



A Review on Bryophyllum Pinnatum

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Abstract :-

Bryophyllum pinnatum is one of the most important plants and is commonly used by those family of crassulaceae. This plant is used primarily as a tropical medicinal plant in Asia, the United States and other countries. The presence of chemical compounds involved during this plant can be used as a cure for various diseases. It is widely used in haemostatic treatment and wound healing. It is also used in the treatment of immunomodulatory, CNS depressant, analgesic, anti-inflammatory, antidiabetic, anticonvulsant, anticancer, antiallergic, and proprotective, hepatoprotective, antileishmanial, antiulcer function. In this review of the plant, it emphasizes the use of chemicals and plant treatments. Scientists have studied the various parts of the plant and have developed. The clinical capacity of the whole plant and its components effectively. Few scientific proofs have led to this separation and determination of applications of bioactive compounds from different solvent fragments of plant. Further research and clinical trials should be undertaken to sell energy herbal remedies that one should be aware of the medicinal properties of the plant.

Introduction :-

Bryophyllum pinnatum is a plant of Oken a weed from the family Crululaceae, but it is traditionally used as a medicine in various parts of India especially to treat urine stones, and in other parts of the world. Traditional healers in different parts of the world use this plant in many cases such as high blood pressure, skin diseases, asthma, colds, insect bites, abscesses etc. Bryophyllum pinnatum Oken is very common known as Parnabeeja in Ayurvedic science, is used as a source for the Passover Panthenas [Berginia ligulata wall.] In the regions of Bengal, where this plant is known as Pathar kuchi widely used in urinary stones instead of the original source of Passage. Most traditional healers in Bangal, Unani and Ayurveda doctors use this plant in conditions such as: Raktasrava (blood disorders), Ashmari (renal calculi), Vrana (ulcers), Atisara (diarrhea). This plant grows all over India in tropical and subtropical regions, especially in Bengal. It is a perennial sweet plant it grows 1-1.5m high and the trunk has holes with four sides and is often combined. Leaves clash, strain, sweet, 10-20 cm long. The lower leaves are lighter, whereas, the top 3-7 are clean and long-lasting. They are a dark green color that is specially separated by scalloped as well cut in red. Leaf blade pinnately compound with 3-5 leaflets, 10-30 cm; petioles 2-4 cm; leaflets oblong to leaflets elliptic, 6-8 x 3-5 cm, marren crenate with each bearing notcha dormant stem has the potential to develop into a healthy plant a hidden peak. The leaves are given by rooting vegetable juices.

Taxonomical Classification:-

- Kingdom :- Plantae - Plant
- Sub Kingdom. :- Tracheobionta
- Division. :- Spermatophyta
- Subdivision :- Magnoliophyta
- Class. :- Magnoliopsida
- Subclass. :- Roside
- Order. :- Rosales
- Family :- Crassulaceae
- Genus :- Bryophyllum
- Species. :- Bryophyllum pinnatum Kurz

Morphology:-

- The height of *Bryophyllum pinnatum* is 0.3-1.2m
- *Bryophyllum pinnatum* is succulent glabrous
- **Stem** :- The young stems of *Bryophyllum pinnatum* are reddishbrown with white spots but are old brightly colored, the stems are approximately four angled. The stems are straight, fleshy, and hairless.
- **Leaves**:- The lower leaves are light or compact in nature and the upper leaves are 3-5/7 foliolate long. The petioles are connected by a gap around the stem. These leaflets are ovate or elliptic with crenate or serrate limit. The leaves are blue and yellowish-green in color. Flowers are there carried on a stem, about 10-25 mm long.
- **Flowers** :- Flowers are expected in large distribution panicles with strong branches, such pedicles. The flowers are mostly metallic, hanging and arranged in groups of branched at stem tip. The flowers are blue-yellow or bright green.

Ethanopharmacology:-

Bryophyllum pinnatum leaves and their bark are very admirable, irritating, soothing and carminative, therefore ethanopharmacologically used for the treatment of diarrhea, vomiting, ear pain, burning, abscesses, stomach ulcers, insect bites and lithiasis. Fresh leaf juice is used for the treatment of smallpox, otitis, cough, asthma, palpitations and general weight. Leaf powder used to dress the wound. The leaves of the plant have great medicinal properties and are effectively used both, internally and externally. Leaves holding various properties such as haemostatic, refrigerant, emollient, mucilaginous, at risk, depurative, anti-inflammatory, antiseptic and tonic. They are useful in renewed situations of vata and pitta, cuts, wounds, hemorrhoids, menorrhagia, discoloration of the skin, abscesses, soft sores, ophthalmic, burns, lumps, corn, diarrhea, headache, vomiting, severe inflammation and bronchitis. It reduces edema and increases ulcer cooling without leaving a scar. Inside, the juice of the leaves as well as cummin seeds are supplied with a double amount of ghee. The remedy is highly recommended for bleeding convulsions, masses and menorrhagia.

Pharmacological Action :-

Wound healing work: -

Bryophyllum pinnatum leaf extracts for petroleum ether, water, and alcohol at a dose of 400mg / kg orally for wound healing, reconstruction models of dead space wounds in Albino rats for 10 days in a row. Compared to control combining all three extracts of water, alcohol, and petroleum ether showed a significant increase in violating the ability to cut the wound. Drainage was used for the injury topic 21-day model until eschar formation



Nephroprotective Activity :-

The liquid discharge of *K. Pinnata* show nephro-protective effect when given to mice touched by nephrotoxicity induced by gentamycin. Gentamicin is included glomerular congestion, peritubular congestion and blood clots, epithelial desquamation, accumulation of inflammatory cells as well necrosis of kidney cells found to be reduced in the back receiving discharge.

Anti-inflammatory activity: -

Research has shown the existence of anti-inflammatory activities extracted from the leaves of *B. pinnatum* (animal ether, chloroform, acetone, methanol, aqueous component, alkaloidal fraction, flavonoids fraction, phenol and phenolic acid, alkaloidal anhydride) in doses of 500mg / kg per mouth once a day for two days in Back hind made with formaldehyde-paw edema in mice. Methanolic fraction also shows significant or less significant restrictions on formaldehyde induces edema in the early stages when it is essential prevention with the latest stages compared to conventional medicine Indomethacin.

Anti-bacterial activity: -

Antibiotic resistance between bacteria in synthetic medicine is increasing day by day, hence the need for new and safe antimicrobials especially from natural sources such as plants are important. *Bryophyllum pinnatum* leaves are used to inhibit bacterial growth, and the plant is used in treatment of typhoid fever and other viral infections, especially *Saureus*, *E. coli*, *B. subtilis*, *P. auroginosa*, *K. aerogenes*, *K. pneumoniae* and *S. typhi*.

Anticonvulsant effect:-

CH_2Cl_2 / CH_3OH releases reduced fainting caused by pentylene tetrazol, strychnine sulphate and thiosemicarbazide also increase the duration of seizures and reduce the duration of convulsions caused by three vibrating agents

Effectson renal system:-

Liquid extraction of leaves has a strong nephroprotective activity in gentamycin-induced nephrotoxicity in mice. This hydroalcoholic extract plant has been found to use essential diuresis as well Antirolithitic activity when given orally or by ip route in mice.

Conclusion :-

From the above review it is clear that *Bryophyllum pinnatum* is the most common medicinal plant in India, and exhibits various medicinal functions. It indicates medical activities such as anti-bacterial activity, antifungal, anticancer, anti-tumor, and pesticide actions. It also shows anti-ulcer, anti-inflammatory, nephroprotective, anti-diabetes, anticonvulsant, antioxidant. This review demonstrates the pharmacological potential of the *Bryophyllum pinnatum* plant for this. The review helps the researcher to know more about the program.

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