A Review on Some Traditional Medicinal Plants

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ABSTRACT- Medicinal plants have been used from the Vedic era. For thousands of years, they have been used to treat and prevent many types of diseases along with epidemics. Some medicinal plants also utilized as pleasant condiments, to flavor, to dye, for conserve food etc. Almost every portion of the plant has own medicinal properties. Different types of secondary metabolites found in the medicinal plants which play an important role in many kinds of diseases and also used for manufacturing medicines. A large number of the plants are also reported to possess many other activities like anti-oxidant, anti-inflammatory, anti-insecticidal, anti-parasitic, antibiotic, anti-hemolytic properties etc, also used widely by the tribal people all over the world. The traditional medicinal uses of 21 plants species belonging to different families are reported in this review article.

Key-words- Traditional medicine, Medicinal plants, Anti-oxidant activity, Antimicrobial compounds

INTRODUCTION

The therapeutic potential of plant products can be traced back to over five thousand years ago as there is evidence of its use in the treatment of diseases and for revitalizing body systems in Indian, Egyptian, Chinese, Greek and Roman civilizations [1]. In India, plants of therapeutic potential are widely used by all sections of people both as folk medicines in different indigenous systems of medicine like Siddha, Ayurveda, and Unani and also as processed product of pharmaceutical industry [2]. India has about 4.5 million plant species and among them estimated only 250,000-500,000 plant species, have been investigated phytochemically for biological or pharmacological activity [3]. The bioactive constituents or plants extracts may be uses for treatment of various diseases and these would be used as a new formulation for the novel drugs discovery in pharmaceutical industries [4]. Herbal medicines such as Brahmni and Ashwagandha help boost one’s energy level, increase nutrients, restore body cells, and enhance a person’s immunity [5]. Medicinal and aromatic plants can play an important role in the subsistence livelihood enhancement rural people, especially women in an environmentally sustainable manner while maintaining the biodiversity of these natural products [6]. Today according to the World Health organization (WHO), as many as 80% of the world’s people depend on traditional medicine for their primary healthcare needs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases. Due to fewer communication means, poverty, ignorance and unavailability of modern health facilities, most people especially rural people are still forced to practice traditional medicines for their common day ailments [7]. Medicinal Plant is of the great of the health of individual and communities. The medicinal value of plants lies in some chemical active substances that produce define physiological action on the human body [8]. Plants are considered as a rich source of bioactive chemicals and they may be an alternative source of mosquito control agents [9]. Secondary metabolites or phytochemicals from plants have eminent pharmacological activities such as anti-oxidative, anti-allergic, antibiotic, hypoglycaemic and anti-carcinogenic. These secondary metabolites protect the cells from the damage caused by unstable molecules known as free radicals [10]. There are growing interests in using natural antimicrobial compounds, especially extracted from plants, for the preservation of foods. There is therefore the need to search for plants of medicinal value [11]. However, the knowledge as well as awareness on the herbal remedies is held by elder males and females of between the age group of 41-70 years. Now, decline in the use of the medicinal plants by the new generation may gradually lead to the fading away [12].

Medicinal values

* Abrus precatorius Linn.- *Abras precatorius* plants have grown to development under encouraging circumstances, their deep roots are extremely difficult to

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remove, and the plant's aggressive growth, hard-shelled seeds, and ability to sucker, renders an infestation extremely difficult to eradicate and makes it very difficult to prevent re-infestation. Herbicides such as glyphosate are effective but need skilled application if they are not to do more harm than good.\[13\]

**Aegle marmelos (Linn.) Correa.** The bael tree contains furcoumarins, including xanthotoxol and the methyl ester of alloimperatorin, as well as flavonoids, rutin and marmesin; a number of essential oils; and, among its alkaloids, á-fargarine(allocryptopine), O-isopentenyhofordin, O-methylhafordinol \[14\]. Bael fruit is one of the blessings from environment for the mankind, which is filled with enormous medicinal advantages. All parts of this tree from stem, bark, root; leaves and fruit at all stages of maturity have medicinal value and have been used as medicine for a long time. Tree of the Bael is a blessed tree and it has numerous therapeutic properties, some of their realistic applications are still under evaluation. Apart from the activity listed above there is little more important activity. The leaves of *Aegle marmelos* are useful in the treatment of jaundice and leucorrea, conjunctivitis and defenses. Fruits give energy and nutrition. It is used in the carminative and astringent and also a good remedy for snake bite \[15\].

**Allium sativum Linn.** Fresh or crushed garlic yields the sulfur-containing compounds allin, ajoene, diallyl polysulfides, vinylthiin, S-allylcysteine, and enzymes, saponins, flavonoids, and Maillard reaction products, which are not sulfur-containing compounds.

**Aloe barbadensis Mill.** *Aloe vera* is used on facial tissues where it is promoted as a moisturiser and anti-irritant to reduce chafing of the nose. Cosmetic companies commonly add sap or other derivatives from *Aloe vera* to products such as makeup, tissues, moisturizers, soaps, sunscreens, incense, shaving cream, or shampoos.\[16\]

**Butea monosperma Linn.** *Butea monosperma* is used for timber, resin, fodder, medicine, and dye. The wood is dirty white and soft and, being durable under water, is used for well-curbs and water scoops. Spoons/Ladles made of this tree are use in a variety of Hindu rituals to pour Ghee into the fire. Good charcoal can be obtained from it.

**Calotropis procera R. Br.** The milky sap contains a complex mix of chemicals, some of which are steroidal heart poisons known as "cardiac aglycones". These belong to the same chemical family as similar chemicals found in foxgloves (*Digitalis purpurea*). The steroidal component includes an hydroxyl group in the C3β position, a second attached to the C14 carbon, a C/D-cis ring junction and an α,β-unsaturated-γ-lactone in the C17 position.

**Carica papaya Linn.** Papaya ripe fruit is regularly eaten raw, without skin or seeds. The unripe green fruit can be eaten cooked, usually in curries, salads, and stews. Green papaya is used in Southeast Asian cooking, both raw and cooked \[17\]. Papaya skin, pulp, and seeds enclose a multiplicity of phytochemicals, including polyphenols and carotenoids,\[18\] as well as benzyl isothiocyanates and benzyl glucosinates, with skin and pulp levels that increase during ripening.\[19\] Papaya seeds also contain the cyanogenic substance prunasin.

**Cuscuta reflexa Roxb.** *Cuscuta reflexa* is known to contain a number of alpha-glucosidase inhibitory compounds. A new flavanone- reflexin, tetrahydrofuran derivatives and a coumarin have been cut off from the *Cuscuta reflexa* plant stems. Methanol extracts of the stem reportedly demonstrated anti-steriodiogen and antibacterial activities. In Ayurvedic medicine, the *Cuscuta reflexa* plant is said to be useful in diseases of eye and heart \[20\]. The stems in decoction are useful in constipation, flatulence, liver complaints and bilious affection.

**Hibiscus rosa-sinensis Linn.** It may have some potential in cosmetic skin care for example, an extract from the flowers of *Hibiscus rosa-sinensis* has been shown to function as an anti-solar agent by absorbing ultraviolet radiation.\[21\]

**Mentha spicata Linn.** *Mentha spicata* is used for its aromatic oil, referred to as oil of spearmint. The mainly abundant compound in spearmint oil is R-(-)-carvone, which gives spearmint its distinctive smell. Spearmint oil also contains significant amounts of limonene, dihydrocarvone, and 1,8-cineol.\[22\] Unlike oil of peppermint, oil of spearmint contains minimal amounts of menthol and menthone. It is used as a flavour for tooth paste and confectionery, and is occasionally additional to shampoos and soaps. Used as a fumigant, spearmint essential oil is an effective insecticide against adult moths.\[23\]

**Nerium oleander Linn.** *Nerium oleander* has historically been measured a poisonous plant since some of its compounds may exhibit toxicity, especially in animals, when consumed in large amounts. Among these compounds are oleandrin and oleandrinigen, known as cardiac glycosides, which are known to have a narrow therapeutic index and can be toxic when ingested.

**Acacia mormelos Linn.** Lemons are a rich source of vitamin C, providing 64% of the Daily Value in a 100 g serving. Other essential nutrients, however, have insignificant content. Lemons contain numerous phytochemicals, including polyphenols, terpenes, and tannins.\[24\] As with other citrus fruits, they have significant concentrations of citric acid (about 47 g/l in juice).\[25\]

**Mimosa pudica Linn.** *Mimosa pudica* contains the toxic alkaloid mimosine, which has been found to also have antiproliferative and apoptotic effects. *Mimosa*
Pudica’s seeds produce mucilage made up of D-glucuronic acid and D-xylose.\textsuperscript{[26]}  

Syzygium cumini (Linn.) Skeels.- Unani and Chinese medicine for digestive ailments. Vinegar and wine are also prepared from the fruit. It has a high source of vitamin A as well as vitamin C\textsuperscript{[27]}.  

Evolvulus alsinoides Linn.- This herb used in traditional medicine of East Asia for its purported psychotropic and nootropic properties.\textsuperscript{[28]} Although such claims are not medically verified. Chemical compounds isolated from E. alsinoides include scopoletin, umbelliferone, scopolin and 2-methyl-1,2,3,4-butanetetrol.\textsuperscript{[29]}  

Dalbergia sissoo Roxb. Ex. DC.- Ethanolic extract of the Dalbergia sissoo fruits exhibited molluscicide effect against the freshwater snail Biomphalaria pfeifferi eggs.\textsuperscript{[30]}  

Curcuma longa Linn.- In Ayurvedic and Siddha practices, turmeric has been used as an attempted treatment for a variety of internal disorders, such as indigestion, throat infections, common colds, or liver ailments, as well as topically, to cleanse wounds or treat skin sores.\textsuperscript{[31]}  

Tagetes erecta Linn.- The dried flower petals, ground to a powder is used in poultry feed to ensure a good colouration of egg yolks and broiler skin, especially in the lack of well-pigmented yellow maize in the feed.\textsuperscript{[32]}  

This is still a use today, but now regularly in the form of an extract which may have advantages of lower transport and storage cost, better stability and better utilization. It is also used to enhance coloring in crustaceans\textsuperscript{[33]}.

Withania somnifera Linn. Dunal- The plant’s long, brown, tuberous roots have been used for centuries in traditional Indian medicine.\textsuperscript{[34-35]} In Yemen, where it is known as ubab,\textsuperscript{[36]} the dried leaves are ground to a powder from which a paste is made and used for burns and wounds.\textsuperscript{[37]} Leaves of the Withania somnifera plants used in Joint pain\textsuperscript{[38]} and Reduce swelling\textsuperscript{[38]}.  

Bacopa monnieri (L.)- Bacopa has been used in the customary Ayurvedic treatment for asthma and epilepsy.\textsuperscript{[39]} It is also used in Ayurveda for ulcers, tumors, ascites, enlarged spleen, inflammations, leprosy, anemia, and gastroenteritis.\textsuperscript{[40]} The plant is useful as a treatment for many health complications. Some of the uses of the plant include reducing anxiety and stress, neutralizing allergic reactions, treating indigestion, and boosting a person’s memory.\textsuperscript{[41]}  

Ficus racemosa Wau. Cat.- Ficus racemosa Linn. (FR) (Family Moraceae) is one of the plants mentioned in the ancient scriptures of Ayurveda. Different parts of F. racemosa (fruits, bark, as well as root) are used in folk medicine for the treatment of numerous diseases including diabetes mellitus. Experimental studies have demonstrated the anti-inflammatory, hepatoprotective and hypoglycemic effects of the F. racemosa\textsuperscript{[42]}.  

A: Abrus precatorius Linn.  
B: Aegle marmelos (Linn.) Correa.  
C: Allium sativum Linn  
D: Aloe barbadensis Mill.  
E: Butea monosperma Linn.  
F: Calotropis procera R. Br.
Fig. 1: Photographs of the traditionally used some Medicinal plants
Table 1: Traditional medicinal plants used in the treatment of human and animals ailments

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Family</th>
<th>Used Part</th>
<th>Habit</th>
<th>Plant Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Abrus precatorius Linn.</td>
<td>Ghunchu</td>
<td>Fabaceae</td>
<td>Leaves</td>
<td>Shrub</td>
<td>Leaf juice is mixed with coconut oil and applied over the painful swellings of the body</td>
</tr>
<tr>
<td>2.</td>
<td>Aegle marmelos (Linn.) Correa.</td>
<td>Bel</td>
<td>Rutaceae</td>
<td>Fruit</td>
<td>Tree</td>
<td>Half of a ripe fruit is eaten twice a day for 3-4 days to cure constipation</td>
</tr>
<tr>
<td>3.</td>
<td>Allium sativum Linn.</td>
<td>Lahshun</td>
<td>Amaryllidaceae</td>
<td>Bulb</td>
<td>Herb</td>
<td>3-4 cloves are taken raw twice a day for a week to get relief from stomach pain and gastric</td>
</tr>
<tr>
<td>4.</td>
<td>Aloe barbadensis Mill.</td>
<td>Gwarpatha</td>
<td>Liliaceae</td>
<td>Leaf pulp</td>
<td>Herb</td>
<td>About 2 teaspoons of juice is taken thrice a day for 3-4 days to cure fever</td>
</tr>
<tr>
<td>5.</td>
<td>Butea monosperma Linn.</td>
<td>Palas</td>
<td>Fabaceae</td>
<td>Root</td>
<td>Tree</td>
<td>Root are used in tuberculosis</td>
</tr>
<tr>
<td>6.</td>
<td>Calotropis procera R. Br.</td>
<td>Madar</td>
<td>Asclepiadaceae</td>
<td>Latex of whole plant</td>
<td>Shrub</td>
<td>The latex is useful in the treatment of the ringworm and skin disease</td>
</tr>
<tr>
<td>7.</td>
<td>Carica papaya Linn.</td>
<td>Papita</td>
<td>Cariaceae</td>
<td>Latex of fruit</td>
<td>Tree</td>
<td>Latex fruit is used in ringworm and eczema</td>
</tr>
<tr>
<td>8.</td>
<td>Cuscuta reflexa Roxb.</td>
<td>Amarbel</td>
<td>Convolvulaceae</td>
<td>Whole plant</td>
<td>Parasitic Herb</td>
<td>Juice of the plant mixed with juice of Saccharum officinarum is given in doses of about 3-4 teaspoons twice a day is given for 10-12 days to treat jaundice</td>
</tr>
<tr>
<td>9.</td>
<td>Hibiscus rosa-sinensis Linn.</td>
<td>Gudhal</td>
<td>Malvaceae</td>
<td>Root</td>
<td>Shrub</td>
<td>Juice of the root about 3 teaspoons is given 3 times a day for 3-4 days in case of cough and cold</td>
</tr>
<tr>
<td>10.</td>
<td>Mentha spica Linn.</td>
<td>Pudina</td>
<td>Lamiaceae</td>
<td>Leaf</td>
<td>Herb</td>
<td>2-3 teaspoons of leaf juice is given thrice a day for 3-4 days to treat bloody dysentery</td>
</tr>
<tr>
<td>11.</td>
<td>Nerium oleander Linn.</td>
<td>Kaner</td>
<td>Apocynaceae</td>
<td>Latex of plant</td>
<td>Tree</td>
<td>Latex applied on muscles pain of limbs</td>
</tr>
<tr>
<td>12.</td>
<td>Acacia mormelos Linn.</td>
<td>Babool</td>
<td>mimosaceae</td>
<td>Flower</td>
<td>Tree</td>
<td>Flower powder mixed with water is given orally to animal twice a day to cure jaundice</td>
</tr>
<tr>
<td>13.</td>
<td>Mimosa pudica Linn.</td>
<td>Lajwanti</td>
<td>Mimosaceae</td>
<td>Roots and leaves</td>
<td>Herb</td>
<td>Roots and leaves are crushed and filtered; one teaspoon of filtrate is taken with water twice a day to cure loose motion</td>
</tr>
<tr>
<td>14.</td>
<td>Syzygium cumini (Linn.) Skeels.</td>
<td>Jamun</td>
<td>Myrtaceae</td>
<td>Bark</td>
<td>Tree</td>
<td>Crush its bark with the bark of bamura (Acacia catechu) in equal amount and filter it. Take 5 ml. of filtrate with 5 ml. water twice a day in gripping and indigestion</td>
</tr>
<tr>
<td>15.</td>
<td>Evolvulus alsinoides Linn.</td>
<td>Shankkahuli</td>
<td>Convolvulaceae</td>
<td>Leaves</td>
<td>Herb</td>
<td>20-25 leaves are crushed and mixed in 200 ml. whey and taken orally twice a day for 2 days in gripping</td>
</tr>
<tr>
<td></td>
<td>Species</td>
<td>Family</td>
<td>Part Used</td>
<td>Medicinal Use</td>
<td></td>
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<tr>
<td>16</td>
<td>Dalbergia sisso Roxb. Ex. DC.</td>
<td>Fabaceae</td>
<td>Leaves</td>
<td>Tree</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Leaf paste mixed with water is given to animal twice a day to cure blisters and leg sore</td>
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<tr>
<td>17</td>
<td>Curcuma longa Linn.</td>
<td>Zingiberaceae</td>
<td>Rhizome</td>
<td>Herb</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Rhizome powder with rock salt and pure ghee is to cure the swelling of nipple for animals</td>
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</tr>
<tr>
<td>18</td>
<td>Tagetes erecta Linn.</td>
<td>Asteraceae</td>
<td>Flower</td>
<td>Herb</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Powder mixed with water is given to animals to cure hydrophobia</td>
<td></td>
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</tr>
<tr>
<td>19</td>
<td>Withania somnifera Linn. Dunal</td>
<td>Solanaceae</td>
<td>Root</td>
<td>Herb</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Given to animals to cure retard plaenca</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Bacopa monnieri Linn.</td>
<td>Plantaginaceae</td>
<td>Leaves</td>
<td>Herb</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Boosting memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Ficus racemosa Wau. Cat.</td>
<td>Moraceae</td>
<td>Root</td>
<td>Tree</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>The sap of root is given in diabetes</td>
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</table>

**CONCLUSIONS**

From the above study we conclude that plants have a very versatile life style. Every part of the plant is serving as a boon for all living ones all over the universe. In the present minor review project, these 21 medicinal plants studied for the treatment of many diseases of human beings along with animals diseases such as stomach pain, constipation, piles, dysentery, jaundice, diabetes, fever, asthma, menstrual disorders, snake bite, skin diseases etc. These plant species include both wild and cultivated ones. Majority of the medicinal plants were herbs than shrubs trees and climbers respectively. And the part of the plants which used for medicinal purpose was leaves, root, flower, bark, fruits, rhizome etc.

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