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Proximate Analysis of Leaves of *Vitex* L. from Shendurjana (GHAT) of Warud Tahsil of Maharashtra State

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ABSTRACT

Shendurjana(ghat) is near to the base of the hilly area of Satpuda ranges. Shendurjana(ghat) is located in Warud tahsil of Amravati district in Maharashtra State of India. This area is very reach of flora and fauna having various types' medicinal plants. *Vitex* L. belongs to Lamiaceae family containing about 200 genera and 150 species. The different parts of this plant are used for medicinal uses. Mainly Leaves, flowering tops is used for extraction of oil. This oil has been found to have anti-bacterial, anti-yeast action. Researchers have found that it can kill some intestinal parasites. Seeds and oil showed antibiotic effects. It is also observe that leaves of *Vitex* L. are used extensively in folk medicine and its leaves extract produced significant anti-hyperglycemic effect. Leaves of *Vitex* L.are also used for various rheumatic problems, for paining for curing rheumatism and back paining and an effective on many more diseases of child to adults. Due to medicinal virtues to this plant, it is used in Ayurvedic preparations for treating various ailments. The medicinal, pharmaceutical and life sciences survey reveals that the leaves of *Vitex* L. are used throughout the world for rheumatic and paining problems in folk medicine by each and every tribal people and many old people who know the significance of these leaves. This plant from which the oil is distilled has been revered in India for thousands of years. Taking all these things into consideration the proximate analysis of *Vitex* L. was investigated.

Key words: Shendurjana(ghat), *Vitex* L, Proximate analysis.

INTRODUCTION

India is a rich storehouse of medicinal plants. All natural products can be termed bioactive molecules, as every diverse molecule possesses one kind or multiple kinds of biological oblique pharmacological activities. U.S. and European countries are now realizing the significance of Nature's Green gift and so they are making patients of herbal drugs. As various parts of *Vitex* L. are used for the treatments of various diseases so has its own identity in traditional drugs practices. Leaves of *Vitex* L. possesses its own identity in medicinal, pharmaceutical and chemical sciences[1-10], due to its anti-hyperglycemic, anti-pyretic, analgesic, anti-microbial, expectorant, stimulates the adrenal cortex, soothes itching and insecticidal properties and Leaves of *Vitex* L. are also used for curing various rheumatic problems and for mosquito repellent. Enormous work on natural products was carried out by research group of D.T.Tayade[11-19] especially on proximate, phytochemical, physiochemical and spectroscopical analysis of various plants and as a part of research work, presently being undertaken in this laboratory on natural products. It appeared sufficient interesting to carry out proximate analysis of the leaves of *Vitex* L. Solubility of the drug directly hamper the drug absorption, transmission and drug effects and moisture and ash contain also affects these properties hence moisture and ash content and cold water, hot water, 1% NaOH, and 1% HCl solubility of *Vitex* L. leaves sample have been investigated.

Preparation of Sample

First the site for leaves collection was decided. The whole leaves were collected from same region of Shendurjana (Ghat). Before picking the whole plant, the soil was moistened. The collection of sample was done in between 20th July2011to 30th July2011. The leaves of *Vitex* L. were separated by scissor and were shed dried. They were dried at room conditions. The leaves were pulverized in grinding mill having a screen of 5mm diameter hole to achieve particle size 40-60 mesh. This fine powder was treated as a sample powder for various analyses. All chemicals used are of A.R. grade.

Moisture content and ash content

Silica crucible was taken and it was weighed and kept in oven till it showed constant weight. The leaves sample was analyzed for moisture and ash content by known method[12] and the percentage of the moisture and ash of sample is calculated by applying the following formula,

$$\% \text{ of Moisture and ash} = \frac{\text{loss of weight of sample}}{\text{Weight of sample taken}} \times 100$$

Cold water solubility, hot water solubility, 1% NaOH solubility and 1% HCl solubility:

The cold water , hot water , 1% NaOH and 1% HCl solubility of leaves sample was analyzed by known method[12] and percentage of solubility of each sample is calculated by applying the following formula,

$$\% \text{ of solubility} = \frac{\text{Weight loss of samples}}{\text{Weight of sample taken}} \times 100$$

The literature survey on Herbal drugs showed that the results obtained during this study are good.

Table 1.

S. No	Parameters	Percentage (%)
1	Moisture content	40.2
2	Ash content	2.2
3	Cold water solubility	11.4
4	Hot water solubility	14.5
5	1% NaOH solubility	87.3
6	1% HCl solubility	95.2

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