



ROLE OF ETHNOBOTANY IN ANISOMELISINDICA REGARDING MEDICINAL & ESSENTIAL OIL PROPERTIES & ITS SIGNIFICANCE IN NATUROPATHY

Dr. Sharayu Shyam Deshmukh

Department Of Botany,, Science College, Congress Nagar Nagpur

[Email-botanysharu5@gmail.com](mailto:botanysharu5@gmail.com)

Abstract

The condition of specific region is different always its depends on geographical conditions like climatic, environment and local environment of the region where we live and its effects on health and the medicinal plants found in the statewide place and its traditional use can be corrected in a short time by naturopathy. The Indian subcontinent, including mind-body and energy-based healing, botanical medicine, and herbal remedies. Topics covered include Ayurveda, yoga, naturopathy, and medicinal plants such as neem, wild tulasi, amla, and turmeric. *Anisomelesindica* (L) is a wild plant of family Lamiaceae. Commonly known as "Gopoli", it is aromatic plant and its aromatic oil, and plants parts extracts use in different naturophytic treatments. Naturopathy is another systemic approach to healing, which incorporates prevention via diet and lifestyle, along with addressing social, environmental, genetic, and mental components to health. The emphasis is on enabling the body to heal itself. Botanical medicine is a component of this tradition. In application of advanced method like GC-MS computational techniques plays an important role in the development of drug of interest concerning the study of *Anisomelesindica* contents. Two compounds were identified in aerial parts of *Anisomelesindica* these are Tetracosapentaene, 2,6,10,15,19,23-hexamethyl-, 22- Stigmasten-3-one. After extracting the dried leaves 6.33% oil obtained.

Keyword: GC-MS, Ethnobotany, compounds. *Anisomelesindica*, Naturopathy



Figure 1 : View of *Anisomeles indica* plant.

Introduction

In today's developed world, 85% of people in developing countries depend on it for their health care, as it has been proven to have various medicinal activities such as antioxidants, antibiotics. In countries surrounding India and Pakistan, Nepal, Sri Lanka, and Bangladesh, many historical and deeply developed healing traditions are practiced alongside or in place of allopathy. Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa-Rigpa. Naturopathy - "Naturopathy" means treatment of affliction or disease. It has the potential to be a great health promoter, disease preventative and curative as well as regenerative regeneration. In naturopathy treatment methods, such plant extracts, but, flowers are used as a remedy and it is important to understand the ethnobotanical significance of the plant.

The study was conducted in Chamarajanagar district of Karnataka. The traditional uses of 61 plants, belonging to 33 families, were described through interview discussions with those involved in the treatment of 54 tribal people. *Anisomeles indica* is a species of flowering plant in the family Lamiaceae. Commonly known as “Gopoli, Nagpur.. Today, the field of Ethnobotany requires variety of skills, because it is the study of relationship-between-plants-and

people. Further studies reveal the presence of various phytochemical constituents mainly, alcohols, tanin, saponin, cardenolids and polyuronids and chemical constituent like Tetracosapentaene, 2,6,10,15,19,23-hexamethyl, 22- Stigmastan-3-one. These studies reveal that *Anisomeles indica* is a source of medicinally active compounds and have various pharmacological effects, hence, this drug encourage finding, its new therapeutic uses.

MATERIAL AND METHODS

Sample collection and preparation: Collect Leaves, clean leaves of the plant. Wash

and Dry: Rinse with distilled water and pat dry.

Grind: Crush leaves into a fine paste using a mortar and pestle. After this method provides a quick overview for extracting and analyzing plant compounds.. The method of using solvents such as chloroform, ethyl alcohol and acetone, were used for or the extraction and this work was processed at GC-MS study at IIT Pawai, Mumbai Analyze Data: Identify and quantify compounds from the chromatogram.



Figure 1: Fresh, dried and powder *Anisomeles indica* (L) Leaves

Result And Discussion

Ethnobotanical plants are commonly used in naturopathic treatments to manage various health conditions. Plant extracts, derived from leaves, stems, and other parts, are applied directly to injuries or used to treat ailments like rheumatoid arthritis, skin disorders, and sexual health issues. Naturopathy emphasizes natural remedies and the body's ability to heal itself, utilizing these plant-based treatments as a core component. Medicinal plants are cataloged alphabetically, detailing their botanical names, families, local names, parts used, preparation methods, medicinal uses, and key chemical constituents identified through extraction and GC-MS analysis. These extracts are often formulated into tablets and syrups for therapeutic use. Aromatherapy, a key practice in naturopathy, involves using essential oils for their therapeutic benefits. When inhaled, essential oils directly affect the brain's emotional center, the amygdala. They can also be absorbed through the skin; for example, a massage therapist might use wintergreen oil to relax muscles, while lavender is added to bath salts for its calming effects. Naturopathy integrates these natural therapies to promote overall health and wellness. Phytochemicals are the key components that make plants effective in treating various diseases, as well as in traditional naturopathic medicine. The leaves of the entire plant are often applied topically as a paste. This paste contains beneficial compounds such as terpenoids, alkaloids, flavonoids, saponins, glycosides, and anthocyanins, which are used to treat skin conditions. After applying the leaf paste in naturopathic treatments, these phytochemicals penetrate the skin, helping to alleviate symptoms, promote healing, and restore skin health.

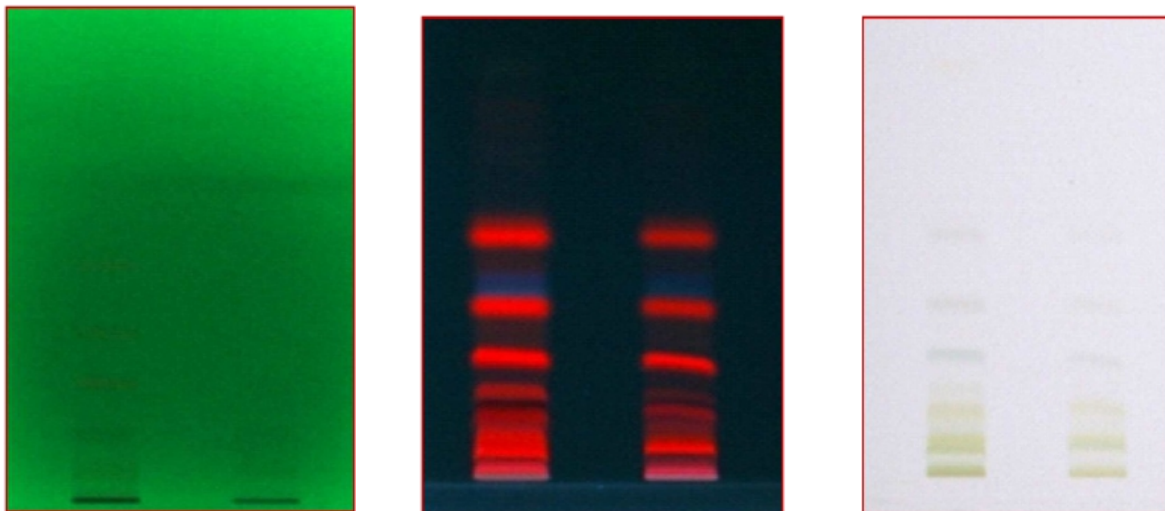


Fig. No. - 1: High Performance Thin layer chromatography of *Anisomelisindica* Plant

Table-1. The chemical Composition of *Anisomelesindica* (wild) Linn

Sr.No	Name of compound	Molecular formula	Mol. Weight	Peak Area
1	Tetracosapentaene,2,6,10,15,19,23-hexamethyl-	$C_{30}H_{52}$	412	57689
2	22-Stigmasten-3-one	$C_{29}H_{48}O$	412	57689

Table. No. - 3: GC-MS Chromatogram of *Anisomelisindica* Plant

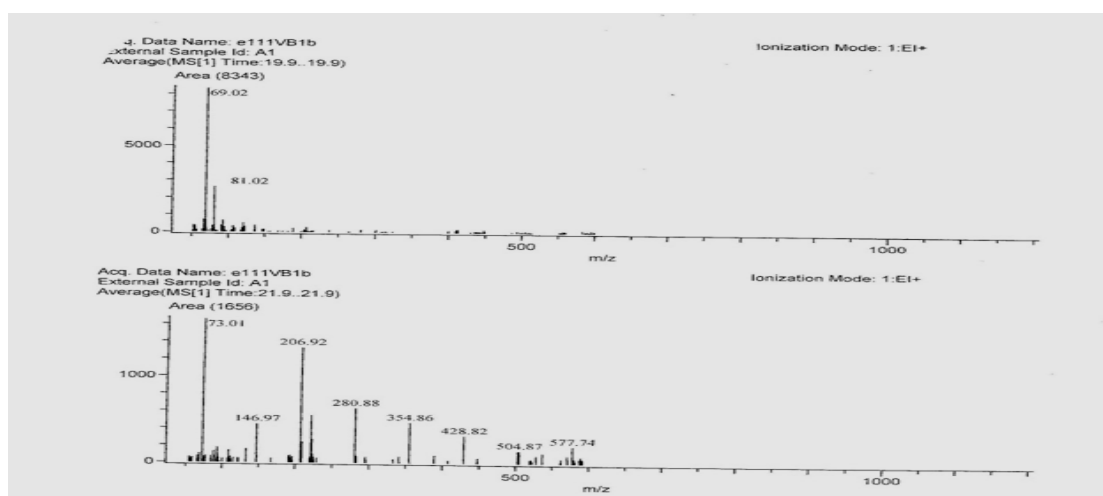


Table No-2: Detection of oil Percentage in Leaves

No. Plant	Plant Name	Sample	Empty flask weight	Empty flask oil weight	Oil percentage of leaf
1	<i>Anisomelesindica</i>		138.680 gm	138.870 gm	6.33 %



Fig-After applying paste of leaf in naturopathic treatments

Conclusion:

The present investigation on *Anisomelis indica* of the Lamiaceae family identified medicinally active phytochemicals, including Tetracosapentaene and 22-Stigmasten-3-one, in the leaves. Using HPTLC, the study analyzed the chemical composition of essential compounds from leaves collected in different geographic and climatic conditions. The findings confirm that *Anisomelis indica* possesses ethnomedicinal properties widely used in Ayurvedic medicine. This study highlights the need for further research to preserve traditional knowledge and supports using HPTLC for identifying similar compounds in other plants of the Lamiaceae family.

References:-

1. Chatterjee A and Pakrashi SC (1997),: The Treatise On Indian medicinal plants. SPID, New Delhi.
2. Kirtikar KR and Basu BD,(1991): Indian medicinal plants, Singh B and Singh M.P. Publisers, India, Vol.3.
3. Anonymous (2003), The Wealth of India, Raw Materials, Vol 6. New Delhi: Publication and Information Directorate, CSIR, 295-6.
4. Dharmasiri M., Thabrew M., Ratnasooriya W. (2000), Antiinflammatory effects of *Anisomeles indica*, *Phytomed*, 7, 97.
5. Dharmasiri M., Thabrew M., Ratnasooriya W. (2003), Water extract of leaves and stems of *Anisomeles indica* possesses analgesic and antihyperalgesic activities in rats, *Pharmaceutical Bio*, 41, 37-44.