



DENTAL CARE IN PREGNANCY WITH AYURVEDA

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ABSTRACT

Pregnancy is a unique period during a women's life and is characterized by complex physiological changes, which may adversely affect oral health. At the same time, oral health is key to overall health and wellbeing. During pregnancy, women's body undergoes complex physiological and hormonal changes that can affect oral health and increase the risk of developing gum disease which, in turn, can affect the health of developing baby. Thus, it is very important to take care of teeth and gums while pregnant. The standard Western medicine has had only limited success in the prevention of periodontal disease and in the treatment of a variety of oral diseases. Hence, the search for alternative products continues and natural phytochemicals isolated from plants used in traditional medicine are considered to be good alternatives to synthetic chemicals. Preventive, diagnostic and restorative dental treatment is safe throughout pregnancy. Due to the high prevalence rate, these oral, periodontal and dental diseases continue to be a major threat in India. A glimpse into classical ayurvedic texts

reveals huge potential of many medicinal plants being used. Hence an effective makeshift from synthetic chemicals can be through the medicinal plants mentioned in traditional science which can be serve as a promising approach in prevention and therapeutic strategies of dentistry. A thorough review has been made in the science of Ayurveda regarding the detailed descriptions of oral diseases (Mukha rogas) by various Acharyas with respect to its diagnosis, examination, management and prevention.

KEYWORDS: Pregnancy, Ayurveda, periodontal diseases, Mukha Roga.

INTRODUCTION

Oral diseases ranging from dental cavities to cancer are all serious threats to oral health. Oral health are an integral part of one's overall health. It is a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing. At present, the distribution and severity of these diseases vary among different parts of the world and within the same country or region. The most common oral diseases are dental cavities, periodontal (gum) disease, oral cancer, oral infectious diseases, trauma from injuries, and hereditary lesions. Worldwide, 60–90% of school children and nearly 100% of adults have dental cavities, often leading to pain and discomfort. Severe periodontal (gum) disease, which may result in tooth loss, is found in 15–20% of middle-aged (35-44years) adults.

What is dental health and how does it affects pregnancy-

Dental health is health of mouth, teeth and gums. Oral health is integral to general well-being and relates to the quality-of-life that extends beyond the functions of the craniofacial complex.

Higher levels of oestrogen during pregnancy in the blood lead to a lot of visible changes in the oral cavity-higher incidence of tooth decay, gingival and periodontal inflammation and even some minor benign tumors. Some studies show a link between gum disease and premature birth.

Dental problems during pregnancy-

1. Cavities (tooth decay or caries) - These are small, damaged areas in the surface of teeth. Mother can pass the bacteria that causes cavities to baby during pregnancy and after birth.
2. Gingivitis: it is inflammation (redness and swelling) of the gums. Pregnancy hormones can increase risk for gingivitis. If untreated, can lead to more serious gum disease. signs and symptoms include:
 - redness and swelling
 - tenderness in the gums
 - bleeding through gums even when you brush teeth gently
 - Shiny gums
3. Loose teeth: high levels of progesterone and oestrogens during pregnancy can temporarily loosen the tissues and bones which keep the teeth in place.
4. Periodontal disease (periodontitis or gum disease): if gingivitis left untreated, can lead to periodontal disease. This causes serious infection in the gums and problems in the bones supporting the teeth. Periodontitis can lead to bacteremia, condition which needs immediate treatment.

5. Pregnancy tumours (pyogenic granuloma): they are lumps that form on gums, usually between teeth. Pregnancy tumours look red and raw, and they bleed easily. These tumours usually subside after delivery.
6. Tooth erosion: due to excessive vomiting from morning sickness, the teeth may be exposed to too much stomach acid. This acid can harm the enamel of teeth.

Signs and symptoms of dental problems during pregnancy

- Bad breath
- Loose teeth
- Mouth sores or lumps on the gums
- New spaces between teeth
- Receding gums
- Red, swollen, tender, shiny gums and bleeds easily
- Toothache

Oral Health Assessment and Counselling During Pregnancy

Pregnancy is a “teachable” moment when women are motivated to adopt healthy behaviour. For women of lower socioeconomic status, pregnancy provides a unique opportunity to obtain dental care because of Medicaid insurance assistance with prenatal medical and dental coverage. However, most women do not seek dental care. According to postpartum survey data from the Pregnancy Risk Assessment Monitoring System in 10 states, 56% of mothers did not have dental care and 60% did not have their teeth cleaned during their most recent pregnancy. Most women (59%) did not receive any counselling about oral health during pregnancy. Prenatal counselling about oral health care has been shown to be highly correlated with teeth cleaning during pregnancy.

Teams can be influential in helping women initiate and maintain oral health care during pregnancy to improve lifelong oral hygiene habits and dietary behaviour for women and their families. For example, women with poor oral health may harbour high levels of *Streptococcus mutans* in their saliva. These dental and obstetric bacteria can be transmitted to their infants during common parenting behaviour, such as sharing a spoon.

A simple approach to prenatal assessment can be accomplished by using the questions provided below.

- 1) Do you have swollen or bleeding gums, a toothache, problems eating or chewing food, or other problems in your mouth?
- 2) When was your last dental visit?
- 3) Do you need help finding a dentist?
 - As part of routine counselling, health care providers should encourage all women to schedule a dental examination if it has been more than 6 months since their last examination or if they have any oral health problems.
 - Patients often need reassurance that prevention, diagnosis, and treatment of oral conditions, including dental X-rays (with shielding of the abdomen and thyroid) and local anaesthesia (lidocaine with or without epinephrine), are safe during pregnancy.
 - Conditions that require immediate treatment, such as extractions, root canals, and restoration (amalgam or composite) of untreated caries, may be managed at any time during pregnancy. Delaying treatment may result in more complex problems. Dental procedures can be done during the 4th to 6th months, if required.

- Counselling should include reinforcement of routine oral health maintenance, such as limiting sugary foods and drinks, brushing twice a day with fluoridated toothpaste, flossing once daily, and dental visits twice a year.
- Dental providers often recommend the use of chlorhexidine and fluoridated mouth rinses, and xylitol-containing chewing gum to decrease oral bacteria. No adverse effects have been reported with these products during pregnancy but they have not been studied extensively.
- For patients with vomiting secondary to morning sickness, hyperemesis gravidarum or gastric reflux during late pregnancy, the use of antacids or rinsing with a baking soda solution (ie 1 teaspoon of baking soda dissolved in 1 cup of water) may help neutralize the associated acid.

Ayurveda mentions the diseases pertaining to Mukha rogas (diseases of the face and oral cavity) as Osta roga (diseases of lips), Danta moola roga (diseases of gums), Danta roga (diseases of teeth), Jihwa roga (diseases of tongue), Talu roga (diseases of palate), Gala roga (diseases of throat), Mukha dhi (sarvaja), Ganda roga (diseases of face).

According to Ayurveda imbalance in three doshas, which are vata, pitta, kapha, causes disease. Predicament with kapha dosha leads to dental problems. Many Ayurvedic herbal plants, which were reviewed, possess kapha and vata dosha mitigating properties together with deepana (appetiser), pachana (digestive), ruchya (taste enhancer), vrana ropaka (wound healing and anti-ulcerogenic), rasayana (anti-oxidant), shothahara (anti-inflammatory), krimihara (anti-microbial), raktashodhaka (blood purifier), raktasthambaka (styptic), vedanasthapaka (analgesic) and daha prashamaka (reduces burning sensation). The phytoconstituents which are common in herbal drugs used in Mukha rogas are flavonoids like kaempferol, quercetin, terpenoids, glucosides, saponins, β -sitosterol, steroids, gallic acid, terpenoids, coumarins, vitamin C, tannins, and alkaloids. These drugs possess potent anti-inflammatory, anti-microbial, astringent, antioxidant properties, decrease blood lipids, lower cancer risks, when reviewed according to the modern parameters

Ayurvedic treatment for dental diseases: Ayurveda is effective in the treatment of dental diseases such as bad breath, yellow teeth, dental decay loosening of teeth, bleeding gums, toothache.

- a) Danta Dhavana and danta pavana (cleaning of teeth) - this method is mentioned by ayurvedic Acharya in dincharya (daily routine). A small piece of twig or dattouna with its bark is taken from medicinal plants like Nimba (*Azadirachta Indica*), Arka (*calotropis procera*), Arjun, Dhav etc and is used by crushing the end. These twigs be Kashaya, katu, tikta in taste. According to sushruta, khadira (*Acacia catechu*) is best Kashaya rasa twig, madhuk (*Glycyrrhiza glabra*) is best in madhur rasa twig, Nimba (*Azadirachta indica*) is best in tikta rasa bark and katuki (*picrorrhiza kurroa*) is taken in katu rasa.
- b) Jivha nirlekhana (cleaning method for tongue with the help of scraper) - scrapers should be made up of metals or by twigs, should be of approx. 12 fingers large and curved. clinical evidence found that jivha nirlekhana on daily basis can eliminate aerobic bacteria.
- c) *Gandusha* (gargling) or oil pulling: Oil pulling is an ancient Ayurveda procedure that involves swishing oil in the mouth for oral and systemic health benefits. It is mentioned in the Ayurvedic text *Charaka Samhita* where it is called *Kavala* or *Gandusha* and is claimed to cure about 30 systemic diseases ranging from headache, migraine to diabetes and asthma. Oil pulling has been used

extensively as a traditional Indian folk remedy for many years to prevent decay, oral malodor, bleeding gums, dryness of throat, cracked lips and for strengthening teeth, gums and the jaw. Oil pulling therapy can be done using oils like sunflower oil or *sesame* oil. Oil pulling therapy is very effective against plaque induce gingivitis both in the clinical and microbiological assessment.

- d) Tissue regeneration therapies: In *Avurveda*, the well-known herb, *Amla* (*Phyllanthus emblica*) is considered a general builder of oral health. *Amla* works well as a mouth rinse as a decoction. One to two grams per day can be taken orally in capsules for the long-term benefit to the teeth and gums. *Amla* supports the healing and development of connective tissue when taken internally.

Ayurvedic Herbs for Various Oral Healths Related Problems

They include Clove Oil (*Syzygiumaromaticum*), Aloe (*Aloebarbadensis*), Pepper (*pipernigrum*), Coriander (*coriandrum*), Eucalyptus (*eucalyptus globules*), Turmeric (*Curcuma longa*), Green Tea (*Camellia sinensis*), Onion (*Allumcepa*), Papaya (*caricapapaya*), Potato (*solanumtuberosum*), Garlic (*aliumsativum*), Honey (*ApisMellifera*), Neem (*Azadirachtaindica*), Chewing stick, Lemon (*Citrus*), Olive oil (*oleaeuropaea*), Ginger (*zingiverofficinale*), etc.

CONCLUSION

Regular dental care is a key component to good oral and general health. Despite the lack of evidence that prenatal oral health care improves pregnancy outcomes, ample evidence shows that oral health care during pregnancy is safe and should be recommended to improve the oral and general health of the woman. Improved oral health of the woman may decrease transmission of potentially cariogenic bacteria to infants and reduce children's future risk of caries.

RECOMMENDATION

- Discuss oral health with all patients, including those who are pregnant or in the postpartum period.
- Advise women that oral health care improves a woman's general health through her lifespan and may also reduce the transmission of potentially caries-producing oral bacteria from mothers to their infants.

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