ABSTRACT

Viola canescens commonly known as Himalayan White Violet belongs to Violaceae family. It is found in the Himalayan regions of India, Bhutan, Nepal and Pakistan. It is a perennial herb which mostly prefers to grow in the shady and moist places. V. canescens is an important medicinal plant which is mostly used in the traditional medicinal system for cough, cold, flu, fever, and malaria and is also given as anticancerous drug. So far, violin (alkaloid), viola quercitrin, methyl salicylate, and saponins are the different phytochemicals which are extracted from this plant. Molecular studies on V. canescens suggest that, in case of adulteration in the powdered form of Viola species, they can be distinguishable by the lengths of their spacer regions. Because of the overexploitation of V. canescens for medicinal purposes, the conservational status of V. canescens in different regions became endangered. It is the need of the hour to utilize different conservational strategies and save this precious medicinal wealth from extinction. The medicinal importance of Viola canescens is importantly needed to be brought in notice of every concern man. therefor the present study has been focused on the review of literature on this plant.

KEYWORDS: Viola canescens, Violaceae, Alkaloid, viola quercitrin, methyl salicylate, saponins.

INTRODUCTION

Indisputably the third millennium is witnessing the worldwide changes in healthcare. Renaissance of traditional medicine that began almost two decades ago has gathered momentum in the recent years. Currency of this herbal revolution is the public faith. Public interest in herbal medicines is reflected in electronic and print media. During the past three decades, herbal research has produced a flood of studies offering compelling evidence that
herbal medicines help to prevent, slow or even reverse chronic ailments. During the past decade, traditional systems of medicine have become a topic of global importance. Current estimates suggest that, in many developing countries a large proportion of the population relies heavily on traditional practitioners and medicinal plants to meet primary health care needs. Although modern medicine may be available in these countries, herbal medicines have often maintained popularity for historical and cultural reasons. During the past decade, traditional systems of medicine have become a topic of global importance. Current estimates suggest that, in many developing countries a large proportion of the population relies heavily on traditional practitioners and medicinal plants to meet primary health care needs. Although modern medicine may be available in these countries, herbal medicines have often maintained popularity for historical and cultural reasons. Concurrently, many people in developed countries have begun to turn to alternative or complimentary therapies, including medicinal herbs. The natural products shall be considered as the best in primary health care of their better acceptability, safety, efficacy, potency, cost effectiveness, and lesser side effects. Several herbal medicines and supplements have been studied as potential therapeutic agent in the management of diabetes and related complications.

Figure 1: Flower of V. canescens. and clear dark streaks are present on them. The lower petals are short and they have dark stripes on them. Spur is short

**Taxonomy and Morphology.** The complete botanical name is *Viola canescens* Wallich ex Roxburgh. Its synonym is *Viola serpens* Ging. var. *canescens* (Wall.) Hook F. and Thomson. There are different common names for *V. canescens*. In English, *Viola canescens* is called Himalayan White Violet in the Himalayan region.
Table 1: Hierarchical classification of Viola canescens:

<table>
<thead>
<tr>
<th>Rank/taxa</th>
<th>Classification</th>
</tr>
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<tbody>
<tr>
<td>Kingdom</td>
<td>Plantae</td>
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<tr>
<td>Division</td>
<td>Magnoliophyta</td>
</tr>
<tr>
<td>Class</td>
<td>Magnoliopsida</td>
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<tr>
<td>Order</td>
<td>Malpighiales</td>
</tr>
<tr>
<td>Family</td>
<td>Violaceae</td>
</tr>
<tr>
<td>Genus</td>
<td>Viola</td>
</tr>
<tr>
<td>Species</td>
<td>Viola canescens</td>
</tr>
</tbody>
</table>

Flowering Period and Habitat

Flowering period of Viola canescens ranges from March to June and it produces beautiful, small pale violet to violet to white flowers during this period. It requires complete shade or semishady place for its perfect growth or it might require shady edges. [26]

Ethnomedicinal Aspects of V. canescens.[2-10]

A misfortune of the recent times is that the valuable ethnobotanical knowledge is vanishing from our culture very fast. Modernization and breakdown of native cultures and even the destruction of whole tribal groups are responsible for fast destruction of traditional knowledge. V. canescens was found to have carminative, demulcent, astringent, antipyretic, diaphoretic, and purgative properties. Plant is anticancerous in action and is used for treating different nervous disorders. In many other areas, locally, herbal practitioners utilize plant extract against eczema, epilepsy, rheumatism, and stomach acidity and as a cure for respiratory problems. [5] The leaf paste of V. canescens is used along with brown sugar mostly to cure cough and other respiratory problems. Flowers are the main parts used as medicine. Decoction of flowers along with cinnamon, clove, and fennel is used to treat respiratory tract problems. [6] The whole plant of V. canescens is used against malaria. It was reported that V. canescens is used in Himachal Pardesh and 8–10 gm of powdered dried flowers and leaves is used with warm water early in the morning to cure dysentery. [7] The flowers of Banaksha are boiled in water to make infusion, which is used as tea to cure for cough, cold, and fever. [8] In Uttarakhand, the extract of the whole plant is given for treatment of leucorrhoea, regulating menstruation, and headache. It is also given to treat bronchial asthma and cough and is also aphrodisiac. Paste of plant is externally applied on cuts, wounds, and boils as antiseptic. V. canescens is also used in Nepal as antipyretic, laxative for boils and leaves are emollient.
Results of a study shows that the ethanolic extract of *V. canescens* is a good purgative and it is used for this purpose in traditional medicines. So the crude extract of this plant can be used as pain reliever and laxative in traditional medicine.

**Phytochemistry**

Main chemical constituents of viola are Alkaloids, Phytosterols and triterpenoids, Flavonoids, Tannins, Saponins and Anthocyanins

The phytochemicals found in *V. canescens* include methyl salicylate (Figure 3(a), alkaloid violin, glycoside viola quercitrin, saponins, and glucosides. An alkaloid was discovered by Boullay (1828) in the roots known as violin.

![Chemical structures](image)

**Figure 3:** (a) Methyl salicylate. (b) Quercitrin. (c) Emetine.

**CONCLUSION**

From the study on literature on ethnobotanical importance of *V. canescens* it is obvious that the plant is used in several places to treat several ailments. This plant can be utilized to provide valuable medicinal formulations.
REFERENCES
1. Nayak Brahmanand, “All about Ayurved Today, “Ayurved line” Published by Dr. Seetharam Prasad Bangalore, 7th ed., 03-05.