



INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation

Journal Home Page: www.ijrps.com

A concise review of oil pulling as a precautionary measure in COVID-19 pandemic

Twinkal Mahakale¹, Gaurav Sawarkar^{*1}, Vaishali Kuchewar², Pramod Khobragade³¹Department of Rachana Sharir, Mahatma Gandhi Ayurved College Hospital and Research Centre, Datta Meghe Institute of Medical Science (Deemed to be University), Wardha, Maharashtra, India²Department of Kaychikitsa, Mahatma Gandhi Ayurved College Hospital and Research Centre, Datta Meghe Institute of Medical Science (Deemed to be University), Wardha, Maharashtra, India³Department of Dravyaguan, Datta Meghe Ayurved Medical College Hospital and Research Centre, Wanadongri, Nagpur, Maharashtra, India

Article History:

Received on: 09 Oct 2020
Revised on: 06 Nov 2020
Accepted on: 09 Nov 2020

Keywords:

Gandush,
Oil Pulling,
COVID-19,
Oral Cavity

ABSTRACT

COVID-19 pandemic situations generate myths that create doubt in society that things have to follow due to some misunderstanding and inadequate shreds of evidence ancient medicine lacking behind despite tremendous potential. Various modalities are in force to prevent a pandemic situation; the Dept of AYUSH is playing a very vital role in this condition. The dept. of AYUSH, Govt. of India giving rise to funding to various research institutes, private organizations, and deemed universities. Simultaneously, to combat pandemic situation AYUSH department focusing on Yoga, Pranayama, consumption of immunomodulatory drugs, herbal medicines, diet regimen and release protocol for COVID-19 mild, moderate and severe conditions. In Ayurveda the *Kriyakalpa* have mentioned: the therapeutic procedures used to cure the disease and practicably act with prescribed guidelines for specific disorders related to the eyes and ear. The *Gandush* (oil pulling), one of the types of *Kriyakalpa*, also can be useful to prevent airborne infections. This procedure helps for the oral cavity's excellent health, which can avoid diseases through the air, increasing the immunity power of surrounding organs and avoiding favorable conditions to get infected. It is readily responsive to clear nasal and oral route and decrease *Kapha Dosha*. This is a very cost effective and easily adoptable procedure having a negligible diet regime and precautionary measures.



*Corresponding Author

Name: Gaurav Sawarkar
Phone: 8956977899
Email: drsawarkar.gaurav@gmail.com

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11iSPL1.4047>

Production and Hosted by

IJRPS | www.ijrps.com

© 2020 | All rights reserved.

INTRODUCTION

Ayurveda is an ancient medical science gift from Old sages. It is not only a system of medicine in the sense of curing disease. Several types of modes are in force to prevent a pandemic situation like Yoga Pranayama, consumption of immunomodulatory drugs (Gurmule, 2020; Rajput, 2020), antiviral herbal drugs (Rathi et al., 2020), take care of health with proper diet (Lohi and Sawarkar, 2020) is one of the crucial factors which directly affect the individual health. It is also a way of life that teaches us how to maintain and protect health. *Kawal* and *Gandush* (oil pulling) are incorporated in *Kriyakalpa*

by Sharangdhara (Bhat, 2016). 'Kriya' mean therapeutic procedures used to cure the disease and 'Kalpa' means practicable, manner of acting a prescribed rule mean *kriya Kalpa* specific formulation used for therapy in *Ayurveda* in mainly *Shalakyatantra* (Bhutada, 2019). Oral health and essential in COVID-19, *Kawal*, and *Gandush*, maintain the strength of all kinds of organ present above the suprasternal notch (Naseem et al., 2017). Its humble attempt to review oil pulling therapy in the context of oral hygiene as a precautionary measure in the COVID-19 pandemic.

Mode of transmission

The virus is transmitted to direct contact with an infected person's respiratory droplet through coughing and sneezing. An individual can also be affected by touching a surface contaminated with the virus and touching their face, eye, nose mouth (Fadanavis and Sawarkar, 2020). COVID-19 may survive on the surface for several hours, but simple disinfectants can kill the virus. COVID-19 get affect through the nose, mouth, eyes (Modes of transmission of virus causing COVID-19, 2020). Airborne transmission via aerosols are particles under 100 μm in diameter, minute size and suspension in the air may ease direct contraction of the virus. Aerosols may be formed during various surgical and dental procedures or formed as droplet nuclei while talking, coughing, and sneezing by an infected patient. Aerosolized SARS-CoV-2 remains viable in the aerosols for three hours and on different surfaces for 4–72 h, so a better way to avoid unnecessary contact with other things and avoid sharing toilets risk transmission of the virus (Karia et al., 2020).

Importance of oil pulling

The *Kriyakalpa* is mainly used in *urdhwagata roga* (Diseases above suprasternal notch) (Naseem et al., 2017). It increases the immunity power of surrounding organs and avoids favorable conditions to get infected. It is readily responsive to clear nasal and oral route and decrease *Kapha Dosha*. According to *Dosha*, various types of drugs can be used and cure diseases related to the respiratory tract. Oil gargling or holding in the oral cavity is advantageous to the strength of jaws, voice, the softness of face skin, upgrade the functioning of sense organs. Get relief from the dryness of throat, cracked lips as well as teeth disorders (Matrashiteeya Adhyaya, 2020). Recent researches revealed the connection of saliva with systemic health. The non-invasive nature and effortless collection of salivary fluid may be the choice for diagnostic and critical health surveillance determinations. Saliva and related oral fluids help to maintain the functions in the oral cavity. The

juices reduce oral biomass and facilitate mechanical cleaning of teeth with an optimal pH, which efficiently enables verbal tasks and comprises an array of antimicrobial components. Saliva is not just an ultra filtrate of plasma, but it contains the complete collection of proteins, hormones, antibodies, and other molecular compounds that can easily measure through routine blood tests (Tiwari, 2011).

Mechanism of oil pulling

The oral cavity is continuously flushing saliva and facilitates the flow of the food debris to keep clean the mouth. Salivary secretions are comparably slow down during sleep; that's why the bacterial growth increases in the mouth resulted in the foul smell of breath in the morning. Salivary enzymes are carried out lyses of so many bacteria that prevent the microbial population's excessive growth in the oral cavity. Because of this phenomenon, researchers suggested salivary fluid analysis to predicts or to diagnose or to avoid health-related issues and overcome future unwanted illnesses. The variety of molecules freely travel through the cells and can have assessed in the salivary ducts, which can be analyzed in the assay of salivary fluid. These small molecules are hormones, a chemical indicator of health, various types of enzymes, toxins (Tiwari, 2011). It is hypothesized that the tongue, a sense organ, is connected with vital organs like the lungs, heart, intestine, kidney. Oil pulling helps to excrete toxic metals through saliva, where salivary enzymes absorb blood toxins like chemical, bacterial, and environmental and expelled through the tongue (Shanbhag, 2017). It is a simple mechanism that works in oleation therapy (Sawarkar and Prasad, 2017).

Drugs used for oil pulling

The various drugs are used for oil pulling like milk, cow urine, olive oil, mango pulp, gooseberry extract, sunflower oil, sesame oil, coconut oil, medicinal decoctions, etc. Specifically, oils work on pulling techniques of bacteria, viruses, and protozoa. Traditionally sesame oil is frequently used for oil pulling (Hebbar et al., 2010; Shanbhag, 2017).

DISCUSSION

In COVID-19, the disease having cardinal symptoms as like *Vatasleshmak Jwar*. They are fever (*Jwar*), cold (*Pratishya*), cough (*Kasa*), etc. and having related causative factors. In this case, the *Vatasleshmak Jwar* treatment can help manage the corona disease to some extent (Vaidya and Sawarkar, 2020). The lung is the main vital organ affected in the disease, composed of blood and its frothing part, playing an essential role in maintaining the body's

water level (Gupta *et al.*, 2020). Oil pulling is a form of retention of fluid in the mouth for a specific period till the occurrence of lacrimation and nasal discharge. After that, the patient is advised to spit out. Regular use of oil pulling facilitates strength to voice, jaws, face and better taste perception, strong and healthy teeth, and protect the oral cavity from other diseases. The medicated liquid or oil's active ingredients and chemical constituents stimulate the chemo receptors and mechano receptors and produce the salivary nuclei in the brain stem. As a result, the parasympathetic nervous system activates and increases impulses through motor fibers in facial and glossopharyngeal nerves. All the process forcefully increases the output of salivary secretion, which predominantly watery. That helps to dislodge the metabolic toxins, food debris, depositions, and microorganisms present in the oral cavity, mixed with retained medicated liquid or oil, and removed from the oral cavity (Mohan and Sawarkar, 2019).

The saliva helps digest the food, protects teeth from various infections, and controls microbes in the oral cavity. If saliva doesn't make secret, the oral cavity becomes dry and which will be very prone to any infection (Altamimi, 2014). The oil pulling is useful for dryness of the mouth. It facilitates to get the oral cavity moister (Kavala (Gargling)-Gandusha (Holding fluid inside the mouth/Oil Pulling), 2020). Oil pulling develops antioxidant elements for damaging the bacterial cell wall, attract them and pulled into the area of oil, the site gets increased due to emulsification processes during oil pulling (Shanbhag, 2017). This procedure helps prevent airborne disease by ceasing the growth of pathogenic and non-pathogenic organisms in the oral cavity. Researchers found the effect of oil pulling on halitosis and its microorganisms as effective as chlorhexidine (Asokan *et al.*, 2011). On review of various research studies, it is observed that regular and correct use of oil pulling helps keep oral hygiene well. Still, enough research studies are not detected, which can conclude the promising effect of oil pulling on microbes. Beholding the benefits of oil pulling, the regular and judicial practice provides a healthy oral cavity setting. It increases the immunity of besides organs, which ultimately plays a precautionary role in the present COVID-19 pandemic situation.

CONCLUSION

Oil pulling therapy is a straightforward and cost-effective treatment that provides a healthy oral cavity and easy to accept due to its less follow-up regime

and precautions. Regular use of oil pulling can prevent airborne diseases up to some extent and take apart to combat COVID-19 situation.

ACKNOWLEDGEMENT

I am very grateful to Datta Meghe Institute of Medical Sciences (Deemed to be University) to provide research support and financial assistance for the publication.

Funding Support

The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

REFERENCES

- Altamimi, M. A. 2014. Update knowledge of dry mouth- A guideline for dentists. *African Health Sciences*, 14(3):736-736.
- Asokan, S., *et al.* 2011. Effect of oil pulling on halitosis and microorganisms causing halitosis: A randomized controlled pilot trial. *Journal of Indian Society of Pedodontics and Preventive Dentistry*, 29(2):90-94.
- Bhat, P. M. 2016. A review on kriyakalpa: the modern approach to ayurvedic ocular therapeutics. *International Journal of Research in Ayurveda & Pharmacy*, 7(5):12-16.
- Bhutada, R. S. 2019. To study the effect of mahanilvarti anjana in the management of avrana shukla with special reference to corneal opacity. *Journal of Critical Reviews*, 6(6):615-622.
- Fadanavis, M. V., Sawarkar, P. 2020. Concept of Airborne Infectious Disease in Ayurveda. *International Journal of Research in Pharmaceutical Sciences*, 11(3):4847-4856.
- Gupta, K. R., *et al.* 2020. The Critical appraisal of pipasa in chronic obstructive pulmonary disease. *International Journal of Ayurvedic Medicine*, 11(1):44-49.
- Gurmule, R. K. 2020. Role of Chyavanprashas a Rasayana in combating an outbreak of COVID-19. *International Journal of Research in Pharmaceutical Sciences*, 11(1):165-170.
- Hebbar, A., *et al.* 2010. Oil pulling - Unraveling the path to a mystic cure. *Journal of International Oral Health*, 2(4):11-14.
- Karia, R., *et al.* 2020. COVID-19 and its Modes of Transmission. *SN Comprehensive Clinical Medicine*, 2(10):1798-1801.

Kavala (Gargling)-Gandusha (Holding fluid inside the mouth/Oil Pulling) 2020. Kavala (Gargling)-Gandusha (Holding fluid inside the mouth/Oil Pulling) | Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Government of India. (accessed 7 May 2020).

Lohi, A. S., Sawarkar, G. 2020. Management Of Diet During Covid-19 Pandemic. *International Journal of Research in Pharmaceutical Sciences*, 11(1):154-157.

Matrashiteeya Adhyaya 2020. Charak Samhita. Sutra Sthana Chapter 5. The proper quantity of food and daily regimen for preserving health.

Modes of transmission of virus causing COVID-19 2020. Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations: scientific brief. (Accessed on 27 March 2020).

Mohan, M., Sawarkar, P. 2019. Contribution of Ayurveda for the management of Swarabheda: A case study. *Journal of Indian System of Medicine*, 7(3):178-178.

Naseem, M., et al. 2017. Oil pulling and the importance of traditional medicine in oral health maintenance. *International Journal of Health Sciences*, 11(2):65-70.

Rajput, D. S. 2020. Evolution, Ayurveda, immunity, and preventive aspects for emerging infectious diseases such as Covid-19. *International Journal of Research in Pharmaceutical Sciences*, 11(1):86-93.

Rathi, B., et al. 2020. The relevance of Ayurveda Anti-viral herbal wisdom from the perspective of current researches. *International Journal of Research in Pharmaceutical Sciences*, 11(1):175-182.

Sawarkar, P. G., Prasad, K. S. R. 2017. Concept of Sadyasnehana- A review. *Journal of Indian System of Medicine*, 5(4):292-300.

Shanbhag, V. K. L. 2017. Oil pulling for maintaining oral hygiene – A review. *Journal of Traditional and Complementary Medicine*, 7(1):106-109.

Tiwari, M. 2011. Science behind human saliva. *Journal of Natural Science*, 2(1):53-58.

Vaidya, H. D., Sawarkar, P. 2020. Ayurvedic Remedies for Covid-19 - A Conceptual Study. *International Journal of Research in Pharmaceutical Sciences*, 11(SPL1):286-291.