



Short Communication

Phytochemical analysis of medicinal plant vitex negundo found in Pathalgaon block district-Jashpur, CG, India

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Abstract

Medicinal plant have been observed to very effective and the treatment of various diseases. The rural Sendhwar plant has been used in maximum quantity in its daily life in the Pathalgaon block of Jashpur District, full of tribal population and important medicinal properties are also available in it, which are available in the highest quantity in the hedge and roadside. According to the statement of local vaidyaraj's of Pathalgaon block region the leaf, stem, oil of vitex negundo plant is used for killing grain pests, asthma, Joint pain, swelling and also the obtained wood by the villagers to build houses and burnt it. Vitex negundo plant is likely to be widely used in future.

Keywords: Pathalgaon block, Medicinal plant, Vitex negundo, Local Tribes.

Introduction

Herbal drug in the ancient form of health care known to humanity and it will not be an stretcher to say that use of herbal drug for human health¹. Chhattisgarh state has one of the oldest, richest and most diverse culture tradition related with the use of medicinal plants. Vitex negundo is a woody and higher shrub plant. In Chhattisgarhi local language, it is called send war and the villagers use it to clean their teeth. Vitex negundo leaves are used in grains to protect them from killing insects as well as being bathed in water, which also ends skin diseases. It was clear through the survey that the vitex negundo plants were found to have the highest amount of medicinal plants and villagers this plants mostly in the hedge of their fields. Due to which it is also used to protect Crops. They get woods from it and burn it.

Table-1: Taxonomic Classification².

Kingdom	Plantae
Subkingdom	Tracheobionta
Super Division	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Sub Class	Asteridae
Order	Lamiales
Family	Verbenaceae
Genus	Vitex l.
Species	Vitex negundo linn.

Plant Profile: Morphological characteristics - Vitex negundo is a plant that is enriched with medicinal properties. Plant is tall and straight from about 4 to 11 fit. and plants leaves are divided into five foliage and the vein configuration of the leaves is found in parallel order.

Floral characteristics - Each flower is around 6 to 7 cm long and its flower is small in size and light blue color which develop in the top part of the plants.

External uses of Vitex negundo – Leaves of Vitex Negundo are boiled in water and bathed in skin patients and oil is used for joint pain.

Internal uses of Vitex negundo - Antioxident activity-preliminary studies showed that negundo leaf exhibited antioxidants properties and contain natural's oxidants and Antibacterial activity- the bacterial used for antibacterial Tests were gram positive³.

Medicinal uses - Vitex negundo is a medicinal tree its leaves, flower, stem, roots and seeds are used for medicinal purpose. The negundo oil and leaf used in treatment of Joint Pain, Skin Diseases, Anodine, Swelling, Asthma, Bronchitis etc.

Materials and methods

Study Area: The present study area district Jashpur in Chhattisgarh state in mainly tribal area and the all geographical area of Jashpur district is 5838.00sq.km. The south-north length of this study area is about 150 km. and its west-east width is 85 km⁴. A study of Pathalgaon block of Jashpur district observed

that this plants is available in the large quantity in the form of hedge and roadside.

Test for plant material: i. Test for phenols - Liebermann's Test- about 1 ml leaf extract add 2 drops dilute Sulphuric acid (H_2SO_4) and dil. NaOH. Formation of deep red color determine the present of phenols⁴. ii. Test for Terpenoids - about 1-5 drops plant extract is separate test tube was taken with 2ml of $CHCl_3$ and 5ml con. H_2SO_4 was carefully added and formation of brown color determine the present of Terpenoids. iii. Test for Saponins - Foam Test- About small amounts of plants extract was shaken in a test tube with a small quantity of water (H_2O), the foam produced persisted for 10-15 minutes. The formation of white ppt. and confirm the presence of Saponins. iv. Test for Alkaloids - Meyer's Test-about 1ml of each of the sample solution 1-5 drops of Meyer's Reagent added and the formation of cremish white ppt. confirm the presence of alkaloids. v. Test for Carbohydrate - Fehling test- warm 2-3ml of Fehling solution, add plant extract and boil it. Formation of brownish red precipitate determines the present of carbohydrate (starch) confirmed.

Results and discussion

It is clear from the present study that vitex negundo plants have different types of medicinal properties and different types of chemicals. The residents of Pathalgaon block have been using for centuries for the treatment of many diseases. The Phytochemical screening of the whole plants (leaves, roots, stem) exhibited the presence of carbohydrates, phenol, terpenoids, saponine, alkaloids etc.⁵. The detailed result of the test are recorded in the following Table-2.

Table-2: Determination of Phytochemical screening

Solvent	Methanol	Acetone	Petroleum Ether
Phenols	-	-	-
Terpenoids	-	-	-
Saponines	-	-	-
Alkaloids	-	-	+
Carbohydrate	+	+	-

Conclusion

Vitex negundo is a medicinal plants found on the roadside and hedge in the largest quantity in pathalgaon block. According to vaidyraj's statement, the villagers have been using them for centuries to treat various diseases killing insects, Joint Pain, swelling, asthma etc. also vitex negundo is used as firewood. Due to various medicinal properties available in this plant, its use will continue to be used by the villagers here in the future.



Figure-1: Vitex Negundo Plant.



Figure-2: Stem of Vitex Negundo.

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