

## **An Ethno-Botanical and Phytochemical Screening Some Medicinal Plants from Shegaon Tahshil. (Maharashtra) India**

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**ABSTRACT:** Medicinal plants are an integral part of the variety part of culture india and have been used for over centuries. Shegaon is located around 550 km east of the city of [Mumbai](#) and 300 km west from the city of [Nagpur](#). shegaon tehsil is part of Khamgaon Sub-Division of Buldhana district, along with [Khamgaon](#) tehsil. Shegaon tehsil has area of 436 square km and consist of 95 villages that have a population of around 125,000. these area consist of the number of medicinal plants, which used by local people for various ways for healthcare. Due to such condition the thire will be need to collect the medicinal data of plants along with their medicinal uses. Due such condition the plants were, *Adhatod vasica* Nees, *Celosia argentea* L, *Capparis zeylanica* L, *Terminalia bellirica* Roxb, *Anogeissus latifolia* (Roxb.) Wall, *Diospyros melanoxylon* Roxb, *Syzygium cumini* (L). phytochemical analysis of these plants consist of some phytochemical like alkaloides, phenol, tannine, steroids, carbohydrate. Present paper deals with the significance of these phytochemicals with respect to the role of these plants in traditional medicinal system

**KEYWORD;** phytochemical Medicinal plants, Ethno botanical uses, Shegaon tahshil etc

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### **I. INTRODUCTION**

India has a rich tradition of plant-based knowledge on healthcare. A large number of plants are equally used by tribals and folklore traditions in India for treatment of cuts, wounds, burns and various local treatment. All traditional medicines have their roots in folk medicines and household remedies. WHO has estimated that 80% of the world's populations rely primarily on traditional medicine (WHO, 1978; Okerele, 1992). There has been an increasing interest in the study of medicinal plants and their traditional use in different parts of the world during the last few decades. Traditional medical knowledge of medicinal plants and their use by indigenous cultures are not only useful for conservation of cultural traditions and biodiversity but also for community healthcare and drug development in the present and future. In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine (Pei, 2001). The medicinal plants contain various type of phytoconstituent such as alkaloids, tannin, phenols, steroids, saponins. Regional exploration of medicinal plants is therefore need of the day. Considering this aspect, a survey was undertaken to explore the medicinal plants and their phytochemical analysis in Shegaon Tahshil from Buldana district (M.S) India.

### **II. MATERIAL AND METHOD:**

The plant material collected from wild stage from near area of shegaon tahsil. Plant was identified by taxonomically by local taxonomist and with help of flora of Marathwada (Naik, 1986), flora of Maharashtra (Singh & Kartikeyan, 2000) and flora of Akola district (Kamble & Pradhan, 1988).

#### **Extraction:**

The plant materials were washed thoroughly and dried in shade. The shade dried material are then powdered and the powder used for phytochemical analysis. The powder was then subjected to Soxhlet extraction with different solvent (petroleum ether, benzene, acetone, chloroform, methanol and water) according to their increasing polarity. Each time before extracting with the new solvent the powder material was dried in air oven below 50°C. The final extract of each solvent was used to analyze for the presence of different phytochemical constituents. (Kokate, 2005, Harborne, 1998 and Wallis, 1990) The method employed for the quantification of various phytochemicals are described below.

#### **Test for carbohydrate:**

- 1) **Fehling's Test:** 1ml of Fehling's A solution and 1 ml of Fehling's B solution were mixed and boiled for one minute. Now the equal volume of test solution was added to the above mixture. The solution was heated in boiling water bath for 5-10 minutes. First a yellow, then bricks red precipitate was observed.

- 2) **Benedict's test:** equal volume of Benedict's reagent and test solution were mixed in the test tube. The mixture was heated in boiling water bath for 5 minutes. Solution appeared green showing the presence of reducing sugar.

**Test for Alkaloids:**

**Mayer's reagent:** To the 2-3 ml of filtrate, 1 ml of dil HCL and Mayer's reagent was added and shake well. Formation of yellow precipitate showed the presence of alkaloids

**Dragendroff's test:** To the 2-3 ml of filtrate 1ml of dil HCL and Dragendroff's reagent was added and shake well. Formation of orange brown precipitate showed the presence of alkaloids.

**Test for tannins:**

**Lead acetate:** on addition of lead acetate solution to the extract white precipitate appeared.

**Test for Flavonoids**

**With lead acetate:** To the small quantity of extract lead acetate solution was added. Formation of yellow precipitate showed the presence of Flavonoids.

**Test for saponins:** foam test: To the 1ml extract 20ml distilled water was added and shakes in measuring cylinder for 15 min. then 1cm layer of foam was formed.

**Test for Coumarine:** To the 2 ml of extract 10% NaOH was added and shake well for 5 min show yellow color.

**Medicinal uses of some selected plants for study.**

S.N	Plant name	Part used	Medicinal use
1	<i>Adhatod vasica Nees.</i>	Leaves	Bronchitis, asthma, used in the treatment of malaria, dysentery and diarrhea anti-inflammatory activity
2	<i>Celosia argentea L.</i>	Root,seed, flower	Redness and swelling of the eyes, photophobia, lacrimation headache, for colic, gonorrhoea and eczema
3	<i>Capparis zeylanica L.</i>	Root ,stem bark, leaf,	Snake bite, small pox, sedative, dysentery, stomachache anthelmintic.
4	<i>Terminalia belliricaRoxb.</i>	Stem ,leaves ,flower	anemia and leucoderma anthelmintic; bronchitis, sore throat, vomiting
5	<i>Anogeissus latifolia (Roxb.) Wall</i>	Stem, leaves	stomachache. anemia, urinary discharges, piles, and in skin diseases
6	<i>Diospyros melanoxylon Roxb.</i>	Leaves	anti-emetic. Leaves in scabies. night blindness.
7	<i>Syzygium cumini (L)</i>	Bark	The bark is digestive, anthelmintic, sore throat, asthma, ulcers diabetes
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**Quantative analysis of selected some medicinal plants.**

S.N	Plants	Alkaloids	Flavonoids	phenol	Tannin	Steroids	Saponins
1	Adhatod vasica (leaves)	+	+	+	+	+	+
2	<i>Celosia argentea(seed)</i>	+	+	-	+	-	+
3	<i>Capparis zeylanica</i>	+	+	-	-	+	-
4	<i>Terminalia bellirica</i>	-	-		-	+	
5	<i>Anogeissus latifolia</i>	+	+	+	+	-	-
6	<i>Diospyros melanoxylon</i>	-	+	+	+	-	-
7	<i>Syzygium cumini</i>	+	+	+	+	+	+

**III. RESULT AND DISCUSSION**

The present investigation carried out on some selected medicinal plants .these are Adhatod vasica Nees, Celosia argentea L, Capparis zeylanica L, Terminalia belliricaRoxb, Anogeissus latifolia (Roxb.) Wall , Diospyros melanoxylon Roxb, Syzygium cumini (L).the different part of these plant was undertaken for phytochemical analysis. Table no.1 consists of medicinal uses of these medicinal plants present in shegaon tahsil area. Along with these plant ,plant part with their uses also discussed in table no 1.where as in table 2 ,the phytochemical investigation of these plants is carried out with help of some phytochemical technique by

Harborne. after the investigation of these plant it is found that these plants contain some important chemical like alkaloids, phenol, steroid, saponin, Flavonoids. On the basis of phytochemical result the leaves *Adhatod vasica* contain number of phytoconstituents. where other plants contain some more or less amount of phytoconstituent.

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