Sarcostemma Acidum Voigt Somlata Ethnobotany, Medicinal Uses and Pharmacological Potential

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Abstract: Sarcostemma acidum Voigt is a xerophytic plant of the family Apocynaceae. Plant is locally known as Somlata. It is a traditional medicinal plant categorized as a member of soma plants used to prepare Somras. It is much branched, leafless, straggling shrub. The plant found in India, Pakistan, and Europe. In India, it is mainly found in Bihar, West Bengal, Odisha and many places of South India in dry rocky places. The different parts of S. acidum plant including stem, root, seeds, latex, and fruits exhibited various medicinal uses. The juice of this plant is considered as the divine drink offered to gods, contemplated with medicinal efficacy, and used as natural restorative for health that makes the consumer awakened and alert. As per geographical indications, flowering of the plant occurs during summer and fruiting in October. It was propagated through seed. The stem juice of the plant was used as ear drops in otitis and dog bite. However root was used in to treat snake bite, rabies, emesis and leprosy. Latex is applied on wounds and cuts. As per geographical indications, flowering of the plant was used as ear drops in otitis and dog bite. However root was used in to treat snake bite, rabies, emesis and leprosy. Latex is applied on wounds and cuts. The whole extractives of the plant were reported to have to number of psychopharmacological effect including antipsychotic, anxiolytic and CNS inhibitory activity. S. acidum stem extract resulted in an arrest of spermatogenesis without any systemic side effect. Sperm motility as well as sperm density was reduced significantly.

Keywords: Sarcostemaacidumvoigt, Somlata, Medicinal plant, Traditional medicine, Pharmacological effects

1. Introduction

Sarcostemma acidum plant with flowers

Botanical name: Sarcostemma acidum Voigt

Taxonomical classification
Kingdom: Plantae
Order: Asterids
Family: Apocynaceae
Genus: Sarcostemma
Species: Sarcostemma acidum
Synonyms: Asclepiasacid,Roxb., Cynanchumacidum (Roxb.), Sarcostemnabrevistigma.

2. Morphology

Sarcostemmaacidum Voigt (Somlata) is a perennial jointed shrub with green, cylindrical, fleshy glabrous branches containing milky white latex. The length of the stem is 2 to 4 meter and diameter is 0.5 cm. to 1 cm. The root is brownish in color containing 3 to 5 sub root branches. The plant flowers between July to February and bears light yellow or white flowers. The plant is widely distributed in India, Sri Lanka, Pakistan and European countries. In India it is mostly found in rocky dry places of Karnataka, Tamil Nadu, Andhra Pradesh, Odisha, Bihar, West Bengal.

Microscopy of Stem of Sarcostemma Acidum
Microscopy of stem
The microscopy of the stem of *Sarcostemma acidum* is major divided into three parts.
1) Outer epidermis layer
2) Cortex
3) Vascular bundles.

The outer most epidermis consist of single layer of cell.

The cortex consist of collenchyma and parenchymal cells. Below the epidermis 2 to 3 layers of collenchyma cells are present. Under this 5 to 6 layers of polyhedral parenchymal cells are present. A single layer endodermis cells separate the cortex and vascular bundles. The vascular bundle is of ring shape containing the xylem and phloem fibers. Starch grains are present near the phloem tissue. Medullary rays and pith form the central part of the stem

Powder Microscopy

Microscopy of powder
In the microscopy of powder, it is found that the powder contains
1) Starch grain
2) Prismatic crystal of calcium oxalate
3) Mucilage
4) Elongated collapsed fiber.
3. Conclusion

This Pharmacognostic studies of *sarcostemma acidum* provide useful information to identifying and authenticating of this plant. This study gives details about distribution, identification and morphological features, microscopic characteristics, physical parameters of the plant that would be helpful in further scientific researches and studies.

References


