***Short communication***

 **Ethnomedicinal Study Of Some Important Plants Of Khandesh Region**

**Abstract:** Ethno medicine is a subfield of ethno botany that deals with the study of traditional medicines with relevant written sources as well as whose knowledge has been orally transmitted over the centuries1. Plants are rich source of medicine in developing countries. 80% of the world’s population relies on traditional medicines to maintain its health. The increasing emphasis on research in Ayurveda, rediscovering the traditional systems of medicine and utilization of medicinal herbs to reduce the side effects of modern medicines demand a greater necessity to explore this vast wealth of crude drugs. Information on plant species which are traditionally used as medicines to treat different diseases obtained from the tribal and local people was collected by conducting an extensive ethnobotanical survey in the tribal zones of Jalgaon and Dhule tehsil. This information was used to tap the potential of locally available medicinal plants resources.

**Keywords:** Raktapunarnava, glory lily, kali musali, ethnomedicine, kalmegh, baheda.

**Introduction**: Indian plant drugs caught the attention of west since the beginning of colonial days. India is a leading producer and exporter of medicinal plants. Medicinal plants, their extracts and pure natural products are produced in the herbal drug industries. There are as many as 700 species of medicinal plants used in number of herbal formulations available in India. Satpuda range covering entire Khandesh region has a tremendous wealth of medicinal plants. Even today Bhills, Gavits, Padvis, Tadvis and Valvis tribes are exclusively dependent on forests and have their own system of herbal medicine2. From the past few years exclusive as well as extensive work in identification, documentation and recognition of traditional medicine is being carried out in India. Investigation of traditional medicine is very important for the welfare of rural and tribal communities for the treatment of conventional illness. This may add to the expensive and inadequate health care facilities in rural areas. Ethnomedicinal documentation of tribal health system will be of great advantage to pharmacologists to develop economical and herbal medicines for the treatment of several diseases and disorders.

This paper is an attempt to compile the ethnomedicinal information on some important plants available in the Khandesh region.

**Study Area:** Present study was carried out in different villages of east Khandesh of Jalgaon district and west Khandesh of Dhule district.

**Methodology**: Field tours were conducted in the tribal zone of chopda and Dhulia taluka for collecting the information on ethnomedicinal plants which were used to cure various diseases.

The first hand information was gathered during field tours on the basis of group discussions with tribal and rural people. The information was also collected from traditional healers such as Vaidyas and Daiyas. The collected data was further confirmed with the available literature. The fresh specimens of the plants were collected and identified by experts, matching with authentic herbarium, books on flora and standard photographs. The collected plant specimens are deposited in the herbarium of the Department of Pharmacognosy, MET’s Institute of D. Pharmacy, Maharashtra.

**Enumeration of the important ethnomedicinal plants of Khandesh region**:

1. *Boerrhaavia diffusa (Nyctaginaceae):* Commonly known as rakta punarnava or hog weed Punarnava contains alkaloids punarnavine and punarnavoside, an antifibrolytic agent. It is mainly used asdiuretic and as an expectorant. Punarnava is stomachic and is prescribed in the treatment of jaundice.
2. 2. *Gloriosa superba (Liliaceae):*Commonly known as Gloriosa or glory lily.The dried tubers which is used contains colchicine along with its different derivatives in minor quantities. It is mainly used in the treatment of Gout and inflammation.

3. *Curculigo orchioides (Amaryllidaceae):* Commonly known as kali musali or American ginseng . The dried rhizomes mainly used as drug contains starch, tannins, enzymes and glycoside Curculigoside and syringic acid. It is mainly used in the treatment of skin disorders, jaundice, as an aphrodisiac, decreased sperm count, general body weakness.

 4. *Tinospora cordifolia (Menispermaceae):*Commonly known as Guduchi. The stems used as drug contains diterpene compounds including tinosporone, tinosporic acid, cordifolisides A to E, syringen, the yellow alkaloid, berberine. It is used as a hepatoprotective and immunomodulatory agent.

5. *Terminalia bellirica (Combretaceae):* Commonly known as Baheda. The dried ripe fruits used as drug contains 32% tannins, colouring matter, gallic acid, ellagic acid, gum and sugar. It is used as an astringent, demulcent and in preparation of soap. Also used in dyspepsia and diarrhoea.

6. *Holarrhena antidysenterica (Apocynaceae):* Commonly known as Kurchi .The dried stem bark used as drug contains C21 group steroidal alkaloids including kurchicine, nor conessine, isoconessine, holarrhime and holarrhidine. It is used as antiprotozoal in activity and used to treat amoebic dysentery.

7. *Tribulus terrestris (Zygophyllaceae):* Commonly known as Puncture vine. The dried ripe fruits used as drug contains alkaloids harmine and harman. It also contains saponins, flavonoids, fixed oil, resin and traces of essential oil.Fruits are used diuretic, tonic and also in the treatment of calculus affections and painful micuritions.

8. *Eclipta alba (Asteraceae):* Commonly known as Bhringaraj. It mainly contains coumestans, alkaloids, thiopenes,flavonoids, polyacetylenes, triterpenes and their glycosides. Ithas traditional external uses, such as for athlete's foot, eczema and dermatitis, and on the scalp to address hair loss. It is reported to improve hair growth and color.

9. *Cassia fistula (Fabaceae)*: Commonly known as Indian labernum or golden shower tree. Its main chemical components are anthraquinones, fistulic acid, rhein, rheinglucoside, sennosides A and B, phlobaphenes, emodin, chrysophanic acid, fistuacacidin, lupeol, beta-sitosterol and hexacosanol. It is used as purgative.

10. *Termanalia arjuna (Combretaceae)*: Commonly known as Arjun. The bark which is used as medicine mainly contains tannins and triterpenoid saponins. It is mainly used as cardiotonic.

11. *Ensete superbum (Musaceae)*: Commonly known as Rankeli, Jangali kela. The Ointment of leaf ash in butter as base is applied on leucoderma spots. Seed and stem are given in mad dog bite. Root and stem decoction are taken in the morning for a month as tonic and in the treatment of venereal diseases.

12. *Costus speciosus (Zingiberaceae)*: Commonly known as Crepe Ginger or Pev. Rhizome paste applied externally on routine tumors. Decoction of powdered rhizome is given internally in constipation and in stomachache.

13. *Curcuma psudomontana (Zingiberaceae):* Commonly known as Hill turmeric, Vedi halad or ranhalad. The paste of tubers prepared in sulphur is applied externally to give relief in muscle stress.3

14. *Eulophia nuda (Orchidaceae):* Commonly known as Spectacular Eulophia, Anbar kand or Amarkand. Raw tuber is eaten in rheumatoid arthritis. It is also used the treatment of tumors, scrofulous glands of neck, bronchitis, blood diseases, vermifuge, etc.

15. *Remusatia vivipara (Araceae):* , Commonly known as Hitchhiker elephant ear, Rukhalu. Coconut oil-based ointment prepared from roasted tuber is applied externally in fungal alopecia. Paste of tuber is applied locally to treat boils.

16. *Sterculia villosa (Sterculiaceae):* Commonly known as Elephant rope tree or Sardol. Root powder with milk is given internally to facilitate delivery. Pulverized bark poultice applied externally over affected parts in arthritis. Small quantity of gum mixed with honey taken in the morning is reported to be good for throat problems. Seed powder and jaggery (1:2) by weight (approximately 50 g) used to prepare tablets, which are eaten in empty stomach for a week to treat heart diseases and asthma4.

17. *Andrographis paniculata (Acanthaceae):* Commonly known as King of bitters, Green chirata, Kalmegh or Kadechirayat. This herb is used by the tribal people for a variety of ailments like dysmenorrhoea, leucorrhoea, pre-natal and post-natal care, complicated diseases such malaria, jaundice, gonorrhea and general ailments like wounds, cuts, boils and skin diseases5.

18. *Bauhinia racemosa (Caesalpiniaceae)*: Commonly known as Bidi leaf tree or Apta. Water extracts of bark, leaves and root taken two times daily after meal for 2-4 weeks in treatment of jaundice and liver disorders.

19. *Luffa acutangula (Cucurbitaceae):* Commonly known as Ridged Gourd or Doadka. Fruit in the form of very fine powder is taken in body through nose for one week to protect from jaundice. The Extract from different parts of plant are used as antidiabetic and CNS depressant.

20. *Tabernaemontana divaricata* *(Apocynaceae):* Commonly known as Crepe Jasmine or Pinwheel Flower, Tagar or Tagari. Root powder (100-200g) is boiled in water and the extract is taken thrice a day for two weeks in the treatment of jaundice. It is used in traditional medicine as components of rejuvenating and neuro-tonic remedies. It is believed that these remedies can prevent forgetfulness and improve memory

**Conclusion:** Plants have been used as a source of medicines from ancient times. Even in the modern times, plant-based systems continue to play an essential role in health care. Additionally, a significant portion of the currently available non-synthetic and/or semi-synthetic pharmaceuticals in clinical use is comprised of drugs derived from higher plants, followed by microbial, animal and mineral products, in that order. The ehnomedicinal survey showed that Khandesh region has a wide spectrum of medicinal plants which can open many corridors for further research. The survey also revealed that the plants enumerated above are commonly available and some are cultivated as vegetables, avenue trees or crops. Hence, they can be taken up for further pharmacological and clinical studies. Also the survey revealed that the tribal people of Khandesh region possess good knowledge of herbal medicines and collection of information from these ethnic groups will provide searchlight for various new medicines.As the tribal societies are progressing towards modernization, their knowledge of traditional uses of plants may be lost. So it is important to study and record this heritage. Such studies may provide some valuable information to phytochemists and pharmacologists in screening of individual plant species and in assessing potential medicinal uses of these plants in the treatment of various disorders.

**References:**

1. Evans WC; Trease and Evans Pharmacognosy (1996); Fifteenth ed; W. B. Saunders company ltd; 24, 125-132; 476.
2. Mishal H B (1998); Some lesser known medicinal plants of Chopda Tehsil; Indian Journal of Natural Products; 15 (2) ; 3-4.
3. Firdos S Shaikh (2011); Medicinally Important Plants of Jalgaon Taluka (Maharashtra); Journal of Experimental Sciences; 2(4); 09-10.
4. Mali PY, Bhadane VV (2011); Some Rare Plants of Ethnomedicinal Properties From Jalgaon District of Maharashtra; International Journal of Green Pharmacy;2 (2); 76-78.
5. Badgujar S B, Patil M B (2008); Ethno medicines for Jaundice Used in Tribal Areas of North Maharashtra; Natural Product Radiance; Vol. 7 (1); 79-81.