Plants Used for Common Dental Diseases

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ABSTRACT:

The history of dental sciences in ancient India takes us back to remote antiquity. Dental sciences in India are as old as the Vedas and Puranas. Ayurveda is the name the ancient Indians gave to their sciences of medicine.

Dental disease is one of the diseases that affect people globally. Herbal medicine is effective because it interacts with specific chemical receptors within the body. Herbal medicines have fewer side effects than traditional medicines. There is a lack of information about the effect of herbal medicine treatments on dental health. Herbal medicine treatments in dental diseases are used as antibacterial agents, anti-inflammatory agents, sedatives, and anxiolytics. The natural phytochemical could offer an effect on antibiotics and represent an approach to prevention and therapeutic strategies for various dental diseases. Plants active against dental organisms have been listed. This review highlights the role of herbal medicinal and phytochemicals like flavonoids, polyphenols, terpenes, and alkaloids in treating dental health and infections associated with dental care. The purpose of this review is to present some recent examples of herbal medicine that have been shown to inhibit the growth of oral pathogens, reduce the development of dental plaque, and reduce the symptoms of dental diseases. It indicates that plants have the potential to generate herbal medicine.

Key Words: Dental disease; Dental caries, Gingivitis Staining tooth; Herbal medicine;

Dental treatment, etc.

1. INTRODUCTION:

As we approach the era of the 21st century, it is appropriate to glance at advances made in personal oral hygiene. The most common chronic human diseases are dental caries, gingivitis & periodontal disease, toothache, stained teeth, sensitivity, oral ulcer, persistent halitosis, tonsillitis, oral thrush, etc. Their prevalence is undoubtedly higher than in prehistoric times. Realistically, Oral diseases are a major health problem worldwide [11]. Dental caries and periodontal diseases are the most important global oral health problems. However, other conditions like oral and pharyngeal cancers and oral tissue lesions are also of significant concern. Herbs have been used for centuries to prevent and control dental disease. Herbal extracts are effective because they interact with specific chemical receptors within the body. Herbal medicines have fewer side effects than traditional medicines, but side effects do occur. Herbal products can vary in their potency [31]. The global need for alternative prevention and treatment options and products for oral diseases that are safe, effective, and economical comes from the rise in disease incidence increased resistance by pathogenic bacteria to currently used antibiotics and chemotherapeutics, opportunistic infections in immune-compromised individuals and financial considerations in developing countries. Despite several chemical agents being commercially available, these can alter oral microbiota and have undesirable side effects such as vomiting, diarrhea, and tooth staining. Hence, the search for alternative products continues and natural phytochemicals isolated from plants used in traditional medicine are considered good alternatives to synthetic chemicals, herbal products are also being increasingly used as sedatives, or plaque reduction and healthy gums. There are various kinds of serious and purulent gingivitis, mucositis, superficial periodontitis, catarrhal tongue inflammation, toxic oral cavity inflammation, mucosal infections, and difficult healing of post-operative wounds. Herbal medications are also administered to soothe oral symptoms of systemic diseases. Plant compounds can be a powerful land-dominant drug when an inflammation caused by a local irritating factor appears. The most important features of herbal medicament are its anti-inflammatory, antiseptic, analgesic, astringent, edema-reducing, soothing, and healing-accelerate properties [33]. Herbs owe their healing properties to the biologically active compounds they contain. Some of these compounds were isolated and are recommended for treatment or obtained by bio-guided isolation after previously detected characteristic activity of the part of the plant. These compounds are flavonoids, coumarins, iridoid glycosides, phenolic acids, resins, triterpenes, phytosterols, choline, carotenoids, tannins, vitamins and mineral salts (magnesium, iron, lithium) and essential oils. The most popular are flavonoids and essential oils [33, 5]. The natural products derived from medicinal plants such as neem, tulsi, amla, datura, nimbu, etc., have proven to be abundant sources of biologically active compounds, many of which have become the basis for the Herbs in Dentistry [5]. Traditional medicinal plants have been widely used to treat and prevent diseases since ancient times. According to the World Health Organization (WHO), 80% of the world's population, especially people in developing countries, depend on traditional medical practices for some aspect of primary health care [37]. The interest in the use of herbal medicines has been attributed to their good accessibility and the belief that most of them cause fewer adverse effects than conventional drugs [19]. Thus, some of these medicinal plants have been subjected to several recent but limited ethnobotanical surveys in different parts of the country [4.30]

The present work deals with the survey of some medicinal plants used for various dental diseases [3] The work was carried out from February 2022 to June 2022 with the help of tribals of Parner tehsil.

2. MATERIAL AND METHODS:

In the present study, the survey of some dental diseases and the herbs used against those diseases was carried out amongst the tribal people.

2.1 Dental Caries-Dental Caries also called tooth decay or cavities are one of the most widespread persistent diseases which can be preventable. Dental caries (cavities) is caused by the bacterial growth within the cavities which are already accumulated with food remnants. These bacteria break your teeth down and produce acids that can seriously damage the hard tissues of your tooth. The result is the formation of dental caries (cavities). Dentists can treat dental caries as fillings, crowns, root canals, extraction, etc. It can be treated with some herbal products.

2.2.Gingivitis-Gingivitis is the inflammation of the gum tissue surrounding the teeth. This swelling is often caused by the build-up of plaque. If teeth are untreated it can develop into a more severe form of gum disease, known as periodontitis, a major cause of tooth loss in adults. It can be treated professionally by dentists as scaling, and giving advice care at home like brushing teeth at least twice a day, using an electric toothbrush, flossing teeth at least once a day, and regularly rinse mouth with an antiseptic mouthwash. etc. It can be treated by some herbal products [34, 27].

2.3Toothache- Toothache is a pain in or around a tooth that may be caused by tooth decay, abscessed teeth, tooth fractures, damaged fillings, repetitive motions, such as chewing gum or grinding teeth, infected gums, etc. Treatment for toothache depends on the cause. Some herbal products can treat toothache [34].

2.4 Stained Teeth- Many factors, including food and drink choices, oral hygiene, heredity, and medication use, cause teeth stains. Teeth stains occur on the tooth's surface or below the tooth enamel, and some people develop both types of teeth stains. Teeth stains can be removed by cleaning the teeth, scaling or polishing them, tooth bleaching, etc. Some herbal products can also treat teeth stains [27].

2.5 Persistent halitosis-Bad breath or a bad taste in the mouth may be a warning sign of gum (periodontal) disease caused by the buildup of plaque teeth. Bacteria cause the formation of toxins to form, which irritate the gums. The medical condition of dry mouth (also called Xerostomia) also can cause bad breath. It can be prevented by brushing twice a day with fluoride toothpaste, taking dental treatment at least twice a year, stopping smoking, drinking lots of water, etc. It can be treated by some herbal products [34].

2.6 Sensitive Teeth-Also called "Dentine hypersensitivity- is exactly what it sounds like pain or discomfort in the teeth as a response to certain stimuli, such as hot or cold temperatures. It may be temporary or a chronic problem and can affect one tooth, several teeth, or all the teeth in a single individual. It can be cured with the help of a dentist by taking proper medicines. Also treated with home remedies using some plant materials.

2.7 Tooth Abrasion–It is a type of tooth wear.

Abrasion is the progressive loss of hard tooth substances caused by mechanical actions other than mastication or tooth-tooth contacts. It is commonly associated with incorrect tooth-brushing techniques and nail-biting, giving rise to notching the junction of the crown and root of teeth. It can be reduced by adopting a correct tooth-brushing technique. Fluoride and calcium toothpaste also help to cure it.

2.8 Tooth erosion- is a type of tooth wear also called "Bulimia." It is the loss of tooth enamel caused by acid attack. This occurs from stress fractures in the tooth, such as cracks from flexing or bending the tooth. It can be cured by avoiding drinking acidic fruit juices, chewing sugar-free gum after eating, and using fluoride toothpaste [34].

3. RESULT:

The questionnaires made for tribal peoples to cure dental diseases were analyzed. The primary data was collected, enumerated, and depicted. The tribal people gave information about some ethnomedicinal plants, their local names, and their uses in dental diseases.

1.Botanical Name-*Abrus precatorius* L.
Family- Fabaceae
Local Name-Gunj
Plant Part Used-Leaves
Dental Uses- Leaves are chewed to get relief from toothache. [26,36]

2.Botanical Name-*Acacia nilotica* var. Adansonii (Guill. &Perr.) O. Ktze.,
Family-Mimosaceae
Local Name-Babhool
Plant Part Used-Fruit, Bark
Dental Uses-1. The fresh fruit is peeled and crushed together with bark. The resulting mixture may be stored for 4–6 months. The remedy is rubbed sparingly onto the gum or put in the painful tooth every morning before breakfast for 3–4 days or until pain relief is obtained. Some healers recommend avoiding groundnut consumption during the treatment period.
2. A pinch of the powder is put in the decayed tooth cavity or rubbed onto gums and sores twice daily for 7–10 days after meals.
3. A decoction of fruits and leaves is used as a mouthwash to treat gingivitis.
4. A bark decoction prepared in a clay pot is used as a mouth rinse for 3 or 4 days for toothache, gingivitis, and Sores.

3.Botanical Name–*Acacia senegal* (L.)Willd,
Family-Mimosaceae
Local Name-Khair
Plant Part Used-Young leaves and thorns
Dental Uses-Young leaves and thorns are combined with Leaves of *Diospyros mespiliformis* Hochst ex A. DC. (Three or four handfuls of each) and boiled with a black stone. The result is used for inhalations followed by gargles, three or four times until the symptoms disappear and used for toothache.

4.Botanical Name–*Achyranthes aspera*. L
Family-Acanthaceae
Local Name-Aghada
Plant Part Used-Stem
Dental Uses-Stem is used as a toothbrush, and ash of the plant is used as tooth powder; to relieve pyorrhea and Toothache.[4]

5.Botanical Name–*Acorus calamus* L.
Family-Acoraceae
Local Name-Vekhand
Plant Part Used-Rhizome
Dental Uses-Paste of the Rhizome is applied to painful teeth and gums.

6.Botanical Name–*Adansonia digitata* L.
Family-Bombacaceae
Local Name-Gorakhchinch
Plant Part Used-Leaves, Flowers, Bark
Dental Uses-1. Dried leaves are stored for 1–2 years in an airtight container (box or plastic bag) and then pounded and strained. A pinch of the resulting powder is applied sparingly to the gum or put into the cavity of the decayed tooth until complete recovery.
2. Some healers recommend adding a dried snail shell before pounding the leaves for toothache & gingivitis.

3. Dried or burned flowers may be stored for some time. To extract a "dead" tooth, a pinch of powder made from the flowers and put into the decayed tooth was said to be enough to remove the tooth within one day.
4. A mouthwash made from boiled bark is prescribed when the tooth extract is painful or when a decayed tooth disintegrates, despite some side effects, such as the risk of losing other teeth, even healthy ones. Some participants said the efficacy of the remedy could be improved by collecting trunk bark from two opposite sides (generally East and West) or sticking a needle in the trunk before taking the bark for tooth extraction.

7. Botanical Name–Allium sativum L.
Family-Liliaceae
Local Name-Garlic, Lasoon
Plant Part Used-Bulb
Dental Uses-1. The paste of the bulb is applied to the gums and cavities of infected teeth.[11]
2. It is used on direct application to a painful tooth to relieve toothache and treat Gingivitis [2,12]

8. Botanical Name–*Albizia lebbeck* (L.)
Family-Mimosaceae
Local Name-Shirish
Plant Part Used-Leaf, Bark
Dental Uses-1.Leaf decoction is used for inhalation & toothache.
2. Dried bark used as tooth powder [23]

9.Botanical Name–*Alternanthera pungens* H.B. & Kunth.
Family-Amaranthaceae
Local Name-Khaki weed
Plant Part Used-Leaf
Dental Uses: Dried leaves are pounded with millet flour, and the powder is applied to affected gums until gingivitis recovers.

10.Botanical Name–*Anogeissus leiocarpus* (DC.) Guill. & Perr.Siiga
Family-Combretaceae
Local Name-Bambara: ngálăma
Plant Part Used-Leaf, Root & Bark
Dental Uses-1. A handful of resin is placed in a pot with a tightly closed cover and macerated with three or four cups of water and indigenous salt for 7 days before filtration. Cotton wool soaked with the resulting solution is put in the diseased tooth to relieve pain. One application is generally sufficient. Other products can be added to the pot before maceration. A pinch of dried and powered leaf is put into the cavity in case of pain & toothache.
2.Roots and bark can be stored for several years when dried and powered separately. Root powder can be boiled and the liquid can be used to clean gums or sores. Alternatively, a pinch of powder can be applied to sores or bleeding gums twice a day after eating in the morning and at night for a maximum of 10 days to cure gingivitis &sores

11.Botanical Name–*Azadirachta indica* A. Juss.,
Family-Meliaceae
Local Name-Neem
Plant Part Used-Twig, Flower
Dental Uses-1. Twigs are used as chewing sticks for mouth and teeth cleaning for oral hygiene.
2. Tender twigs are used as toothbrushes.
3. Flowers for mouth infections and bleeding of gums. [25,6, 23]

12. Botanical Name–*Balanites aegyptiaca* (L) Del.
Family-Balnitaceae
Local Name-Hingan Bet
Plant Part Used –Fruit, Leaf
Dental Uses-1. Fruit powder obtained by crushing and storing the pit is applied to the bleeding gums or inserted into the cavity of the painful tooth three times per day until recovery of toothache & gingivitis
2. Leaves are boiled alone or with white stones and the decoction is drunk to alleviate tooth pain.

13. Botanical Name–*Barleria prionitis*. L.
Family-Acanthaceae

Local Name-Kate Koranti
Plant Part Used –Root, Leaf
Dental Uses- Roots and leaves are chewed to relieve from tooth decay. [22,1]
14. Botanical Name–*Bombax ceiba* L.
Family-Bombacaceae
Local Name-Saanvar
Plant Part Used –Gum, Bark
Dental Uses-1.Gum is used to treat tooth care.
2. Bark used for toothache [9]
15.Botanical Name–*Boswellia serrata* Roxb. ex Coleb
Family-Burseraceae
Local Name-Salai
Plant Part Used –Root, Bark
Dental Uses-1.Dried bark can be stored for about 5 years and is available in the markets all year round. A decoction is made with either bark or roots. The bark is placed in a clay pot, covered with water, and brought to a boil to prepare a decoction for inhalation and gargles twice a day for 2–10 days. It can be also drunk as a tea to treat sore throat and sinusitis. Honey may be added as a sweetener and to improve drug efficacy. The remedy should be stored for no more than 1 week. To treat abscesses, warm-soaked compresses of the remedy are applied externally on the swelling, toothache, gingivitis, abscess, and sores.
16. Botanical Name–. *Cassia siamea* Lam.,
Family-Caesalpiniaceae
Local Name- Kashid, Kasood.
Plant Part Used –Leaf
Dental Uses- Leaves boiled for inhalation for toothache.
17. Botanical Name–*Cassia tora* Linn
Family-Caesalpiniaceae
Local Name- Tarwad, Takala
Plant Part Used –Leaf
Dental Uses- Leaf decoction is given to children with Teething [17]
18. Botanical Name–*Ceiba pentandra* (L.)
Family-Bombacaceae
Local Name- Pandhari Sawar
Plant Part Used –Leaf
Dental Uses-Mouthwash with decoction until recovery of sores and gingivitis
19.Botanical Name–*Calotropis procera* (Ait) Ait.f. Putrepuugu
Family-Asclepiadaceae
Local Name- Giant milkweed, Pandhari Rui
Plant Part Used –Root
Dental Uses-1.The roots are boiled with white stones and cowry shells and only the decoction is used as a mouthwash to alleviate the tooth pain until recovery.
2. Paste of root is applied as a toothpaste toothbrush to cure toothache Ash of root is used to remove pus from gums.[4]
20. Botanical Name–*Carica papaya* L.,
Family-Caricaceae
Local Name- Popai
Plant Part Used –Leaf, Latex
Dental Uses-1. Leaves boiled for inhalation to cure toothache.[2]
2. Latex is used to cure toothache and mouth ulcers.[1]
21. Botanical Name-*Cinnamomum vernum* J. Pres.
Family-Lauraceae
Local Name- Dalchini
Plant Part Used –Stem bark
Dental Uses-Stem bark juice is applied to the teeth to treat tooth decay and toothache

22. Botanical Name-*Citrus medica* L.
Family-Rutaceae
Local Name- Mahalunga
Plant Part Used –Fruit
Dental Uses- to the high content of Vitamin C, used to treat bleeding gums in Scurvy
23. Botanical Name-*Cocus nucifera* L.
Family-Arecaceae
Local Name- Shriphal, Nariyal
Plant Part Used –Root
Dental Uses-1. Roots are boiled and used as a mouth rinse for treating toothache and tooth sensitivity [2]
2. Decoction obtained from coconut trees is used both as a mouthwash and a gargle [21]. Extracts from this plant have been shown to have antibacterial, antifungal, antiviral, and antioxidant properties [21,7]
24.Botanical Name-*Commiphora africana* (A. Rich.) Engl.
Family-Burseraceae,
Local Name- SaagNoabga, Gugul.
Plant Part Used –Leaf, Fruit
Dental Uses-1.A decoction is made with leaves plus some Zinm and white stones. The decayed tooth is generally lost after one mouthwash, but the treatment may be repeated if necessary for Tooth extraction.
2. Fruits are chewed or pounded and used against toothache and gum diseases.
25. Botanical Name-*Datura stramonium* L.
Family-Solanaceae
Local Name-Datura
Plant Part Used –Seeds
Dental Uses-Seeds mixed with butter are burnt and smoke is inhaled into the mouth. A paste is prepared from the seeds applied for Toothache.[28]
26.Botanical Name-*Eucalyptus globus* Labill. Voy.
Family-Myrtaceae
Local Name- Nilgiri
Plant Part Used – Bark and leaves
Dental Uses-Bark and leaves material is boiled and the vapors are inhaled with the person's head covered for toothache, Alleviate toothache, sore throat, and halitosis [2]
27. Botanical Name-*Ficus benghalensis* L.
Family-Moraceae
Local Name- Banyan Tree, Wad
Plant Part Used – Prop root, Fresh latex
Dental Uses-Prop root is used as a toothbrush. Fresh latex of the plant is applied to treat the bleeding and swelling of gums [13,14]
28. Botanical Name- *Ficus platyphylla* Del.,
Family-Moraceae
Local Name- Gutta Percha Tree, Kamsaogo
Plant Part Used –Roots
Dental Uses- Roots are boiled with white stones and cowry shells for inhalation and mouth washing. Tooth loss generally occurs after 3 months of treatment for tooth extraction.[10]
29. Botanical Name- *Ficus religiosa* L
Family-Moraceae
Local Name-Pimal
Plant Part Used – Tender leaf twigs
Dental Uses- Tender leaf twigs are chewed to cure toothache.[4]
30. Botanical Name-*Ferula asafetida* Linn.
Family-Apiaceae
Local Name-Hing
Plant Part Used-Root
Dental Uses-Extract is used for toothache. [8]

31.Botanical Name-*Gardenia gummifera* Linn.
Family-Rubiaceae
Local Name-Dikemali
Plant Part Used-Bark, Root
Dental Uses-1. For use when there is a cavity. The bark, which must be collected with a stone, is pounded in a mortar with soumbala and indigenous salt that has been dried and crushed. The fine powder is put inside the cavity 2–3 times until the diseased tooth disintegrates. Use for the disintegration of a diseased tooth.
2. The root decoction is used to treat sores. Lip sores
32.Botanical Name-*Gossypium herbaceum*
L.
Family-Malvaceae
Local Name-DevKapus, Kapus, Kapas
Plant Part Used-Seed
Dental Uses- Burned seed powder/ash is used for toothache [18]
33. Botanical Name-*Hyptis spicigera* Lam.,
Family-Lamiaceae
Local Name-Jungle tulas
Plant Part Used-Leaf
Dental Uses-Small quantity of crushed leaves is put in a spoon with water and set aside for a while. The patient lies on his back for administration. To alleviate tooth pain located on the right side, the remedy is introduced into the left nostril, and vice versa for pain on the left to cure toothache.
34. Botanical Name-*Indigofera tinctoria* L.
Family-Fabaceae
Local Name-Neel Plant
Plant Part Used-Root, Leaf
Dental Uses-1. Roots are pounded in a mortar with a little water, salt, and soumbala (a foodstuff made with Parkia biglobosa) and made into small pieces. When dried, the resulting pellets can be stored for about 6 months. They are placed in the cavity to relieve dental pain.
2. Leaves and roots are dried and stored in plastic bags for several months. A decoction can then be made with tobacco (*Nicotiana tobacum*.) leaves or powder and used as a gargle twice a day after meals for 7–10 days. Fresh roots are boiled to make a mouthwash for toothache, gingivitis, and sores.
35. Botanical Name-*Juglens regia* L
Family-Juglandaceae
Local Name-Akroda
Plant Part Used-Oil and fruits
Dental Uses- Oil and fruits are used in making traditional tooth powder to cure toothache and pyorrhea.
36. Botanical Name-*Justicia adhatoda* L.
Family-Acanthaceae
Local Name-Adulsa
Plant Part Used-Twig of plant
Dental Uses-The twigs of the plant are used as toothpicks/brushes to treat Pyorrhea
37.Botanical Name-*Lavandula bipinnata* L.
Family-Lamiaceae
Local Name-Deepmal
Plant Part Used-Leaf
Dental Uses-Leaf paste is applied to gums for toothache [29]
38. Botanical Name-*Lucas aspera* Spreng.
Family-Lamiaceae
Local Name-Tamba
Plant Part Used-Leaf
Dental Uses-The leaf is used for toothache and gum infection [32]
39. Botanical Name-*Mangifera indica* L.
Family-Anacardiaceae

Local Name-Mango, Amba, Aam)
Plant Part Used-Small stem, Latex
Dental Uses-Toothbrush of a small stem is used to cure toothache; latex is applied to relieve Gingivitis. [4,1]
40.Botanical Name-*Maytenus senegalensis* (Lam.) Exell.
Family-Celastraceae
Local Name-Henkal, Hekal
Plant Part Used-Bark. Leaf, Root
Dental Uses-1. The bark and leaves are dried separately, pounded, and strained. The fine powder obtained is stored in a bottle or other airtight container and used for at least 5 years. In cases of gingivitis or sores, a small amount of the powder is rubbed onto the painful site twice a day (morning and evening) until recovery, generally, for about 7–10 days.
2. A decoction of roots and leaves is prepared and stored only for the treatment period, namely 2–3 days. It is used for inhalations and mouthwashes, in the morning on waking and after the evening meal to relieve pain.
3. A bark decoction is also used as a gargle until recovery from pain. the bleeding and cure the sores, toothache, and gingivitis.
41.Botanical Name-*Myrica esculenta* Buch. Ham.ex D. Don
Family–Myricaceae
Local Name-Kaiphal or Kataphala
Plant Part Used-Bark.
Dental Uses- The bark is chewed to relieve toothache.
42. Botanical Name- *Nicotiana tobacum* L.,
Family – Solanaceae,
Local Name- Tobacco, Tambakhu
Plant Part Used-Leaf
Dental Uses-1. Leaves are stored dried or powered. Used alone, a pinch of tobacco powder placed in the cavity of a painful tooth or on bleeding gums will immediately alleviate the ailment.[2] 2. 2. Mixed with Zinm and shea butter, a small amount is regularly applied to the painful area until recovery.
3. Fresh leaves can be boiled with Zinm to make a mixture that should not be stored for more than 6 months. Cotton wool impregnated with this product is put into the cavity twice daily (morning and evening) for a maximum of 7 days to cure toothache and gingivitis.
43.Botanical Name- *Ocimum sanctum* Linn.
Family – Lamiaceae
Local Name- Tulas
Plant Part Used-Leaf
Dental Uses-Powder of dry leaves with salt is applied to painful teeth.
44.Botanical Name- *Phyllanthus emblica* L.
Family – Euphorbiaceae
Local Name-. Ambala, Amla
Plant Part Used-Fruit
Dental Uses-Fruits are used as mouth fresheners and for tooth decay. [35, 24]
45.Botanical Name-*Prosopis africana* (Guill. & Perr.) Family- Mimosaceae
Local Name-. Shami
Plant Part Used-Bark
Dental Uses- Dried bark is pounded and applied to bleeding Gums and for gingivitis.
46. Botanical Name -*Pterocarpus erinaceus* Poir.
Family- Fabaceae
Local Name-. Bibwa, Biba
Plant Part Used-Bark
Dental Uses- Trunk bark from two opposite sides is boiled with cowry shells for inhalation and gargles to cure toothache.
47. Botanical Name - *Punica granatum* L

Family- Punicaceae
Local Name-. Anar, Dalimb
Plant Part Used-Fruit
Dental Uses- Fruit is useful in bleeding gums caused due to scurvy.
48. Botanical Name - *Ricinus communis* L.
Family-Euphorbiaceae
Local Name-Erand
Plant Part Used-Tender shoot, Leaf, Seed.
Dental Uses-1. Tender shoots are used as toothbrushes in dental caries.
2. Leaf juice is used to gargle in Pyorrhea.
3. Cotyledon is fried in mustard oil and the smoke emitted by this process is inhaled for toothache [4]
49. Botanical Name - *Sterculia setigera* Del.
Family-Sterculiaceae
Local Name-Jungli Dragon, Nettle, Stinging Nettle
Plant Part Used-Bark.
Dental Uses-1. The bark is used either fresh or dried. Dried bark can be stored for some time. Boiled bark is used for inhalation or mouthwash twice a day for 2–3 days. The hot decoction can be drunk against sore throat and sinusitis.
2. In case of an abscess, a piece of boiled bark is lightly rubbed on the swelling cheek regularly until the abscess matures.
50. Botanical Name - *Syzygium aromaticum* (L.)
Family- Myrtaceae
Local Name-Clove, Lavang
Plant Part Used-Fruit
Dental Uses-Clove oil containing eugenol is effective for toothache and is used as an analgesic for dental emergencies and other disorders. [2, 21]
51. Botanical Name - *Tamarindus indica* L
Family- Fabaceae
Local Name-Chinch, Imli, Amli
Plant Part Used-Leaf, Bark.
Dental Uses-1.Leaves are boiled as a mouthwash to heal lesions and sores.
2. Bark powder is used as tooth powder.[25]
52. Botanical Name - *Vitex negundo* L.
Family-Lamiaceae
Local Name-Nirgudi
Plant Part Used-Leaf,
Dental Uses -A leaf is used as a mouthwash to relieve toothache.
53. Botanical Name - *Vitellaria paradoxa* CF Gaertn.,
Family -Sapotaceae
Local Name-Shea
Plant Part Used-Bark
Dental Uses-Trunk bark is taken from two opposite sides. Bones (preferably from beef) and red pepper (three or four of each according to sex) are placed between two large pieces of bark and covered with Zinm before being brought to a boil. The warm mixture is stored in a clay pot and used for regular mouthwashing until the abscess matures.

2. The bark is boiled with white stones and crushed bones and used as a warm gargle. for toothache, the bark is more effective when removed from a tree that has fallen naturally rather than one that has been intentionally collected (By a person) for toothache

54. Botanical Name-*Zanthoxylum piperitum* Mill.
Family - Rutaceae
Local Name-Tirphal, Chirphal
Plant Part Used-Fruit
Dental Uses—Fruit powder is used as a remedy for toothache, and small twigs of branches are used to treat toothache.

55. Botanical Name - *Zea mays* L.,
Family -Poaceae
Local Name-Maize, Maka
Plant Part Used-Flower.
Dental Uses: The decoction made with flowers, Indigenous salt, and white stones are used as a mouthwash and for toothaches.

56. Botanical Name - *Zingiber officinale* L.
Family -Zingiberaceae
Local Name-Adrak, Ale
Plant Part Used-Rhizome
Dental Uses-A paste of rhizomes is applied to the teeth to treat toothache and tooth decay.

3. DISCUSSION-

The medicinal plants find application in the pharmaceutical, cosmetic, agricultural, and food industries. The use of medicinal herbs for curing disease has been documented throughout all civilizations. Before the onset of the synthetic era, man was completely dependent on medicinal herbs to prevent and treat diseases. With the introduction of scientific procedures, the researchers have concluded that the plant contains active principles responsible for the curative action of the herbs. After reviewing, there is considerable evidence that plant extracts and purified phytochemicals have the potential to be developed into agents that can be used as preventive or treatment therapies for oral diseases such as dental caries.

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