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Dental caries and homoeopathic management: A review

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Abstract

Dental caries is one among the predominant oral diseases amongst children in the world and the burden of dental caries still remains a global community health challenge, affecting a child's dentition commencing from the first stage of life. The dental caries disease develops due to the multifaceted interaction between three essential factors: the microorganisms (dental plaque), the substrate (fermentable carbohydrates in a food), and the host susceptibility (teeth and saliva). When the dental caries is left untreated, the process can develop quickly and it significantly impair the primary and secondary dentition. The untreated caries in addition to the subsequent deprived dental aesthetics have emotional and social adverse effects upon children's oral health-related quality of life due to its negative effects happening on self-esteem. Diagnosing caries and identifying caries patients is one of the greatest challenges in dentistry during initial stages of the disease. The role of Homoeopathic treatment in managing, the dental caries in children has to be undertaken, as there are many remedies mentioned in Homoeopathic literature which are based on the pathology of the disease. This review article gives some of the Homoeopathic therapeutics of dental caries.

Keywords: Dental caries, early childhood caries, homoeopathy

Introduction

In spite of widespread precautionary measures, dental caries still remains as a burden, affecting the physical, mental, social and financial aspect of the mankind. Dental caries has its root in origin, as early as 460 BC to 377BC ^[1]. The outcomes of global burden of the disease study given by Lancet in 2017 showed that the occurrence of permanent tooth caries, graded first among 328 diseases, and incidence graded second. Nearly 2.44 billion population globally are suffering from complete tooth deterioration. In addition, according to the 4th National Oral Health Survey of Mainland China, the occurrence of primary caries in five-year-old is 71.9%, 5.9% higher than 10 years ago, and the occurrence of caries in permanent teeth in 12 years old is 38.5%, 9.6% higher than 10 years ago. And the proportion of treated caries is relatively low ^[2]. As many children are still getting affected due to dental caries, the significant attention is given, as it occupies a major portion of dental practice ^[3].

Dental caries

The word caries, derived from Latin word, meaning "rot" or "decay." And it is, as well related to Greek word "Ker," meaning "death". Caries is a microbiological illness of the calcified tissue of teeth, that results in demineralization of inorganic components and consequent disintegration of the organic moieties of dentin and enamel. It is difficult to explain the etiology of dental caries, as it involves multifactorial background. Caries vaccine is also available globally now ^[4].

Current concept of dental caries

- Some theories state that the interface between the three chief factors (i.e., host, agent and environmental influences) is important for initiation and progression of caries which includes a susceptible host tissue (tooth); microflora with cariogenic ability; and a suitable local substrate to meet the requirements of the pathogenic flora ^[4].
- Demineralization–Remineralization Concept states that the imbalance occurring in demineralization–remineralization cycle is responsible for dental caries in the oral cavity ^[4].

Classification of caries ^[4]

- According to occurrence – Incipient, Recurrent, Residual
- According to speed – Acute and Chronic
- According to location - Smooth surface, Root surface, Pit and fissure
- According to direction - Forward caries, Backward caries
- According to age - Early childhood caries, Adolescent caries, Senile caries
- According to surface – Simple, Compound, Complex
- According to type of surface – Occlusal, Proximal

Etiological factors related to caries

- Dietary factors – fermentable mono and disaccharides, frequent snacking between meals, sticky nature ^[1, 4]
- Microorganisms like streptococcus mutans, actinomyces, lactobacilli ^[1, 4]
- Host factors – tooth abnormalities, saliva quantity, composition and buffer capacity etc. ^[1, 4]
- Genetic factors ^[1]
- Immunological factors ^[1]

Diet and dental caries

- Controlled research in humans and animals have confirmed that, the excessive and regular use of extremely fermentable mono and disaccharides is associated with the high caries rates. Sucrose is the most cariogenic ^[4].
- Foods such as fruit juices, lemons, apples and carbonated beverages, which are acidic, can result in demineralization of enamel.
- Deficiency of vitamin D and vitamin A can cause caries of tooth.
- Sweets, chocolates, jams and ice cream are cariogenic.
- High protein diets, Fats, phosphates and detergent diets consumption are found to be cariostatic ^[3].
- Milk may exhibit some cariostatic effect ^[4].

Early Childhood Caries

American Academy of Pediatric Dentistry (AAPD) defined Early Childhood Caries (ECC) as the existence of one or more decayed (non-cavitated or cavitated lesions), lost (due to caries), or filled tooth surfaces in any primary tooth in a child under six years of age. The various stages involved in the development of early childhood caries lesion include initial reversible stage, damaged carious stage, deep lesion, traumatic stage and one of the risk factors for ECC include infant feeding patterns. The use of bottle contact to greater length and use of the bottle feeding beyond the age of 1 year is a major risk factor for caries ^[4]. Rampant dental caries, referred as early childhood caries in infants and toddlers ^[5].

Diagnostic aids in dental caries

- Accurate diagnosis of incipient stage of caries tooth can result in reversal of disease by use of proper interventional method ^[1] and by modifying the diet and improving plaque control ^[4].
- The conventional diagnostic methods include visual inspection, dental floss, tactile examination with a probe, tooth separation, caries detector dyes, ultraviolet illumination, conventional radiographs.
- Advanced diagnostic methods include digital

radiography, Laser Fluorescence (DIAGNOdent), Ultrasound Caries Detector, Carie Scan Pro, D-Carie Mini, Midwest Caries ID (LED Technology), and Advanced Radiographic Techniques like MRI, Tuned aperture computed tomography (TACT) are available ^[4].

Clinical manifestation of dental caries

- Incipient lesion which is known as white spot lesion, four zones of alternating levels of mineralization are present in enamel early.
- Cavitation occurs when demineralization progress towards dentine.
- Carious exposure results, if the lesion further progress towards the pulp ^[1].

Complications

- Pulpitis
- Dental abscess
- Disruption of successor permanent tooth development
- Spread of infection to other facial spaces ^[5]

General management for dental caries ^[3, 5]:

- Oral hygiene
- Plaque formation can be controlled by tooth brushing, flushing and scaling.
- Water fluoridation
- Nursing during sleep must be discouraged

Homoeopathic management**Reportorial Rubrics for dental caries in Synthesis 8.IV repertory in RADAR 10.0.028 version**

- Teeth – caries, decayed, hollow
- Teeth – caries - children; premature in
- Teeth – caries - painful
- Teeth – caries - rapid
- Teeth – caries - gums, at edge of
- Teeth – caries - internal
- Teeth – caries - roots, at
- Teeth – caries - sides of teeth

Homoeopathic therapeutics**Calcarea carbonica**

- Children with flabby muscles, sweats and take cold easily in consequence ^[6]
- Scrofulous constitution, phlegmatic temperament and has its chief action upon impaired nutrition ^[7].
- White decay or light brown teeth of childhood ^[8]. Toothache; worse by current of air, whatever cold or hot ^[7]

Calcarea phosphorica

- Scrofulous children, during first and second dentition ^[6]
- Rapid decay of teeth ^[7, 8]

Calcarea fluorica

- Unnatural loosening of teeth, with or without pain. The tooth will be loose in the socket. Toothache that hurts when food touches the tooth ^[7]

Fluoricum acidum

- Rapid caries of teeth ^[6, 9]; aggravation at roots ^[10]

Mezereum

- Toothache: in caries teeth; night aggravation; ameliorated by mouth open, drawing in air; root degenerates [6, 10, 11].

Carbo vegetabilis

- White decay, slight acidity of saliva, and spongy, swollen, easily bleeding gums, presenting with anemic appearance [8].

Plantago major

- Sharp aching in the eyes, a response from decomposed teeth. Otagia with toothache. Teeth are sensitive and sore to touch. Toothache better while eating [7, 10, 12].
- Toothache with salivation and pain aggravation after contact and extremes of hotness and cold. Rapid decay and shooting up pain along left side of face [13].

Kreosotum

- Painful teething; teeth start to decay as rapidly, when they appear [6, 9].
- The child does not sleep. Very rapid caries with spongy bleeding gums; teeth dark and brittle [7].
- Pain extends from teeth to left side of face; associated facial pains are burning and patient is excitable, nervous. Children, thrown into convulsion [14].
- Rampant caries with periodontitis [15].

Staphysagria

- Toothache: caries of teeth; aching when touch of food or drinks, not from biting otherwise chewing; aggravation drawing cold air into mouth, from cold drinks and after eating [6, 7].
- The teeth turn black and dark streaks appear. Teeth crumble and decay at edges [6, 7].
- Children are weak, broken down as consequence of syphilitic or Syctic inheritance. The milk-teeth are hardly fully grown before they become, black increases or spots and crumble away [14].

Thuja occidentalis

- Teeth decay at the roots, crown remain sound; crumble, turn yellow. Toothache from tea drinking and aggravation cold [6, 10].
- Teeth deteriorate next to gums, very sensitive and retraction of gums [7].

Syphilinum

- Teeth: caries and creases in the gingival line; cupped in children [16] with serrated margins; dwarf in size, converge at tips [6, 7, 10].

Antimonium crudum

- Gums separate from teeth and bleed. Odontalgia in hollow teeth [7].
- Toothache in decayed teeth, worse at night [11].
- Toothache, aggravation from cold water, by least touch and amelioration in open air [17].

Angustura vera

- Drawing in upper right molar tooth, amelioration after application of cold finger. Throbbing in hollow teeth [13].

Paris quadrifolia

- Toothache with drawing pulsations in carious teeth, aggravation by cold things. Incisive pain in gums, each morning. Gums shriveled as if they were burnt [13].

Piper nigrum

- Tooth decay and violent toothache, aggravation in warmth and evening [13].

Hecla lava

- Facial neuralgia due to carious of teeth and after removal. Odontalgia with swelling about the jaws [7].

Borax

- Pressive and also cramp-like pain in decay teeth, particularly in damp weather and sometimes with inflammatory swelling of cheek or gums.
- Acute drawing pains, spreading overhead, worse when touched with tongue or when application of cold water.
- Shooting pains with shootings in ears and with headache in case of caries of tooth [13].

Sepia

- Toothache, worse when compressing or touching the teeth and during speaking, after least presence of cold air [13, 16].
- Nocturnal toothache associated with extreme excitement [13].

Natrium carbonicum

- Toothache, with boring and digging pain, especially after and during the meal, mostly after eating sweetened things with sugar or else fruits.
- Pressive toothache with swelling of gums and lower lip at night [12, 13].

Plumbum metallicum

- Pains are tearing, jerking in teeth, which are aggravated with cold things.
- Black colored teeth.
- Foul, hollow, caries of teeth, which disrupt in notches. Falling and looseness of teeth [13].

Mercurius

- Crowns of teeth decay, roots remain [6].
- Looseness of teeth, sensation of tenderness and elongated [7, 16].
- Toothache is temporarily relieved by applying cold water and exacerbation occur from evening to midnight [18].

Coffea cruda

- Decayed teeth in children [17].
- Pulpitis. Toothache relieved through holding ice cold water in mouth [15].

Acidum sulfurosum

- Dental caries. Stains on teeth are brownish, particularly in incisors [19].

Parathyroid hormone

- Arthritis and caries of tooth sockets [19].

Agathis australis

- Hollow teeth, decayed, dental caries. Pain in root of the teeth ^[20].

Conclusion

As dental caries occurs as a destructive pathology in human body, a deep insight research has to be done, in order to determine the efficacy of Homoeopathic treatment (in the sphere, as preventive and curative medicine). And research related to dental caries in Homoeopathy are very less, where individualized Homoeopathic treatment has its scope. Awareness about dental caries and oral hygiene among children should be thought, during Homoeopathic treatment for patients.

References

1. Damle SG. Textbook of Pediatric dentistry. Arya (Medi) publishing house; 2nd edition; c2002. p. 34-64.
2. Cheng L, Zhang L, Yue L, *et al.* Expert consensus on dental caries management. *Int J Oral Sci* [internet] 2022 [cited 2022 March 22];14:17. Available at: <https://doi.org/10.1038/s41368-022-00167-3>
3. Parthasarathy A, Menon PSN, Nair MKC. IAP Textbook of Pediatrics. Jaypee Brothers Medical Publishers (P) Ltd; 7th edition; c2019. p. 1308-1310.
4. Marwah Nikhil. Textbook of Pediatric dentistry. Jaypee Brothers Medical Publishers (P) Ltd; 4th edition; c2019. p. 465-520.
5. Nelson W, Kliegman R, St Geme J, Behrman R, Tasker R, Shah S, *et al.* Nelson textbook of pediatrics. 21st ed. Philadelphia: Elsevier. c2020. p. 1918-1921.
6. Allen HC. Allen's Keynotes rearranged and classified with leading remedies of the Materia Medica and bowel nosodes. B. Jain publishers (P) Ltd.; 10th edition; 26th impression; c2013.
7. Boericke William. Boericke's new manual of Homoeopathic Materia Medica with repertory. B. Jain publishers (P) Ltd.; 33rd impression; c2014.
8. Winkler Geo. Howe. The Cause and Prevention of Dental Decay. *Am J Dent Sci.* 1900 Feb;33(10):452-458. Article iv. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6067290/pdf/amjdentsci81665-0020.pdf>
9. Lippe Von Adolph. Keynotes and red line symptoms of the Materia Medica. B. Jain publishers (P) Ltd.; 10th impression; c2020.
10. Boger CM. A Synoptic key to the Materia Medica. B. Jain publishers (P) Ltd.; 8th impression; c2012.
11. Nash EB. Leaders in Homoeopathic therapeutics. B. Jain publishers (P) Ltd.; 8th impression; c2012.
12. Phatak SR. Materia Medica of Homoeopathic Medicines. B. Jain Publishers P Ltd; Revised Edition; c2007.
13. Clarke Henry John. A Dictionary of Practical Materia Medica. B. Jain publishers (P) Ltd.; 1992.
14. Farrington Harvey. Clinical Materia Medica. B. Jain publishers (P) Ltd.; reprint edition; c2006.
15. Gupta Girish C, Trivedi Karuna S. Homoeopathy in the purview of dentistry. *The Hahnemannian Gleanings*; c1980. p. 342-343.
16. Kent JT, Reddy E, Sharma PK, Raj PP. A clinical study on effect of Plantago in gingivitis by assessing bleeding and plaque index. . *Lectures on Homoeopathic Materia Medica.* B. Jain publishers (P) Ltd.; 11th impression; c2013.
17. Farrington EA. Comparative Materia Medica. B. Jain publishers (P) Ltd.; 19th impression. Adi BS, Adi GB, Jamadade AK. A Comparison of the Efficacy of *Gymnema Sylvestre* 6 Ch and *Gymnema Sylvestre* Mother Tincture in Cases of Type 2 Diabetes Mellitus. *World Journal of Current Medical and Pharmaceutical Research.* 2019-2020 May 1:133-8.
18. Bernhard Baehr. The Science of Homoeopathic Therapeutics translated and enriched with numerous additions from Kafka and other sources by Charles J. Hempel. B. Jain publishers (P) Ltd.; reprinted edition; c2004. p. 329.
19. Julian OA. Materia medica of New Homoeopathic Remedies. Elsevier. South Asian edition; c2007. p. 28-29
20. Murphy Robin. Lotus Materia Medica. B. Jain publishers (P) Ltd.; third revised edition; c2010. p. 65.