeth two times a day, and this will help to remove the acid made by the bacteria that causes decay.

Summary:

The good oral health, and regular follow up with a dentist, can prevent our hearts from one of the most serious infection in the body.

Keywords: Oral health; Heart disease; Endocarditis

Introduction

Most common childhood disease is dental caries and it is considered as a public health concern over the world [1].

Also, most studies showed that the children with congenital heart defects (CHD) are at greater risk for tooth decay so it is important to give oral health good care from the early childhood [2].

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Causes of early childhood caries (ECC):

- Infectious, transmissible, diet-dependent disease [3].
- Sweetened nutritional supplements [4,5].
- Gastroesophageal reflux with associated acid erosion of teeth [5,6].
- Xerostomia induced by medications [5].

High prevalence of early childhood caries in congenital heart defects (CHD) patients because of:

- Poor daily oral hygiene combined with a cardiogenic diet is common in this patient group [5].
- Chronic administration of sugar-based liquid medications.
- low priority placed on oral care because of the severity of the cardiac disease [5].
- Children with cyanotic heart disease may have weaker teeth due to poor oxygenation [7].
- Some cardiac medications can lead to dry mouth so it will increase the risk for dental caries [7].

How does dental caries affect the heart? [7-9]

- Children with CHD who require cardiac surgical intervention are also at risk for infective endocarditis.
- Periodontitis is a gum disease that can increase the risk of developing endocarditis.
- The risk of a bacterial infection in the blood stream or sepsis will increase with poor dental health, which can affect the heart particularly if there are artificial heart valves.

What is endocarditis? [10]

Endocarditis is a rare infection that occurs when there is a sepsis, so the bacteria enter the bloodstream and travel to the heart. It is a very serious infection requiring admission to the hospital and long treatment with intravenous antibiotics.

Look after teeth and gums is the best way to reduce the risk of endocarditis.

Sepsis and endocarditis can also occur after an invasive procedure that can damage to or cutting the skin, such as having oral piercings, so it is recommended that these are avoided.

The treatment plan for the pediatric cardiac patient must include the following [11]:

1. A complete medical history that will elicit adequate information with respect to the patient's possible heart condition.
2. Consultation with the family physician, pediatrician and/or cardiologist to learn the specific nature of the defect, specific past history, the child's ability to tolerate stress and anxiety, current medication and any specific recommendations for patient management.

3. Antibiotic prophylaxis, in an effort to prevent endocarditis, for all dental procedures that are likely to result in gingival bleeding, including routine professional cleaning. Application of chlorhexidine may be used as an adjunct to antibiotic prophylaxis, particularly in patients who are at high risk and/or with poor dental hygiene.
4. Prompt and vigorous treatment of all infections, with extraction to be considered as the preferred treatment for endodontically involved primary teeth.
5. A frank and open discussion with the parents and patient, detailing the importance of strict oral hygiene and regular dental care for both the oral and general health of the patient.

What can you do to prevent cavities! [12,13]

The keystones to good oral health is to concentrate on daily care and regular dental visits beginning at 1 year of age.

Prevent tooth decay at home [12,13]

Reduce the amount of sugar in your child diet to avoid starting the decay process.

Taking care of oral health by good oral hygiene, such as brushing teeth two times a day, and this will help to remove the acid made by the bacteria that causes decay.

Summary

The good oral health and regular follow up with a dentist, can prevent our hearts from one of the most serious infection in the body.

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