Review on: Herbs are Beneficial in Cosmetics

Author: Miss. Shravani Nandkishor Kshirsagar*1
Co-author : Mrs. Pagire Dipali M.*2
[1*]Student At Pratibhatai Pawar College of Pharmacy,
[2*]Assistant professor At Pratibhatai Pawar College of Pharmacy Shrirampur

ABSTRACT

Bacterial and fungal skin infection in people they cure infection in also maintain healthy skin herbs. They play an important role. Herbal plant extract processes various potentials having anti-inflammatory, antifungal antibacterial properties. One of the advantages of herbal soap for formulation is that it is used not only for treating microbial infection but also for using it on a daily basis. Soaps are disinfectants required for hygienic point daily practices. Soaps as cleansing agents may be liquid, semisolid or powder. Some herbs have pleasant odour as well as therapeutic action. Man uses plants in many ways to need food, clothing and shelter. Plants are medicinal craft and cosmetically use Murrya koenigii. It is an important part used to make soap making ingredients. The essential oil from curry leaves is use antibacterial effect against B.substilis, C.pyrogens, Pasteurella multi eid, P.vulgaris, and staph aureus .The pure oil of M.koenigii was active against the first three organisms even at a dilution of 1:500. Magnifera indica is a mango plant that can have one of the additional ingredients in essential making soap that cleans itself from dirt, bacteria and germs. Mango plants are easily found in various regions so it is an essay found. Soap has benefits for the skin and also gives fragrance. Fenugreek is widely used as in ancient times. It Was used for the treatment of wounds, ulcer digestive problem fenugreek obtained from trigonella foenum-graecum Linn. The plants are widely used for medicinal purposes and play an important role in cosmeceuticals and food. Syzygium Cumini Ayurvedic properties and pharmacological properties of syzygium cumini have a benefit for human skin, hair and oral care because of the presence of phytoconstituent. Syzicum cumini each originated from India or the east indies. Ficus Religiosa methanol and chloroform extract form ficus religiosa leaves completely shown for antibacterial and antifungal effect.

Keywords:
Herbs, Antibacterial, Antioxidant, extraction, evaporation, Herbal soap.

LITERATURE REVIEW

1. Infectious diseases are one of the major problems in developing as well as developed countries. Traditional medicinal plants are widely used to treat the microbial diseases due to their rich source of antimicrobial activity and less cost. The different plant parts such as seed, fruit, root, bark, stem, leaf and even the whole plant were extracted using different solvents like ethanol, methanol, chloroform, acetone, petroleum ether, alcohol, and ethyl acetate. These extracts were tested by diffusion method against gram positive, gram negative bacteria and fungi to assess their antimicrobial activity. This review provides lucid data of nearly 5 traditional medicinal plants with antimicrobial activity and this would open up the scope for further analysis of medicinal plant extracts to develop effective antimicrobial drugs.
2. Infectious diseases are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi. Diseases can spread, directly or indirectly, from one person to another. Infectious diseases are the second leading cause of death worldwide. About one-fourth of all the medicines we use come from rainforest plants. However, scientific studies have been conducted only to a limited extent with few medicinal plants. The development of bacterial resistance to presently available antibiotics has necessitated the search of new antibacterial agents. In rural and backward areas of India, several plants are commonly used as herbal medicine for the treatment of infectious diseases. Four such plants commonly used by the people of the area were screened for potential antibacterial activity.
3. Murraya koenigii also known as a curry-leaf tree is used as a medicinal plant in India. In the present study, different phytochemicals were extracted and tested against Bacillus cereus, Pseudomonas aeruginosa and Staphylococcus aureus by agar well diffusion method. Alkaloid, carbohydrate, tannins, terpenoids were present in all extracted samples, however cardiac glycosides and phlobatannins were extracted only in methanolic and ethanolic extracts of plant leaves sample.In all solvent extract from leaves of M. koenigii and minimum activity was recorded at 25 ppm of plant extract concentration. Maximum antibiotic activity was recorded with aqueous extract of leaves against S. aureus. In the case of P. aeruginosa, all extracts failed to show antibacterial activity.

INTRODUCTION

Man uses plants in many ways to need food, clothing and shelter. plants are medicinal crafts and cosmetic use. Most developing countries still rely on plant based medicines for primary care World Health Organisation 1978. The different system of medicine in India Ayurveda, Siddha and Unani local health tradition utilise a larger number of plants for the treatment of human and animal diseases. India has a traditional system of medicine. Medicinal plants having biologically active compounds are helpful in improving the life and treatment of disease. Compounds are carbohydrate, protein, fats, oils, enzymes, phenolic compounds etc. Its plants are used in treating certain infectious diseases and management of chronic wounds. Demand for herbal products is caused by awareness of herbal products,

and the high cost of modern medicine (1). Medicinal plants are cheaper. Most of the easily available need to encourage the use of medicinal plants. A big source of new drugs so highly increases interest in verbal remedies. In the pharmaceutical field, medicinal plants are used for the wide ranges of chemical constituents present. These plants have been used to treat chronic infection as well as infectious disease. According to the World Health Organisation [WHO] medicinal plants the Best source to obtain a variety of drugs 80% of the world population depends on traditional medicine(2). Infectious diseases, particularly skin infections, are common. An important group of These skin pathogens are fungi and bacteria. Commercially antimicrobial drugs are commonly used in treatment of infectious diseases(3). Antibiotics are a most important type of antimicrobial substance that is active against bacterial life. Antibacterial agents for fighting bacterial infections. Antibiotic medicines which are used for destroying bacteria inhibit the growth of bacteria reproducing and spreading.

List of Herbs

Murrya Koenigii (Curry leaves)

Mangifera indica (Mango leaves)

Trigonella Foenum-Graecum (Fenugreek Seeds)

Syzygium Cumini (Jamun leaves)

Ficus Religiosa (Peepal leaves)

Murraya koenigii (M. koenigii) (L) Spreng is known as "curry leaf" (Family: Rutaceae). M. koenigii is widely distributed in the tropical and subtropical regions of the world. Of the 14 species in the world of the genus Murraya, only two of them, M. koenigii and M. paniculate, in India. M. koenigii is more important because of many traditional medicines. Different parts of M. koenigii such as leaves, roots, bark and seeds are known to contribute to various biological activities. Aromatic bioactive compounds in M. koenigii leaves retain their taste and other qualities even after drying. M. Koenigii leaves have a slightly bitter, aromatic and slightly acidic nature. Green leaves M. koenigii is used in the treatment of haemorrhoids, inflammation, stroke, fresh wounds, dysentery, cuts and edema.

The roots are clean to some extent. They have a stimulating effect and are used to treat general body pain. The bark helps treat snake bites. Essential oil extracted from the leaves of M. In animal models, koenigii has been reported to have antioxidant, hepatoprotective, antibacterial, antifungal, anti-inflammatory, and renoprotective activities. Clinical features of M. koenigii contain many carbazole chemical alkaloids and other important metabolites such as terpenoids, flavonoids, phenols, carbohydrates, carotenoids, vitamins and niacin from different parts of the M. koenigii plant [22].

The mango is the king of fruits, because of its variety, it is famous all over the world. Delicious and healthy. Surprisingly, cassava leaves are also very useful for health. Technically, mango leaves are known as Mangifera Indica. According to Ayurveda and traditional Chinese medicine, mango leaves have been used medicinally for thousands of years. The benefits of cassava leaves are so diverse and numerous that they are essential in oriental medicine. Mango leaves are rich in vitamins such as vitamin C, vitamin A and vitamin B. It also contains other

compounds such as steroids, alkaloids, riboflavin, thiamine, phenols, beta-carotene, flavonoids, etc. Mango leaves are rich in terpenoids and polyphenols. A plant compound that protects the body from infections and fights inflammation. [23]

Mango oil is rich in essential omega-9 acids and used in cosmetics, it nourishes and keeps the skin soft, supple and healthy. In cosmetics, the blue plant - rich in anti-microbial, anti-radicals and antioxidants, is used to protect the skin from harmful UV rays. Mango leaf extract can reduce fine lines, signs of ageing, and dry skin. It aids in the production of collagen, thereby reducing facial wrinkles and fine lines. Mango leaves contain anti-inflammatory properties that help treat skin infections like staph and skin burn [24].

Fenugreek (Trigonella foenum-graecum L.) is commonly used in Ayurveda and Traditional Chinese Medicine due to its many health benefits. Its leaves and seeds contain many compounds (such as alkaloids, amino acids, coumarins, flavonoids, saponins, polyphenols, carbohydrates, vitamins and other bioactive compounds). Fenugreek is used to treat reproductive health problems, liver symptoms, and improve digestion. Studies have shown that it has anti-cancer, cardioprotective, anti-infertility, antibacterial, antiparasitic, antihelminthic and neuroprotective properties. Many studies on animals and humans have shown fenugreek's effectiveness against a variety of diseases [25].

Fenugreek plants may have a single or branch stem base; it has an erect growth habit and a strong, sweet aroma. The plant grows to a height of about 3f. It has 3 parts leaves, the long slender stem bear tripartite, toothed, grey-green abovate leaves 20-25 mm long. Leaflets about 2.5 cm long seeds are small, high mm long brownish yellow in colour [11].

Many herbs in India are used medicinally and cosmetically. Cloves and cumin are one of the substances that have been used in medicine and Ayurveda since ancient times. Jamun is a common evergreen tree native to India. Jamun, whose scientific names are Eugenia jambolana Lam and Syzygium cumini Linn, belongs to the Myrtaceae family. Different parts of clove such as bark, seeds, leaves, fruits have been used as anti-diabetic, antibacterial, antifungal, anti-inflammatory, etc.

Ficus Religiosa most popular plant of the genus ficus, various parts of the plant leaves, seeds and bark are used in indigenous systems of medicine. It has various pharmacological activities anti ulcer, antibacterial, anti-inflammatory, antioxidants etc(19). Ficus religiosa Linn. Known as "peepal tree". They have widely branched trees, heart-shaped, ong tipped leaves on long slender petioles and purple fruits growing in pairs. It belongs to the class of drug rasayana. Ficus religiosa are divided into four sections, which are ethnopharmacology, Morphology, Phytochemistry and pharmacological studies.

The leaves of Ficus Religiosa are used to treat Constipation is used as multipurpose such as gastric problems, asthma cough, diarrhoea. In addition, use of Ficus religiosa is used to memory enhancing activity.

MURRYA KOENIGII

Murrya koenigii play an important role in various uses in traditional systems of medicine. The leaves And roots are bitter acrid if your piles and itching crushed leaves are applied extremely to cure skin eruption and relieve burns. Murrya koenigii is an aromatic or small tree up to 6 m in height. It is found in India up to an altitude of 1, 500M. The plants grow in tropical and subtropical climates in semi- shades locations. The plants have a small amount of fertiliser. All parts of this plant have a strong characteristic odour. Murrya koenigii having carbazole alkaloids namely murrayanine (4), girinimbine (6), koenine alkaloids are o-methyl murrayamine, bispyrayafoline.Their leaves are fair source of vitamin A. Rich source of calcium but due to presence of oxalic acid. Its nutritional availability is affected. The amino acids present in the leaves are aspartic acid, glutamic acid, tyrosine and tryptophan. The major constituents of Curry leaves are : cotyledons[86%], monoterpenes [70%], pinene [52%]. Green part of the Curry leaves are febrifuge and use in dysentery and roots and bark stimulants are applied externally for skin corruptions and poisonous bites. The pastes of leaves are externally applied to skin to treat bites of poisonous animals. Curry leaves use cleaning the teeth used as a dantum strength gums and teeth.

Curry leaves are the most popular leaf – spice used in small quantities for their distinct aroma due to the presence of volatile oil and the ability to improve digestion. The leaves have a slightly pungent, bitter and acidic taste. The curry leaves are also used in many Indian ayurvedic and unani prescriptions. It is an important part of soap making ingredients, lotions, massage oil, air fresheners, body fragrance, perfume oil, aromatherapy products, bath oils, spa‟s, facial steams, hair treatment, and etc (4).

Fig. 1 MURRYA KOENIGII

- **Morphological Characteristics:**

A small shrub about 2.5 metre high and then steam, dark green to brownish in colour. It is a bark that can be peeled off longitudinally murraya koenigii belong to family rutaceae, common name of Curry tree is native in Sri Lanka, India and South Asian countries Myanmar, southern China and Hainan. It is found everywhere in India having aromatic nature or trees up to 6M height and 15 -40 Cm diameter. Most part of the plant is covered with fine down and has pediaculiar smell.

- **Taxonomy classification**

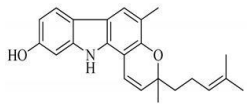
Kingdom : Plantae
Family : Rutaceae
Genus : Murrya.J. Koenigii ex.L
Species : Murrya koenigii C. Spreng
Class : Magnoliopsida (5)

- **Leaves**:

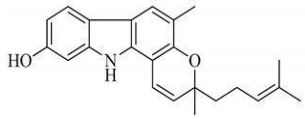
Leaves are bipinnately compound 50-30 Cm long each bearing having 11-25 leaflets. Margins irregularly create petioles 2-3 mm long flowers are bisexual, white, funnel shaped, sweetly scented, regular with average 1.12 cm inflorescence. Terminal cymes each hearing 60-90 flowers. Compounds are carbohydrates, protein, fats, oils, enzymes and phenolic compounds etc. Plants are used in treating certain infectious diseases and management of chronic wounds. Fruits have size 2-5 CM long and 0.3 CM diameter and purplish black fruits are biseedeed. The seeds generally have spinach green colour 11M long, 8M in diameter and weigh up to 445 mg (6).

- **Chemical Constituents:-**

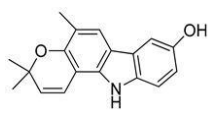
1. Isomahanine



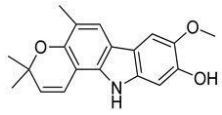
2. Mahanine



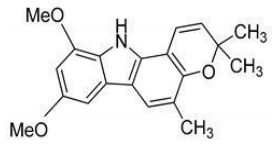
3. Koenine



4. Koenigine



5. Mukonicine



- **Antibacterial Activity:**

The essential oil from Curry leaves uses antibacterial effects against B.substilis, C. pyrogens, pasteurella multi eid, P. vulgaris, and staph aureus. The pure oil of M. koenigii was active against the first three organisms even at a dilution of 1: 500 (7)

- **Antifungal Activity:**

The essential oil of Curry leaves shows an antifungal effect against. C. albicans A. Niger, microsporum gypseum. It was effective against C.albicans at dilution of 1: 500 It ethanolic extract showed fungi toxicity against Colletotrichum Falcatum and Rizzo tonia Solani(8).

- **Extraction Procedure:**

1. M.koenigii freshly collected and washed with fresh water for 2-3 times and dried under the shade at room temperature.
2. Electrical blend is used to make powder and this powder is passed through a 2 mm sieve and stored in a sterile air tight container for further use.
3. Extraction of M. Koenigii leaves sample was done in three different solvent. viz distilled water, 100% methanol and 100% ethanol.
4. For this purpose,10 g of dry powdered leaves was placed in conical flask of 250 ml capacity and 100 ml of different solvent viz.water, methanol and ethanol were added separately.
5. Flasks were tightly sealed with a polythene sheet and vigorously shaken for 48 hrs.
6. Extract was filtered using muslin cloth first to Then. Followed By whatman filter paper.
7. The filter is stored in an airtight sample bottle in a refrigerator at 4ºc until required.

- **Skin Disease:**

Curry leaves fight free radicals in the skin, making your skin soft and healthy. The antibacterial properties and presence of vitamins A and C in curry leaves make this herb very beneficial for the skin. Curry leaves can also be used to clear acne. Using curry leaves and turmeric paste can help reduce acne and curry leaves, multani mitti and rose water paste can remove facial wrinkles. This will help increase the whiteness and brightness of your face (26).

- **Other Use:**

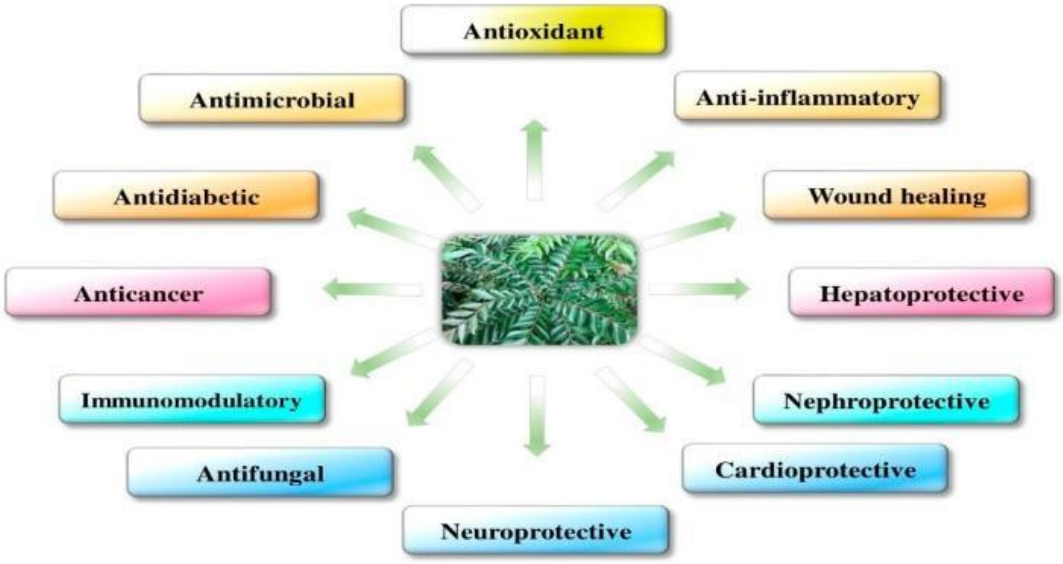


Fig. 2 Uses of MURRYA KOENIGII

MANGIFERA INDICA

Mango leaves vary in terms of size, shape and colour of the leaves mango plants(mangifera indica L.) plant as herbal medicine they contain secondary metabolic compounds. Mango plants are rarely used. The mango plant can have one of the additional ingredients in essential making soap that cleans itself from dirt, bacteria and germs. Mango plants are easily found in various regions so it is easy to find.

Soaps that have benefits for the skin and also give fragrance. The process for formation is known as saponification. Mango leaf extract has been containing terpenoids, alkaloids and tannins. Mango plant leaves are antioxidants, antimicrobials and antitumour. Mangaluru zar is extracted using methanol as a solvent. In this study to compare two methods of the soft making process they are:

1) Cold process

2) Hot process

Fig. 3 MANGIFERA INDICA

- **Morphological Characteristic:**

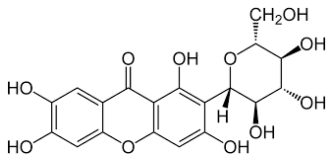
The leaves are without stipules and alternate with petioles. I-I2cm [0.4-5in] long. The leaves are various shapes and sizes but usually are oblong with tips caring from rounded to accuminate. Mature leaves are dark green with a shiny upper surface and glabrous lighter green lower surface leaves turning tan-brown to purple during the leaf expansion and changing to dark green as the leaves mature. Colour of the young expanding it varies with variety can be light tan to deep purple this widely used to distinguish ing character among varieties.

- **Taxonomical Classification:**

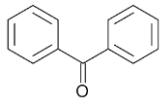
Kingdom : Plantae
Subkingdom :Tracheobionta
Class : Magnoliopsida
Subclass : Rosidae
Order : Sapindales
Family : Anacardiaceae
Genus : Magniffera
Species : M.Ind

- **Chemical Constituents:-**

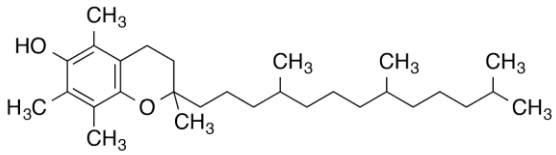
1. Mangiferin



2. Benzopenone



3. Flavonoids
4. Ascorbic Acid
5. Terpenoids
6. Alkaloids
7. Tannin
8. Tocopherol



- **Morphological characteristics of Leaves:**

The leaves are without stipules and alternate with petioles. I-I2cm [0.4-5in] long . The leaves are various shapes and sizes but usually are oblong with tips caring from rounded to accuminate. Mature leaves are dark green with a shiny upper surface and glabrous lighter green lower surface leaves green turning tan-brown to purple during the leaf expansion and changing to dark green as a leaves mature.color of the young expanding it varies with variety can be light tan to deep purple this widely use to distinguish ing character among varieties.

- **Antibacterial and antifungal activity:**

In an in-vitro agar diffusion technique, mangifera showed activity against seven bacterial species, bacillus pumillus, B.cereus Staphylococcus aureus, S. citreus Eacherichia coli, Salmonella agana, K le bsiella pnemoniae, L yeast (Saccharomycescerevisiae) and four fungi (Tthermoascus aurantiaceus, Trichodermaressei, aspergillus flavus and A fungiatus) (9)

- **Extraction Procedure of Mangifera Indica:**

1. Mangifera indica wash with distilled water dirt and air-dried to constant weight for 5 days.
2. The dried leaves were then blended using a household electrical blender.

3. Leaf powder was stored in five sealed labelled reagent bottles for further use.
4. The bioactive compounds were extracted using the methods of akerele et at (2008) with slight modification.
5. One hundred millimetres (100ml) each of methanol, acetone and water- ethanol [1:1] were added onto 10g portions of the leaf powder in separate sterile conical flasks and allowed to soak at ambient temperature for 72 hrs.
6. The extract were the filtered using whatman no 1 filter paper and the filtrates concentrated in vacuo at 40ºc using a rotary evaporator(10).

- **Skin Disease**

Mango leaf extract can reduce fine lines, signs of ageing, and dry skin. It aids in the production of collagen, thereby reducing facial wrinkles and fine lines. Mango leaves contain anti-inflammatory properties that help treat skin infections like staph and skin burn(27).

- **Other Uses**
  1. Antibacterial activity
  2. Antifungal activity
  3. Anticancer activity
  4. Antidiabetic activity
  5. Antiviral activity
  6. Anti-amoebic activity
  7. Anthelmintic activity
  8. Antimalarial activity
  9. Radio protective
  10. Immunoregulation
  11. Cardio protective
  12. Osteoporosis prevention
  13. Recognition of memory
  14. Bronchodilatory
  15. Laxative
  16. Anti-inflammatory activity
  17. Hepatoprotective
  18. Anti-hemorrhagic activity
  19. Analgesic and Antipyretic

20. Kidney damage
21. Anti-ulcer activity
22. Lipid profile
23. Anti Bone resorption
24. Anti-diarrheal activity

TRIGONELLA FOENUM-GRAECUM

Fenugreek is an old medicinal plant. It has been common used as traditional food and medicine. The first use of fenugreek is described on an ancient Egyptian papyrus dated to 1500 BC. A widely used as in ancient times. It was used for the treatment of wounds, ulcer digestive problems (11). Fenugreek obtained from trigonella foenum-graecum Linn. The plants are widely used medicinal purpose it play important role in cosmoceuticals and food. It cold season crop. It also grow in black cotton soils having main components are flavonoids, polysaccharides, fixed oils, protein, amino acids, vitamins and some identified alkaloids its belong to family leguminosae natural sources of food flavouring the name of genus trigonella, dired from Greek name,denoting three-angled. Most of the having triangular shaped of the flower.

Fig.4 TRIGONELLA FOENUM-GRAECUM

- **Morphological Characteristics:**

Fenugreek plants may have a single or branch stem base; it has an erect growth habit and a strong, sweet aroma. The plant grows to a height of about 3f. It has 3 parts leaves, the long slender stem bear tripartite, toothed, grey-green abovate leaves 20-25 mm long. Leaflets about 2.5 cm long seeds are small, high mm long brownish yellow in colour.

Plant height	: 30-60cm (about 3 feet)
Leaves	: 20-25mm
Flowers	: 1-2

Seeds : 5mm long
Sword shaped pods : 10-15cm
Odour : Spicy
Taste : Bitter
Plant mature in : About 4 month

- **Taxonomical Classification:**

Kingdom : Plantae
Family : Fabaceae
Genus : Trigonella
Species : Foenum-graecum Linn
Order : Fabales (13)

- **Chemical Constituents:-**

1. Flavonoids
2. Proteins
3. Amino Acids
4. Vitamins
5. Polysaccharides

- **Leaves:**

The leaves contain 7 saponins also known as graecunins. These compounds are glycosides of diosgenin. Leaves contain moisture 86.1%, protein 4.4 %, carbohydrates 6%, fibre 1.1%, minerals 1.5 % and other niacin, thiamine, phosphorus. Mineral and vitamin content are calcium, iron thiamine, riboflavin(12).

- **Antibacterial Activity of Fenugreek Plants:**

The microbial activity of fenugreek plants was determined against the E-coli staphylococcus by the well diffusion method. Well diffusion method was measure the inhibition zone to know the antimicrobial activity of fenugreek(14).

- **Extraction Procedure of Trigonella foenum-graecum:**

1. The roots of the plant Trigonella foenum-graecum were cut,the leaves of the plant were washed thoroughly using tap water, washed by a distilled water for two to three times.
2. The leaves were allowed to dry under the shade for three to four days. The obtained dry leaves were grinded well and made into powder.

3. The leaf of fenugreek powder was used for the preparation of the leaf extract. 5gm of powder was taken and 200 ml of the distilled water in a clean 500ml beaker.
4. It was stirred continuously at 60ºc for an hour, cooled to room temperature and filtered using whatman filter paper. The colour of the extract was observed to be pale green.

- **Skin Disease**:

Acne and scars are the most common problem, especially among young people. As a result of acne breakouts, your skin becomes damaged and looks dull. Fenugreek seeds contain diosgenin, which has antibacterial and anti-inflammatory properties. This product helps the skin to fight acne. It also destroys white radicals in our body that are responsible for dull, dark and diseased skin (25).

- **Other Uses**

1. Weight loss
2. Skin health
3. Hair health
4. Digestion
5. Arthritis treatment
6. Exercise performance
7. May benefit diabetes patients
8. May Help-treat eating disorders
9. May treat high cholesterol and heart disease
10. Possible treatment and prevention of cancer
11. Promotes milk flow in breastfeeding mothers

SYZYGIUM CUMINI

Syzygium cumini is one of them which have been used from ancient Time in pharmacology and ayurveda. Jammu is a common big evergreen beautiful tree of the Indian subcontinent. It's a very useful approach to be in the food, pharmaceutical and cosmetic industries for colourants and beneficial to human health. Ayurvedic properties and pharmacological properties of syzygium cumini have a benefit for human skin, hair and oral care because of the presence of phytoconstituents. Syzygium cumini Each originated from India or the East Indies. It is found in Thailand, Philippines and some other countries.

Syzigicum cumini belongs to the family myrtaceae. It is a large green part of a tree height up to 30m and girth of 3-6m. With boles up to 15m found it grows in India up to an altitude of 1,800m³. Widely used trees of Jambolana are used in the traditional system of medicine (15).

Fig. 5 SYZYGIUM CUMINI

- **Morphological Characteristics**

It is a Long live big Evergreen tree, with a height of up to 25 to 30 metres. And the trunk has 3-4 metre circumference with a semi spreading crown up to 10 metre. It is a thick and greyish white in colour. Branches are wide, spreading and bent at the ends.

- **Taxonomical Classification:**

Kingdom : Plantae
Division : Angiosperms
Sub division : Eudicots
Order : Myrtaceae
Family : Relirtaceae
Genus : Syzygium
Species : Cumini
Binomial name : Syzygium cumini (L)skeels(17**)**

- **Chemical Constituents:**

1. Quercetin
2. Kaempferol
3. Myricetin
4. Triterpenoids
5. Tannins

- **Antibacterial activity :**

Syzigicum cumini contain phytoconstituents like tannin, flavonoids, phenols, alkaloids, terpenoids which can provide cosmetic properties due to which it can be used in various cosmetic products. Syzigicum cumuni essential leaf oils were tested for their antibacterial activity (18).

- **Extraction Procedure of Syzygium cumini:**

1. The leaves were collected and were shade dried.
2. The powdered and extracted in soxhlet apparatus successively with methanol and aqueous respectively due to their nature of polarity.
3. After extraction of the hexane and aqueous extracts filtered.
4. They threw whatman no.1 filter paper and stored it for further use.

- **Skin Disease:**

Prevents Aging: Jamun has antioxidant properties that can prevent free radicals and produce collagen which is essential for preventing the early signs of ageing. Treats Scars and Blemishes: Jamun greatly helps with skin regeneration. The application of jamun seed powder onto the skin can fade off scars and blemishes (28).

- **Other Uses:**

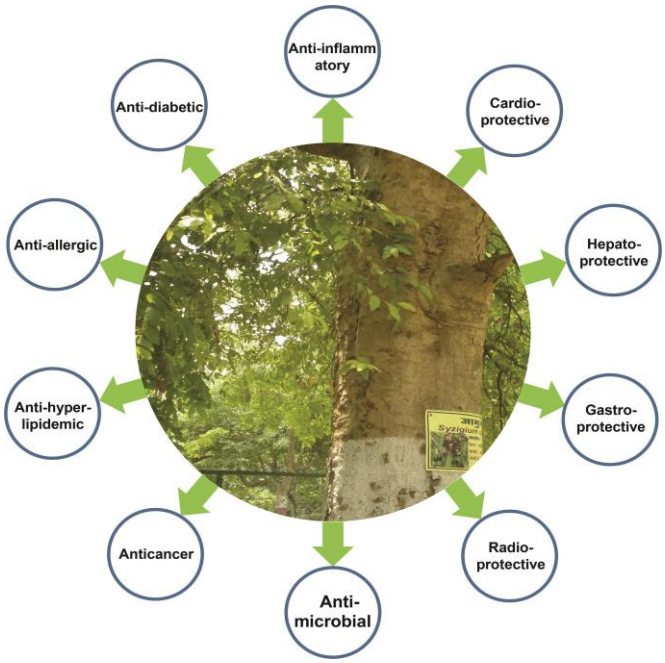


Fig. 6 Uses of Syzygium cumini

FICUS RELIGIOSA

Ficus Religiosa most popular plant of the genus ficus, various parts of the plant leaves, seeds and bark are used in indigenous systems of medicine. It has various pharmacological activities anti ulcer, antibacterial, anti-inflammatory, antioxidants etc(19). Ficus religiosa Linn. Known as "peepal tree". They have widely branched trees, heart-shaped, ong tipped leaves on long slender petioles and purple fruits growing in pairs. It belongs to the class of drug rasayana. Ficus religiosa are divided into four sections, which are ethnopharmacology, Morphology, Phytochemistry and pharmacological studies. It plays an important role in maintaining human health and improving the quality of human life. The leaves contain tannic acid, serine aspartic acid, glycine, proline, tryptophan, methionine, raline, leucine.

Fig. 7 FICUS RELIGIOSA

- **Morphological Characteristics:**

Ficus religiosa is a large tree with few or no aerial roots. Leaves are bright green and apex produced linear – lanceolate tail about half as the main portion of the blade. It is flat in shape, slightly curved, varying from 5 to 8 mm in thickness. The leaves of Ficus Religiosa are used to treat Constipation is used as multipurpose such as gastric problems, asthma cough, diarrhoea. In addition, use of Ficus religiosa is used to memory enhancing activity.

Pharmacology activities:

Antioxidant.

Antimicrobial property.

- **Morphological Characteristics of Leaves:**

The leaves of Ficus Religiosa are used to treat constipation and are used as multipurpose such as gastric problems, asthma, cough diarrhoea. In addition, use of ficus religiosa is used to memory enhancing activity(20).

- **Taxonomical Classification:**

Botanical name : Ficus Religiosa
Kingdom : Plantae
Class : Magnoliopsida
Order : Urticles
Family : Moracin
Genus : Ficus
Marathi name : Pipal tree
English name : Pimpal

- **Chemical Constituents:**

1. Phenols
2. Tannins
3. Lanosterol
4. Steroids
5. Alkaloids
6. Vitamin K
7. Stigmasterol
8. Octacosanol

- **Antibacterial activity:**

Aqueous and ethanolic extracts of ficus religiosa leaves are used to show antibacterial activity. It show effect against bacterial life such as staphylococcus aureus, salmonella paratyphi, shigella dysenteriae, s.typhimurium, pseudomonas aeruginosa, bacillus substillis, s.aureus, Escherichia coli, s.typhi.aqueous, methanol and chloroform extract form ficus religiosa leaves completely showed for antibacterial and antifungal effect.

The chloroform extract of it possesses a broad spectrum of antibacterial activity with a zone of inhibition of 10-21 mm. The methanolic extract shows moderate antibacterial effect against a few bacterial strains. There was minimum

antibacterial activity.It‟s extract was found to be active against Aspergillus Niger and Penicillium Notatum. The extracts of leaves are a variable inhibitory effect against microorganisms.

- **Antifungal Activity:**

The ethanolic extract of ficus religiosa leaves are used to show antifungal effect against candida albicans.

- **Extraction Procedure:**

1. The fresh and green leaves of F.religiosa were collected**.**
2. The leaves were rinsed with tap water and then after with distilled water to remove dust particles and other impurity.
3. The rinsed leaves then air dried for 1-2h. After that, approximately 20g of leaves were cut into fine pieces.
4. And then put into a 250 ml conical flask which contains 100 ml of distilled water.
5. Boil the flask for 1hr at 50ºc on a magnetic stirrer. After that 1 hrs. cooled the extract and filtered through the whatman -no.1 filter paper and stored the leaves filtrate for further use.

- **Skin Disease:**

An infusion or decoction of the bark is used with some honey for the treatment of gonorrhoea, ulcers, skin diseases and scabies. Its power bark has been used to heal the wounds for years (29).

- **Other Uses**

1. Anthelmintic activity
2. Antioxidant activity
3. Wound- healing activity
4. Anticonvulsant activity
5. Anti- microbial activity
6. Hypoglycemic activity.
7. Immunomodulatory activity
8. Hypolipidemic activity
9. Anti- inflammatory activity

CONCLUSION :

In Conclusion, various studies on antimicrobial activity of herbal plant extracts showed that the various solvent extracts showed promising antimicrobial activity against bacterial and fungal pathogens. The result of various herbal researchers also indicated that scientific studies carried out on medicinal plants having traditional claims of effectiveness might warrant fruitful results. These plants could serve as a useful source of new antimicrobial agents. Soaps are essential cleaning agents used to remove germs and disrupt microbial cell membranes. Dettol and Savlon have antibacterial activity, helping reduce skin infections. However, prolonged use can lead to microbial resistance and allergic reactions. This study aimed to identify antimicrobial activity of antiseptic and herbal soaps. Antiseptic soaps kill pathogens, but prolonged use should be avoided. Herbal soaps show similar antimicrobial activity.

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