ABSTRACT

The members of Lamiaceae family consist of fragrant plants which can be used in traditional medicine for diverse problems used as medicinal drug all around the global. Also, some of the secondary metabolites remote from this family have proven interesting biological function. In this study we’ve got analyzed Phytochemicals of some plant from Lamiaceae family (Ocimum sanctum, Ocimum gratissimum, Mentha arvensis). The plant species were accrued and systematically recognized for the duration of last two years i.e. 2020 to 2022. The conventional and neighborhood makes use of collected parts have been questioned via knowledgeable consent semi-structured interviews with nearby informants. The samples had been extracted the use of solvents like chloroform, ethanol, and water. Phytochemical analysis was performed to check the presence of compounds inclusive of flavonoids, saponins, tannins, and Terpenoids. The presence of these Phytochemicals can be correlated with the medicinal capacity of these plants.

KEYWORDS: medicinal plants, lamiaceae, acetone extract, methanol extract, Phytochemical

INTRODUCTION

The observe and pick out of used medicinal vegetation through nearby people is suitable, not only for the discovery of healing agents, but additionally due to the fact such facts can be treasured for disclosing new resources of such monetary substances as tannins, oils, gums, precursors for the synthesis of complex chemical materials. Flora of Maharashtra state (Sharma et al.1996), Flora of Buldhana district (Diwakar and Sharma 2000), Salve and Kakde worked on Flora of Shri Vyankatesh arts, comm. & science college campus Deulgaon raja (2017). About 85% of the conventional drug treatments used by different ethnic organizations inhabiting diverse terrains for number one healthcare are derived from flora, especially in India; medicinal plant life are broadly
Used by all sections of the population with an envisioned 7500 species of plants used by numerous ethnic groups (Farnsworth, 1988). Most of the plants from the lamiaceae had been historically used as medication all over the world. The price of these flowers lies in some chemical substances that produce a definite physiological movement at the human frame, specifically through flavonoids and phenolic compounds. Lots of this indigenous medicinal plant life is used as spices and meals flowers. Also the lamiaceae taxa have a giant function and are applied as infusion of the aerial elements or as powder blended with honey or olive oil. The plant is being used by the local peoples and tribal of Maharashtra as ethno medication on diverse illnesses. This plant is also being used for its anti-inflammatory, anti diarrheal properties by numerous communities in Indian subcontinent and additionally across the world. The prevailing take a look at become designed to evaluate the essential phytochemical components of this wild medicinal plant.

The critical bioactive components in vegetation are generally the secondary metabolites consisting of alkaloids, flavonoids, tannins and other phenolic compounds (Edeoga et al., 2005). Preliminary photochemical screening of some Indian medicinal plants done by Doss (2009), Naghibi worked on Labiatae Family in folk Medicine in Iran (2010), Lamiaceae family by Khan A. M. et al. (2022), Gholamreza Asghari et al. (2017), Tripathi et al. (2017), Hamdi Bendifa et al. (2021). Investigate of biologically active phytoconstituents Verbenaceae, Lamiaceae and Fabaceae family, Phytochemical Methods- A guide to modern techniques of plant analysis done by Harborne (2014), Preliminary Phytochemical and antibacterial studies on flowers of selected medicinal plants worked by Jeeva et al. (2011), Panchal & Parvez (2019). The existing paintings objectives at comparing the Phytochemical composition, by using qualitative and quantitative methods, of methanol, ethanol and chloroform extracts of 3 different participants of the lamiaceae circle of relatives, particularly, Ocimum sanctum, Ocimum gratissimum and Mentha arvensis are regarded to be of medicinal use. The usage of Ocimum sanctum, Ocimum gratissimum and Mentha arvensis in conventional medicinal drug is represented in Table-1.

**MATERIALS AND METHODS**

The plant material collected from forest area of village Pimpalgaon Chilamkha. The vegetation have been recognized and authenticated through a expert. Observation, oral semi-based interviews and questionnaires have been the gear normally used for statistics collection. The plants have been gathered around the villages of the informants and were shown to them to affirm the plant names. The oral interviews had been directed with the help of an interpreter, who turned into guided via village elders from unique districts who have been properly introduced with the medicinal informants. The questionnaire contained records about neighborhood naming, parts which had been used for medicinal-medicine-dietary functions and mode of folk instruction some of plant life from lamiaceae. All data turned into recorded. The data collection process lasted 2 years.

**Procedure for Phytochemical Tests:**
Phytochemical evaluation becomes carried out to check for the presence of compounds which include flavonoids, saponins, tannins, and Terpenoids. Arial parts of the plant species of lamiaceae gathered from the study vicinity have been investigated. The chemical checks were performed on the aqueous extract and on powdered sample from the Arial part the use of popular approaches to identify the components. Fresh leaves had been accrued, washed with distilled water; coloration dried till it is crisp and reduces into small pieces. These dried samples have been powdered and saved at $4^\circ$C until similarly use. Crude extracts (10% w/v) have been made the usage of three solvents i.e., methanol, ethanol and chloroform. The extracts had been filtered through best muslin material and the clean filtrate was evaporated to dryness to form the crude extract and stored at $4^\circ$C for similarly use. The Phytochemical exams of the numerous plant species become intended to reveal the presence or absence of the diverse secondary metabolites.

**Phytochemical screening:**
The chemical exams have been performed with the crude extracts of each plant i.e. Methanol extract (ME), ethanol extract (EE) and chloroform extract (CE).

**Assessments for tannins:**
Approximately 2 ml of the aqueous extract became stirred with 2 ml of distilled water and few drops of fec$^3$ solution have been brought. Formation of green precipitate turned into indication of the presence of tannins.

**Assessments for saponins:**
5 ml of aqueous extract was shaken vigorously with five ml of distilled water in a take a look at tube and warmed. The formation of stable foam turned into taken as an indication of the presence of saponins.

**Assessments for flavonoids:**
To 1 ml of aqueous extract, 1 ml of 10% lead acetate answer turned into delivered. The formation of a yellow precipitate changed into taken as a advantageous take a look at for flavonoids.

**Assessments for Terpenoids:**
2ml of the organic extract was dissolved in 2 ml of chloroform and evaporated to dryness. 2 ml of focused Sulphuric acid became then brought and heated for about 2 min. Development of a grayish shade suggests the presence of Terpenoids.

**Table 1: Medicinal uses of the plants in the study**

<table>
<thead>
<tr>
<th>Plant species</th>
<th>Common name</th>
<th>Traditional uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocimum sanctum</td>
<td>Tulasi</td>
<td>Cough cold, Chronic fever, Sore throat, Bronchial asthma, Malaria, Skin diseases, Arthritis, Diarrhea, Dysentery</td>
</tr>
<tr>
<td>Ocimum gratissimum</td>
<td>Rantulas</td>
<td>Cough cold, Chronic fever, Sore throat, Bronchial asthma, Malaria, Bronchitis, Skin diseases</td>
</tr>
<tr>
<td>Mentha arvensis</td>
<td>Pudina</td>
<td>Digestive Ailments Acne, Bronchitis, Burns, Colds, Liver Problems, Headaches, Toothache</td>
</tr>
</tbody>
</table>

**Table 2: Phytochemical constitute of the leaf extract**

<table>
<thead>
<tr>
<th>Plant species</th>
<th>Tannins</th>
<th>Saponins</th>
<th>Flavonoids</th>
<th>Terpenoids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocimum sanctum</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Ocimum gratissimum</td>
<td>-</td>
<td>+</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Mentha arvensis</td>
<td>+ +</td>
<td>-</td>
<td>++</td>
<td>+</td>
</tr>
</tbody>
</table>
RESULTS AND DISCUSSION

The outcomes affirm the presence of parts which can be recognized to exhibit medicinal in addition to physiological activities (Mukeshwar et al., 2011). Lamiaceae circle of relatives is beneficial for scientists and pharmaceutical industries as compared with different species. They could assist us to discover medicinal flora as well as to eliminate the practices that may be harmful. Also the healing consequences of vegetation can be attributed to the Phytochemical including alkaloids, flavonoids, sterols, saponins, tannins, Terpenoids and glycosides which could display a curative activity towards pathogens and consequently assist their traditional utilization in various illnesses. The Phytochemical characteristics of the leaf extract have been investigated are summarized in Table-2. The outcomes received on this observe hence advice that the identified phytochemical compounds may be the bioactive materials responsible for the efficacy of the leaves of the flora studied. The presence of some of these compounds has additionally been showed to have antimicrobial pastime. Subsequently it could be inferred that the plant extracts can be a source for the commercial manufacture of drugs beneficial inside the chemotherapy of a few microbial contamination. Tannins had been pronounced to show antimicrobial, antitumor, anti inflammatory and wound healing properties in different organs. The flavonoids show a first-rate array of biochemical and pharmacological actions in addition to anti inflammatory, antioxidant, anti allergic, hepatoprotective, antithrombotic, antiviral antidiarrheal, and anti-carcinogenic activities.

Saponins are glycoside of each triterpenes and sterols and are used as expectorant and emulsifying agent.

CONCLUSION:

According to as per my result, used plants in forest area of village Pimpalgaon Chilamkha can be as a potential source of useful drugs. Hence the evaluation of the pharmacological private for medicinal plant life of this area is suggested and further researches on the secondary metabolites of the plant life are recommended.

ACKNOWLEDGEMENTS

The author is thankful to Department of Botany of the Shri Vyankatesh Arts, Comm. & Science College, Deulgaon Raja for providing us necessary facilities.

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