

Ethnomedicines for jaundice used in tribal areas of North Maharashtra

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Abstract

Ethnomedicinal survey was conducted in hilly area of North Maharashtra, India. Till today *Bhills*, *Gavits*, *Kokanis*, *Mavachis*, *Padvis*, *Tadvis*, *Valvis* and *Vasaves* tribes are exclusively dependent on forest. They have own system of herbal medicine. Information on 19 plant species of 18 angiosperm families which are traditionally used as medicine to cure *Kavil* (Jaundice) was collected. The plant part used, traditional preparation and doses for administration are given in the present paper.

Keywords: Ethnomedicines, Medicinal plants, Tribes, Jaundice, North Maharashtra.

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to mankind as *Kavil* (Jaundice) for more than 1,200 years. Yellowing of eyes and vomiting yellowish fluid are the initial external symptoms of hepatitis^{1, 2}. Many plants and minerals are being used by ethnic communities of tribals as a source of herbal remedy for jaundice and other human ailments since ancient times. This paper is an attempt to compile the ethnomedicinal information on

Introduction

In past few decades pioneer work in identification, documentation and recognition of traditional medicine has been done 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.

The manifestation of liver diseases such as hepatitis-B including jaundice, characterized by Hippocrates was found to be infectious as early as the eighth century. Thus viral hepatitis was known



Brassica nigra



Curculigo orchiooides



Daucus carota



Eclipta alba

hepatoprotective plants available in demographical area of North Maharashtra.

Study area

Present study was carried out in different villages of east Khandesh of Jalgaon district, lying between 20°00' to 21°00' N latitude and 74°55' to 76°28' E longitude and west Khandesh of Dhule district, lying between 20°38' to 22°03' N latitude and 73°47' to 75°1' E longitude and Nandurbar district, lying between 17°05' to 18°11' N latitude and 73°33' to 74°54' E longitude of North Maharashtra, acquires 24881 sq kms geographical area. The average rainfall of the area is 735.85 mm and maximum temperature is 40 to 47°C.

Morbidity rate is 1534 per one Lakh population of Khandesh region due to jaundice as an apparent cause (Human Development Report of Maharashtra, 2002). North Maharashtra region was selected for present work because it is categorized as tribal and undeveloped region. More than 70% of geographical area of Khandesh is covered with forest and hills including Satpuda Mountain and forest area of Pal. Total population of Khandesh is about 6700638, out of these total tribal population is about 4704013 which is 70.20% of total population of region (As per Census, January, 2005) where modern facilities are lacking. They depend upon plant resources to meet their day to day needs and use plant based formulations from generation to generation for various diseases including the treatment of *Kavil*. Moreover traditional medicine based on plants provide utmost rural or tribal healthcare.

Methodology

Extensive field tours were

conducted during 2002-2005 for collecting the ethnomedicinal information on hepatoprotective plants which are used to cure jaundice. Khandesh region is inhabited by *Bhills*, *Gavits*, *Kokanis*, *Mavachis*, *Padvis*, *Tadvis*, *Valvis* and *Vasaves*. The first hand information was gathered during field tours on the basis of group discussions with tribal and rural people. The information was collected from traditional healers such as *Vaidyas* and *Daiyas*. The information was verified by actual observation in the region and compared with the statements of at least 3 to 4 traditional medicine men and then considered it authentic. The collected data was further confirmed with the available literature⁴⁻⁶. The fresh specimens of the plants were collected and identified by experts, matching with authentic herbarium, books on flora⁷⁻⁹ and standard photographs. The collected plant specimens are deposited in the herbarium of the Jijamata College, Nandurbar, Maharashtra.

Enumeration of species

The information on 19 species which are used against jaundice by traditional medicine men is given below. The species are arranged alphabetically as per their botanical names which are followed by the family name, their local name and finally plant part used, along with the method of application.

1. *Acacia catechu* Willd. (Mimosaceae) *Khair*
Bark (1-3g) is mixed with water and the extract is taken two times daily until cured.
2. *Andrographis paniculata* (Burm.f.) Wall. ex. Nees (Acanthaceae) *Kadechirayat*

Leaves and young twigs are crushed and made in to paste, 20-30 g paste taken three times daily after meal for 2-3 weeks.

3. *Averrhoa carambola* Linn. (Averrhoaceae) *Kamarang*
Ripened fruits (2-3) are eaten daily for 15-20 days.
4. *Azadirachta indica* A. Juss. (Meliaceae) *Kadu neemb*
One kg powder of fresh, mature air-dried leaves is boiled in water and 5 ml extract is taken once daily for 15-20 days.
5. *Bauhinia racemosa* Lam. (Caesalpinaceae) *Apta*
Water extracts of bark, leaves and root taken two times daily after meal for 2-4 weeks.
6. *Brassica nigra* (Linn.) Koch (Brassicaceae) *Mohari rai*
Massage mustard seed oil on hands and legs thrice daily for 1-2 weeks.
7. *Croton oblongifolius* Roxb. (Euphorbiaceae) *Ganasur*
Stem bark of *C. oblongifolius*, *Halad* (*Curcuma longa* Linn.) and ripen fruits of *Averrhoa carambola* (2:1:2 g) are crushed together and boiled in water, extract is taken thrice a day for 2-3 weeks.
8. *Curculigo orchoides* Gaertn. (Amaryllidaceae) *Kalimusli*
Water extract of root is taken two times daily after meal for 2-4 weeks.
9. *Curcuma longa* Linn. (Zingiberaceae) *Halad*
Paste of rhizome (15-25g) is mixed with cow milk and taken once daily for 12-15 days.

10. *Daucus carota* Linn. (Apiaceae)
Gajar

Root juice (5-10 ml) is taken thrice daily for 2-3 weeks.

11. *Eclipta alba* (Linn.) Hassk. (Asteraceae) *Bhringaraj*

Paste of the whole plant (20-30g) is mixed with salt and taken once a day for 15-20 days.

12. *Lawsonia inermis* Linn. syn. *L. alba* Lam. (Lythraceae) *Mehandi*

Bark and leaves (half kg) are crushed together and boiled in water. Decoction is taken two times daily after meal for 2-4 weeks.

13. *Luffa acutangula* (Linn.) Roxb. (Cucurbitaceae) *Doadka*

Fruit in the form of very fine powder is taken in body through nose for one week to protect from jaundice.

14. *Mentha spicata* Linn. emend. Nathh. (Lamiaceae) *Pudina*

Powdered dry leaves are eaten with chilli powder and *chapati* for 10-12 days.

15. *Momordica charantia* Linn. (Cucurbitaceae) *Karela*

Fruit and leaf juice is taken once daily for 10-15 days.

16. *Oroxylum indicum* (Linn.) Vent. (Bignoniaceae) *Tetu*

Bark powder (half kg) is extracted in boiled water and 100 ml of extract is taken thrice a day for 2-3 weeks.

17. *Plumbago indica* Linn. (Plumbaginaceae) *Lalchittrak*

Root pieces (4 cm long, 2-3 pieces) are tied together and worn in the neck with cotton thread for 15-20 days.

18. *Solanum nigrum* Linn. (Solanaceae) *Kakamachi*

Aromatic water extracted from powder of fruits is taken twice daily for 15-20 days.

19. *Tabernaemontana divaricata* (Linn.) R.Br. (Apocynaceae) *Kanphanaphul*

Root powder (100-200g) is boiled in water and the extract is taken thrice a day for two weeks.

Conclusion

The ethno-medico-botanical survey of the area revealed that the tribals are possessing good knowledge of herbal drugs. 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 hepatoprotective agents for liver disorders.

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. Thus, such type of study may also bring to light some new sources of drugs for jaundice.

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