

USE OF PROPOLIS IN PEDIATRIC DENTISTRY: A RECENT VIEW

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INTRODUCTION

Propolis (bee glue) has been known since ancient times. The healing properties of propolis have long been known, and it was extensively used as a medicine. The natural product propolis is a great help, as it is a non-toxic resinous substance which has antimicrobial, anticancer, antifungal, antiviral and anti-inflammatory properties in dentistry, oral health and medicine.

MATERIALS AND METHOD

PUBMED, MEDLINE, SCOPUS searched for work published from January 2012 to March 2021 using keyword 'propolis'.

Original retrospective and prospective studies and review articles were included.

A total of 10 articles were included.

RESULT AND DISCUSSION

Author	Work
Sardana et al., 2013 ¹	Propolis is a resinous substance derived from bees. It has long been used in medicine for its beneficial properties, including antimicrobial, anti-inflammatory, antidiabetic and local anaesthetic effects.

The role of propolis is discussed in various branches of dentistry, including: preventive dentistry, dental traumatology, endodontics, periodontology, orthodontics and oral oncology.

Malhotra et al., 2014 ²	Paediatric age groups are the ones that are more susceptible to a drug. Complications/side effects due to the use of synthetic drugs have paved the way for natural products for pharmacotherapeutic purposes.
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Propolis shows dental application based on properties. An alternative to gold standard drugs, propolis is easy to use, patient friendly, and easily accessible.

Baranwal et al., 2017 ³	Compare the diffusion ability between non-alcoholic calcium hydroxide-propolis paste, calcium hydroxide-saline paste, and calcium hydroxide-propylene glycol paste.
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Non-alcoholic calcium hydroxide-propolis paste used during the study was able to diffuse through the dentinal tubules. Thus, it can be used as a vehicle for calcium hydroxide.

Hugar et al., 2017 ⁴	Compare and evaluate the clinical pulp response and radiographic signs after pulpotomy in four groups of primary molar teeth treated with formocresol (control), propolis extract, turmeric gel, and calcium hydroxide respectively.
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Excellent clinical and acceptable radiographic success was observed with the test materials.

Pasupuleti et al., 2017 ⁵	In this paper, the effects of honey, propolis, and royal jelly on different metabolic diseases, cancers, and other diseases were reviewed.
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These products are highly rich in active components such as flavonoids, phenolic acid, phenolic compounds, terpenes, and enzymes, which have biological functions in preventing some diseases and promoting good health.

Khurshid et al., 2017 ⁶	They emphasized the use of natural products for curing diseases and discuss the status and scope of propolis for current and potential bi-dental applications in modern day dentistry.
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Maintains periodontal health, acts against endodontic pathogen, treats dentin hypersensitivity, used in mouth washes and toothpastes and many more.

Neto et al., 2019 ⁷	Evaluate the dose-response concentration of alcoholic extract propolis (BRP), in the form of dental varnish, against <i>Streptococcus mutans</i> .
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The BRP extract in the form of dental varnish has antimicrobial activity and constitutes a possible alternative in the prevention of dental caries.

Menses et al., 2020 ⁸	The focus of this triple-blind randomised study was to evaluate the mechanical properties, antibacterial effect, and in vivo biocompatibility of glass ionomer cements (GICs) modified with ethanolic extracts of propolis (EEP).
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Incorporation of 50%-EEP into GICs has been shown to be an encouraging method for achieving an antibacterial GIC in dentistry.

Zulhendri et al., 2021 ⁹	This review article attempts to get the potential use of propolis in general dentistry and oral health management.
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Uses as antibacterial, antiviral antifungal, anticancer, anti-inflammatory immune modulator which helps in bone and wound healing

Yerate et al., 2021 ¹⁰	In dentistry, propolis has wide applications for the prevention of dental caries and periodontal diseases, as storage medium for an avulsed tooth, endodontics, periodontics and orthodontics.
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Propolis being a natural alternative is easily accessible, safe, and has fewer adverse effects.

CONCLUSIONS

Propolis is rated among few natural remedies, with a wide range of applications in both dentistry and medicine. It's use in paediatric dentistry, as an intra-canal medicament, and in the restorative, endodontic, orthodontic and periodontal health of patients.

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