Review on Ficus Racemosa’s Phytocostituent, Phytonutrient & Traditional Uses

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Abstract

In world, number of medicinal plant are used for treatment of several ailment, disease or body disorders. India, Australia, and Southeast Asian countries are the countries where species of plant Ficus Racemosa are found. Ficus Racemosa have great importance in traditional system of ayurveda. Ficus Racemosa is one of the popular medicinal plant which belongs from family moraceae. Fruits, leaves, stem bark, roots are the parts of Ficus Racemosa used to treat ailments. Ficus Racemosa contains various phytoconstituents which is necessary for treatment of diseases. Ficus Racemosa show various pharmacological activities including antibacterial activity, anti-inflammatory activity, antitussive activity, antidiuretic activity, antiulcer activity, antioxidant activity, anticancer activity, antipyretic activity, antihyperglycemic activity. In this review, emphasis on detailed information of Ficus Racemosa therapeutic activities as well as plant description.

Keywords: Ficus Racemosa, Taxonomy, Phytoconstituents, Phytonutrients, Traditional Uses, Pharmacological Potential

Introduction

The Moraceae family is prominent group of plants which has contain medicinal properties. Ficus Racemosa has many vernacular names in local languages such as Gular and Umar in hindi, Umbar in marathi, Umar and gular in gujrati, Athi in telangana and kannada language and other so as. It is also called
as Cluster fig and Ficus glomerata as well as Udumbara \cite{1}. Fruits, leaves, stem bark, roots, latex, seed of Ficus Racemosa are used for therapeutic effect. Ficus Racemosa has Astringent taste and Aromatic, Pleasant odour \cite{2}. Ficus Racemosa (Udumbara) is one the of the plant which is considered as lord Dattguru in Hinduism. This plant contains various phytoconstituents such as $\beta$-sitosterols, $\alpha$-amyrin, flavonoids, tannins, glauanol, etc are useful for treatment of several diseases. This plant is used in following disorders such as haemorrhoids, diarrhoea, diabetes, menorrhagia, gonorrhoea, mumps, small pox, etc \cite{3}.

Taxonomical Classification \cite{1,2}
Kingdom – Plantae
Sub-kingdom – Tracheobionta
Clade – Angiosperms
Division – Magnoliophyta
Superdivision – Spermatophyta
Class – Equisetopsida
Subclass – Hamamelididae
Order – Rosales, Urticales
Family – Moraceae
Genus – Ficus
Species – Ficus Racemosa Linn

<table>
<thead>
<tr>
<th>Plant Part</th>
<th>Chemical Constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root</td>
<td>Cycloartenol, Euphorbol, Steroids, Saponins, Alkaloids, Tannins, Flavonoids, Taraxerone, Tinyatoxin.</td>
</tr>
<tr>
<td>Stem</td>
<td>Campetsterols, Henriciacontane, Henriciacontanol, $\beta$-Sitosterol, Kaempferol,</td>
</tr>
</tbody>
</table>

Figure 2. Ficus Racemosa Tree
α-Amyrin acetate, Glauanol acetate, Stigmasterols, Lupeolactate, Methyl ellagic acid.

Leaves
Tetra triterpene, Tannins, Alkaloids, Flavonoids, Racemosic acid, Phenolic compound, Glauanolacetate.

Fruits
Alkaloids, Flavanoids, Steroids, Tannins, Phytosterol, Tiglic acid, Lupeolactate, Glauanol, Glauanolacetate, β-Sitosterol Friedelin.

Latex
α-Amyrin, β-Sitosterol, Euphorbinol, Isoeuphorbinol, Cycloartenol, Palmitic acid, Taraxerol, Tinyatoxin, Trimethylellagic acid.

Table 1. Phytoconstituents

<table>
<thead>
<tr>
<th>Phytonutrient</th>
<th>Content weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture Content</td>
<td>80.2 gm</td>
</tr>
<tr>
<td>Crude Fibre</td>
<td>0.5gm</td>
</tr>
<tr>
<td>Protein</td>
<td>28.12gm</td>
</tr>
<tr>
<td>Fat</td>
<td>1.0 gm</td>
</tr>
<tr>
<td>Mineral</td>
<td>2.0gm</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>15.84 gm</td>
</tr>
<tr>
<td>Carotene</td>
<td>200 µg</td>
</tr>
<tr>
<td>Iron</td>
<td>250 mg</td>
</tr>
<tr>
<td>Ascorbic acid</td>
<td>5.3 mg</td>
</tr>
<tr>
<td>Calcium</td>
<td>30.5 gm</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>103 mg</td>
</tr>
</tbody>
</table>

Table 2. Phytonutrients

Traditional Uses

1. Leaves are useful to treat diarrhoea, dysentery, bilious infection, dysmenorrhea, chronic wounds and hemoptysis.
2. Fruits are act as astringent, stimulant tonic, stomachic. Fruits are useful to treat dry cough, menorrhagia and hemoptysis.
3. Bark is useful in mouth wash of spongy gum condition, dysentery, menorrhea and diabetes. It is also useful in washing of wounds, burns.
4. Latex useful to treat diabetes, hemorrhoids, traumatic pain and inflammatory enlargements. It act as curing agent in the stomach, cholera and mumps.
5. Roots and Root sap are also useful to treat diabetes, gonorrhea, diarrhoea, mumps, smallpox, menorrhagia.
Pharmacological Potential
1. Antibacterial activity [8]
2. Antifungal activity [8]
3. Anti-inflammatory activity [9]
4. Antidiabetic activity [10]
5. Antitussive activity
6. Antidiarrheal activity
7. Antipyretic activity
8. Gastroprotective activity
9. Wound Healing activity
10. Hepatoprotective activity

References
10. Mr. Kalpeshkumar S Wagh, Dr. Mohd Ruman Khan, Shagufta khan, Mr. Ravi Mallikarjun Rajurkar, Miss. Jhama lhamo, Mr. Lalit Sharma, Dr. Sri Lakshmi Darbhamulla, Dr. Ujash kumar Shah,