

OIL FOR HEALTH.....A MYTH???

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ABSTRACT

Today even though there may have been great therapeutic advances in the health care sector, it is important not to lose sight of basic protocols of patient care. Oil pulling is an age-old process which involves swishing oil in the mouth for oral and systemic health benefits. Dental health care professionals need to include such oral hygiene measures also, at the core of their advice on preventive practices. The aim of this literature is to put light on this age old methodology of oral hygiene and its prospective benefits to general and oral health.

KEYWORDS: Oil pulling; Ayurveda; Sesame oil; Swishing

INTRODUCTION

About 5000 years back when civilization was being formed a major portion of the civilization comprised of ayurveda which deals with health care making use of various plants and herbs and their by-products. Today even though there may have been great therapeutic advances in the health care sector but it is important not to lose sight of basic protocols of patient care. No matter how sophisticated dental techniques and procedures may have become, preventive dentistry remains the foundation of oral health care. Dental health care professionals need to put home oral hygiene at the core of their advice on preventive practices. There are umpteen numbers of indigenous natural medicinal products which deserve recognition for their contribution to improving oral health. The interrelationship between oral and general health is proven by evidence. Severe periodontal disease, for example, is associated with diabetes. The strong correlation between several oral diseases and non-communicable chronic diseases is primarily a result of the common risk factors. Many general disease conditions also have oral manifestations that increase the risk of oral

disease which, in turn, is a risk factor for a number of general health conditions. This wider meaning of oral health has global relevance to leading oral afflictions - dental caries and periodontal diseases and oral cancer. These can be effectively prevented and controlled by an effective plaque control method. In recent years complementary and alternative medicine like oil pulling are gaining popularity over conventional allopathic medicine due to reasons like naturalness of the products, product safety, cost effectiveness, easy availability, ease of its use etc.^[1] Edible oils are a cause for different ailments but these disease can be cured by the same oil. It sounds incredible to find a cure without spending much money and time by going in for oil pulling.^[2] Oil pulling is an age-old process mentioned in ancient scriptures but not many studies have been reported in dental literature. In view of the unavailability of literature about oil pulling, a household agent which can comprehensively prevent plaque induced oral diseases can be introduced.^[3] The aim of this literature is to put light on this age old methodology of oral hygiene and its prospective benefits to general health and oral health as its

main stay. The truth being “if we do not support our desi product, who else will?”^[4]

OIL PULLING

Oil pulling or oil swishing, is a traditional Indian folk remedy that involves swishing oil in the mouth for claimed oral and systemic health benefits.^[4] Oil pulling is an age-old process mentioned in Charaka Samhita and Sushruta's Arthashastra. It's a procedure in Ayurveda. The process is widely recommended in Ayurveda and is called as Kavala Gandoosha/ kavala Graha.^[5] In Ayurveda this process is said to cure about 30 systemic diseases ranging from headache, migraine to hypertension, diabetes, asthma etc. It basically slows down the ageing process. A specific type of oil pulling called “Roopana Gandoosha” has been mentioned in Ashtanga Sangraha and is said to have dental benefits. Oil pulling has been used for many years to prevent decay, oral malodor, bleeding gums, and dryness of throat, and cracked lips and for strengthening teeth, gums, and jaws. It is not a new concept and it has been mentioned in the ancient scriptures. The concept of oil pulling was introduced for the first time to the western world by Dr. F Karach in the 1990s in Russia.^[6]

OILS USED

Various oils like Refined Sunflower oil, Sesame oil, Olive oil etc can be used for Oil Pulling. Liquids from milk, water, extracts of Gooseberries and mangoes have been used for oil pulling.^[2]

TECHNIQUES FOR OIL PULLING

Gandoosha and Kavala Graha are two specialized oral cleansing therapies to treat as well as to prevent oral diseases. Gandoosha involves filling the mouth completely with fluid so that gargling is impossible. In Gandoosha, the oral cavity is filled completely with liquid medicine, held for about 3-5 minutes, and then released. In Kavala Graha, a comfortable amount of fluid is retained with the mouth closed for about 3 minutes, and then gargled.^[7]

PROCEDURE

Step 1: First thing in the morning on an empty stomach and before drinking any liquids (including water), pour exactly one tablespoon of sunflower or sesame oil (or whatever oil you have chosen) into your mouth. It is not recommended to be done at any other time. Children can also do

this with less quantity of oil provided they have control and practice not to swallow the oil.

Step 2: Swish the oil around in your mouth without swallowing it. Move it around in your mouth and through your teeth, as if it was mouthwash (don't tilt your head back to gargle though). You'll find that the oil will start to get watery as your saliva mixes with it. Keep swishing. If your jaw muscles get sore while swishing, you're putting too much into it. Relax your jaw muscles and use your tongue to help move the liquid around the inside of your mouth. When you do this correctly, you'll feel very comfortable. There is no right way or wrong way to swish and pull oil. Do it with very natural movement. Do it gently, not vigorously, in a relaxed manner. If you have the unbearable urge to swallow and if it becomes too unpleasant, spit out and try again. It can be a bit unpleasant at first when you're not used to it, but soon won't be bothersome at all, just like brushing your teeth. When the oil has become saturated with the toxins it has pulled out, it may become whitish and a thinner, milky consistency, depending on the type of oil used, the process is to make the oil swish enough time in your mouth so that it becomes a white thick substance which is an indication of completion of process.

Step 3: As the end of the oil pulling session approaches, Spit the oil out, and then rinse the mouth with warm salt water (Just use normal table salt). Salt water rinsing isn't absolutely necessary, but is very helpful as an antimicrobial and to soothe any inflammation and proven to be effective in rinsing out any toxins which may be left out in the mouth.^[8]

MECHANISM OF ACTION

The exact mechanism of the action of oil pulling therapy is not clear. It was claimed that the swishing activates the enzymes and draws the toxins out of the blood. The bottom line is that oil pulling actually cannot pull toxins out of the blood as claimed because the oral mucosa does not act as a semi-permeable membrane to allow toxins to pass through. The viscosity of the oil probably inhibits bacterial adhesion and plaque co-aggregation. The other possible mechanism might be the saponification or the 'soap-making' process that occurs as a result of the alkali hydrolysis of fat. Sesame oil is a vegetable fat and when it is acted upon by the salivary alkali, like

SYSTEMIC DISEASES CURED BY OIL PULLING	NO. OF CASES
Pain in the body and problems pertaining to neck	758
Allergy and respiratory problems of lungs	191
Skin problems	179
Digestive system	155
Constipation	110
Arthritis and joint pain	91
Heart disease and B.P	74
Diabetes	56
Piles	27
Diseases pertaining to female reproductive system	21
Diseases like polio, cancer, leprosy, poly cystic kidney, neural fibroma, paralysis	72

TABLE 1: SURVEY REPORT CONDUCTED BY ANDHRA JYOTHI 1996 ON OIL PULLING^[9]

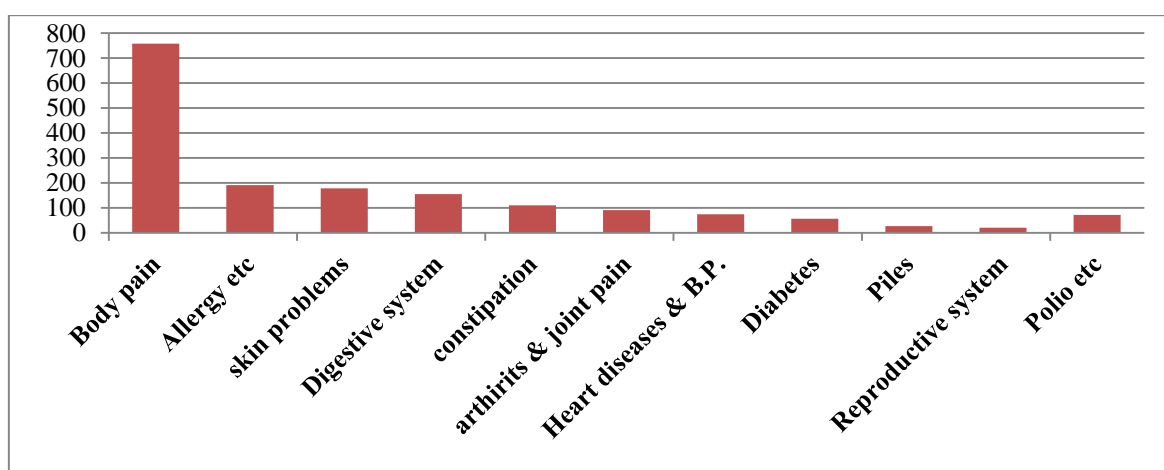


Fig. 1: SURVEY REPORT CONDUCTED BY ANDHRA JYOTHI 1996 ON OIL PULLING^[9]

bicarbonates, the soap making process is initiated. Soaps are good cleansing agents because they are effective emulsifying agents. Emulsification is the process by which insoluble fats like sesame oil can be broken down into minute droplets and dispersed in water. Emulsification is the process by which insoluble fats like sesame oil can be broken down into minute droplets and dispersed in water. Emulsification greatly enhances the surface area of the oil thereby increasing its cleansing action. The unsaponifiable fraction, a class of substances not found in other fats (sesamin or sesamol) can probably protect the oral cavity from infection and inflammation by its antioxidant property.^[9]

ROLE OF OIL PULLING ON GENERAL HEALTH

Health is something that daily; we either accumulate or squander. Oil pulling is one such

way which helps us keep it in a healthy state. The pioneer of oil pulling Dr. Karach, who introduced oil pulling in the conference of oncologists and bacteriologists in UDSSR stated that oil pulling could cure a range of diseases like migraine, headaches, bronchitis, eczema, encephalitis, ulcers, stomach, intestinal disorders, gastroenteritis, peritonitis, diseases of heart, kidney, liver, chronic blood disorders like leukaemia, arthritis and related illnesses. Neurophysiological paralysis, meningitis, chronic sleeplessness and women's hormonal disorders.^[1,8] In 1996 two and half years after continuous publication of a regular column in their Sunday edition on oil pulling. Andhra jyoti a Telugu daily, a survey conducted to find out the types of diseases cured and effectiveness of oil pulling. Out of a total of 1041 respondents 927(89%) reported cure of one or more diseases.

People who did not report any cure were 114% (11%). The analysis indicated cure of the following types of the chronic diseases.^[9]

ROLE OF OIL PULLING IN ORAL HEALTH

Oil pulling has been extensively used as a traditional Indian folk remedy for many years to prevent decay, oral malodor, bleeding gums, and dryness of throat, and cracked lips and for strengthening teeth, gums, and jaws.^[6] The mouth contains a wide variety of bacteria, but only a few specific species of bacteria are believed to cause dental caries: *Streptococcus mutans* and *Lactobacilli* among them. For root caries, the most closely associated bacteria frequently identified are *Lactobacillus acidophilus*, *Actinomyces viscosus*, and *S. mutans*. Bacteria collect around the teeth and gums in a sticky, creamy-colored mass called plaque. The overuse of antibiotics in the treatment of infectious diseases, and the appearance of 'multi-drug resistant' bacterial strains (resistant to two or more antibiotics), has driven research towards the study of essential oils the effects of oil pulling can be described better in the following paragraphs.^[10]

EFFECT OF OIL PULLING ON DENTAL CARIES CAUSING BACTERIA

Dental caries also known as tooth decay or dental cavities is a disease which damages the structure of the tooth. The mouth contains a wide variety of bacteria but only a few specific species cause dental caries: *Streptococcus mutans* and *Lactobacilli* among them. A study done by Dr. T Durai Anand et al. to determine the effect of oil-pulling on the reduction of the total count of bacteria showed an in-vitro anti-bacterial activity of sesame oil against dental caries causing bacteria. The average reduction of the total count of bacteria ranged from 10 to 33.4%, also in this study 50% of the case study persons were converted from marked dental caries susceptibility to slight dental caries susceptibility.^[10]

EFFECT OF OIL PULLING ON PLAQUE AND GINGIVITIS

Plaque-induced gingivitis is the most common form of gingival disease and is the result of an interaction between microorganisms found in the dental plaque biofilm and the tissues and inflammatory cells of the host. The mechanism by

which oil pulling therapy causes plaque inhibition is not known. The viscosity of the oil probably inhibits bacterial adhesion and plaque co-aggregation.^[8] HV Amith et al. tested the effect of oil pulling on plaque and gingivitis and also to monitor its safety on oral soft and hard tissue. It was recorded to have significant statistical reduction in the plaque and gingival scores. He also has stated that oil pulling stands a good chance to be added to other conventional oral hygiene measures.^[3] A study done by Asokan Sharath et al. in the same context was also done with an added aim to compare the efficacy of oil pulling with chlorhexidine mouth wash. He found significant difference between the pre and post values of the plaque and modified gingival index scores.^[8]

EFFECT OF OIL PULLING ON HALITOSIS AND MICRO-ORGANISMS CAUSING HALITOSIS

The terms halitosis, breath malodor, or bad breath are used to denote unpleasant breath odor, nearly 85% of the cases of halitosis have the cause originating from the oral cavity. The exact mechanism of action of oil pulling therapy is still not clear and research in this area is required. Gingivitis, periodontitis, and tongue coating are the predominant causative factors. Dr. Sharath Asokan et al. compared the efficacy of oil pulling with chlorhexidine mouthwash on halitosis and micro-organisms responsible for it. He concluded that oil pulling has been equally effective like chlorhexidine on halitosis and organisms associated with halitosis.^[6]

ADVANTAGES

The question here arises that why are we popularizing oil pulling? Sesame oil has many advantages over standard and commercially available mouthwashes like it causes no staining, it has no lingering after taste and causes no allergic reaction, it is five to six times more cost effective than commercially available mouthwashes and it is readily available in the household.^[4]

DISADVANTAGES

As with any coin, which has two sides even oil pulling has a few apparent dis-advantages. One of them being the amount of time utilized for mouth washing in comparison to the available oral hygiene measures available is more; secondly patient compliance is questionable as this

procedure requires it to be done on an empty stomach in the morning.

CONCLUSION

Though Oil Pulling has resulted in a significant reduction in Plaque and gingivitis, it can't be considered as a replacement for tooth brushing, but can definitely be a supplemental oral hygiene aid. The most objectionable part of this procedure is that, it has to be performed early in the morning, on empty stomach which may cause problems with compliance. The most wonderful part of Oil Pulling is that, it is cost effective and it can be performed using any oil easily available at homes regardless of what socio-economic status a person belongs to. Within the limits of the studies done, it can be concluded that Oil Pulling has the ability to potentially reduce oral diseases. These studies are just the tip of an iceberg and we recommend that further longitudinal studies with larger sample size should be conducted. Research comparing the use of different types of oils for the Oil Pulling procedure, and their effect on oral hygiene are needed. Also microbiological analysis of saliva and plaque if considered will add more internal validity to such studies. Further, studies comparing the effect of various commonly prescribed mouthwashes and Oil Pulling on the oral hygiene are warranted.

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