



Herbal Formulations in Jaundice Treatment From Kolhar Ghat Areas of Pathardi Taluka in Ahmednagar District (M.S.) India

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ABSTRACT

An extensive field visits were arranged in the Kolhar Ghat areas located in Pathardi taluka of Ahmednagar district (M.S.) India to document the ethno-medicinal information hidden among the local inhabitants regarding the wild and native ethno-flora in treatment of jaundice. The paper focuses on uses of 16 plants species belonging to 16 genera from 15 families to cure jaundice among the native inhabitants in their day to day life. The information presented here shows that leaves in four plants (25.00%) followed with roots and shoots in three plants each (18.75%), fruits and stems in two plants each (12.50%) rhizome and whole plant in one plant each (6.25%), found to have jaundice curing properties by traditional ways.

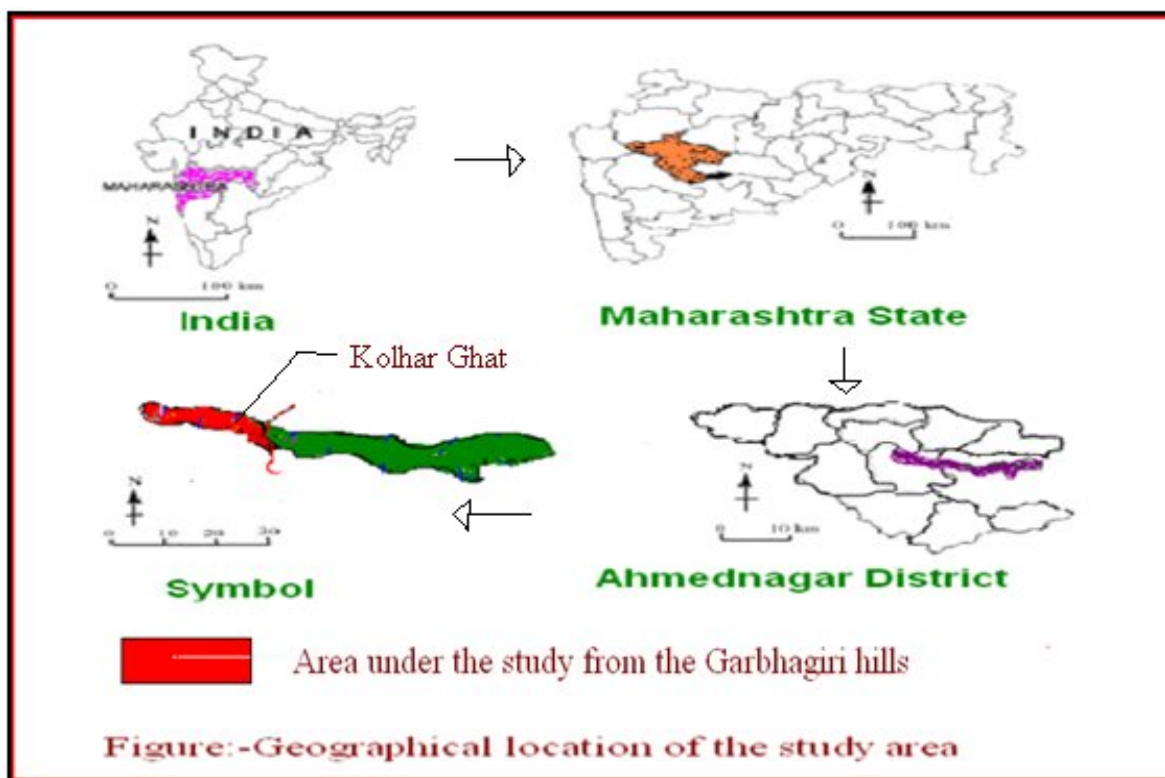
Key Words: Ethno-veterinary, Vridheshwar, Ethno-flora, Traditional knowledge, Herbal formulation.

INTRODUCTION

In India it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine¹. In recent years, it has been realized that traditional herbal drugs are going to play a very significant role in curing various acute and chronic diseases and disorders cure system. Most of the modern synthetic drugs and medicines have attacked the targets blindly and thus affected several related metabolic systems. On other hand the herbal medicines probably work more accurately, selectively and gently without disturbing the other system. Further these drugs prepared with the eco-friendly methods and are affordable, effective; easily available in market. During the course of present investigation 10 hers and their three formulations has been revealed from the different study sites of Madhya Pradesh used in the treatment of jaundice.

THE STUDY AREA (KOLHAR GHAT)

Kolhar Ghat is an ideal hilly place famous for its diverse flora of ethnobotanical interests. It is situated at distance of 27 km on south-western side in of Pathardi tahasil in Ahmednagar district (M.S.) India. It lies at an altitude of 530-570 meters from MSL (Mean Sea Level) and is located in between 19°34'38"N - 19°36'31"N latitude and 74°85'37"E-75° 89'48"E longitude. The area under the study is occupied by 37.5 % mixed-deciduous type of forests with an average rainfall of about 298 cm and temperature range of 26°C to 35.8°C². So far the study concerned, area under study is unexplored up to today.



REVIEW OF LITERATURE

Recently interests in ethnobotanical explorations has been increased at national and international level³⁻¹¹. A perusal of the literature reveals that there are still gaps in ethno-medicinal knowledge in this area. The present paper, therefore is an attempt to fill up the gap.

MATERIALS AND METHODS

For documentation of the ethno-botanical information and collection of plant material hidden in the study areas, several field visits were arranged during the period from pre-monsoon of 2007 to the post-monsoon of 2009. Data presented here is based on personal verbal interviews with traditional healers, hakims and the knowledgeable informants in an informal ways at their homes and subsequently at their working places. The methodology used here is based on the literature published by the workers¹²⁻¹⁶.

The ethnobotanical information was gathered and documented in datasheets. The plants of our interests were collected with the help of local informants accompanied to authors. Plant identification was done by using regional flora¹⁷⁻¹⁹. The herbarium specimens are deposited in the Herbarium laborator of Department of Botany at P.V.P. college, Pravaranagar.

ENUMERATION

The ethno-botanical data presented in Table-1 includes traditional jaundice curing properties. In all totals 16 plants species belonging to 16 genera from 15 families have been documented in alphabetical order with special reference to botanical name followed with vernacular name, family, plant part used, method of drug formulation and mode of administration. The uses that are not mentioned in the major literature consulted are considered as less known uses and such uses are marked by asterisk.

RESULTS AND DISCUSSION

During the field visits, the information regarding uses of the native ethno-flora in curing jaundice has been documented. In all total, 16 species belonging to 16 genera from 15 families have been studied for jaundice curing properties among the local inhabitants. The information documented from the area under the study, indicates that the native inhabitants i.e tribal, non-tribal, rural and knowledgeable informants possess good knowledge of herbal drugs formulation with their specific action. But their continuous and progressive exposure

to modernization, civilization and industrialization, there is serious threat of extinction in the rich heritage of knowledge in coming future. Collective efforts should be initiated by the ethno-botanists, ethno-pharmacologists and traditional healers for documentation of useful medicinal plants and to evaluate their efficacy²⁰. Plant part used against name and number of plant species studied are listed in Table-2.

From above study (Table-2), it is found that leaves in four plants (25.00%) followed with roots and shoots in three plants each (18.75%), fruits and stems in two plants each (12.50%) rhizome and entire plant parts in one plant each (6.25%).found to have jaundice curing properties.

Few plants of the locality possess potential of better economic exploitation. Some of them are *Tinospora Cordifolia*, *Jatropha curcas*, *Momordica charantia*, *Hygrophila auriculata*, *Sphaeranthus indicus*, *Gymnema sylvestre*, *Catharanthus pussilus*, *Ficus hispida*, *Tephrosia purpurea*, *Hemidesmus indicus*, *Solanum nigrum*, *Cryptolepis Buchanan*, *Azadirachta indica*, *Zingiber officinale* and *Phyllanthus niruri* syn *P. Fraternus* Since all these plant species were used in more or less proportion throughout the world, there is wide scope for their bio-prospecting. Thereafter our prime duty becomes to protect and conserve these plants via ex-situ or in-situ ways urgently in a proper way. To test the scientific validity of the herbal preparations or drugs, clinical studies are required, which can establish therapeutic properties of these preparations for safe use.

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Table-1: Ethnobotanical Data

Sr. No	Botanical name	Vern. name	Family	Part used	method of drug formulation and mode of administration
1.	<i>Hygrophila auriculata</i> (Schmach.) Heine.	Talimkhan a	Acanthaceae	Leaf	Decoction from tender and healthy leaves in water is mixed with 2-3 tsp of honey and same preparation given orally once a day up to 21-24 days.
2.	<i>Catharanthus pussilus</i> (L.) G.Don.	Chandani	Apocynaceae	Shoot	Decoction from young and healthy shoots is mixed with a half cup sheep's milk and same formulation is given orally twice daily up to 15-18 days
3.	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Schulte.	Bedki-vel	Asclepiadaceae	Shoot	An extract from 5-6 tender and healthy shoots in a glassful of cow's milk is mixed with equal quantity of toddy (<i>Borassus flabellifer</i>) stem juice and ½ glass of above formulation is given twice a day for 9-12 days.
4.	<i>Hemidesmus indicus</i> (L.) Schulte	Kavil-vel	Asclepiadaceae	Root	Two to three inch long root pieces immersed in haldi (<i>Curcuma domestica</i>) powder are stung in a thread and put on the neck as garland up to for 12-15 days to cure jaundice in livestock.

5.	<i>Sphaeranthus indicus</i> L.	Gorakhmundi	Astaraceae	Shoot	A handful of tender shoots are crushed with 20 gm sugar in a cupful luke warm water which is given orally twice a day up to 3-4 weeks
6.	<i>Momordica charantia</i> Linn.	Karle	Cucurbitaceae	Leaf	A handful of young leaves are crushed with same quantity of jamalgota (<i>Acalypha indica</i>) leaves to obtain extract which is administered orally with 1-2 tsp of honey twice a day up to 12-15 days
7.	<i>Jatropha curcas</i> L.	Parshi Erand	Euphorbiaceae	Leaf	A handful of fresh and healthy leaves of the plant are crushed in a glassful of goat's milk to obtain an extract which is given internally once a day in early morning for 24-28 days
8.	<i>Phyllanthus niruri</i> H.f. syn <i>P. fraternus</i> Webster.	Jondhala	Euphorbiaceae	Whole plant	Pavsher entire plant parts are crushed in specific quantity of butter milk and tablets of about 2-3 gm are made which are taken orally twice a day for 8-10 days
9.	<i>Tephrosia purpurea</i> (L.) Pers	Unhali	Fabaceae	Root	An extract from 2-5 tsp root powder is fermented in curd for 3-4 days and same formulation is given orally once a day for 8-10 days.
10.	<i>Azadirachta indica</i> A.Juss.	Kadu-nimb	Meliaceae	Stem	Juice from young stem bark pieces is mixed with Karle (<i>Momordica charantia</i>) young fruit juice in 1:1 ratio and ½ glass of same preparation is given internally twice a day up to 12-15 days
11.	<i>Tinospora Cordifolia</i> (Willd.)Miers ex H.f.and Thmos.	Gulvel	Menispermaceae	Leaf	Juice from aatpav fresh and tender leaves in cow's urine is mixed with 2 mase kale mire (<i>Piper nigrum</i>) seed powder and same preparation is given orally twice a day for 18-21 days
12.	<i>Ficus hispida</i> L.f.	Kala-umbar	Moraceae	Root	An extract from young aerial roots in luke worm water is boiled with 2-3 tsp of Dhane (<i>Coriandrum sativum</i>) fruit powder for 2-3 minutes and same decoction given orally twice a day for 10-12 days

13.	<i>Punica granatum</i> L.	Dalimb	Myrtaceae	Fruit	Paste from pavsher young fruit-pericarp is mixed with one cup curd and with a pinch of sugar to obtain homogeneous mixture which is given orally once a day up to 21-24 days.
14.	<i>Cryptolepis buchanani</i> Roem and Schult.	Krishn- sariva	Periplocaceae	Stem	One to two inches long fresh and young stem pieces stitched into a thin leathery thread and above thread is tied into the neck of patient up to 18-21 days
15.	<i>Solanum nigrum</i> L.	Kamoni	Solanaceae	Fruit	Juice from 5-6 mase semi-ripen fruits is mixed with Khajur (<i>Phoenix sylvestris</i>) stem juice and same formulation is given once a day in the early morning for 15-18 days.
16.	<i>Zingiber officinale</i> Rosc.	Adrak	Zingibaraceae	Rhizome	Juice from aatpav fresh rhizome is boiled with 2-3 glasses of goat's milk up to 1-2minutes and the decoction is given orally twice a day for 9-10 days

Abbreviations: tsp-tablesppon, 1 masa-1 gm, tola-10 gm, aatpav-100 gm, pavsher-250gm, 1 cup-100 ml, a handful-aprox.200gm.

Table-2: Plant part used against name and number of plant species studied

Sr.No.	Plant Part Used	Name of Plant Species	No. of Species
1.	Leaf	<i>Tinospora Cordifolia, Jatropha curcas, Momordica charantia, Hygrophila auriculata.</i>	04
2.	Shoot	<i>Sphaeranthus indicus, Gymnema sylvestre, Catharanthus pussilus.</i>	03
3.	Root	<i>Ficus hispida, Tephrosia purpurea, Hemidesmus indicus.</i>	03
4.	Fruit	<i>Solanum nigrum, Punica granatum.</i>	02
5.	Stem	<i>Cryptolepis Buchanan, Azadirachta indica.</i>	02
6.	Rhizome	<i>Zingiber officinale.</i>	01
7.	Whole plant	<i>Phyllanthus niruri syn P. Fraternus.</i>	01

REFERENCES

1. Pei, SJ. Ethnobotanical approaches of traditional medicine studies some experiences form Asia, J. Pharmaceutical Biol, 2001,39:74-79.

2. Almeida, MR. A Checklist of Plants of Ahmednagar District. Enercon, Orient Press Ltd. Bombay, 2007, p.311
3. Ambasta, SP. The useful Plants of India, Publication and Information Directorate, CSIR, New Delhi, 1992, p. 421
4. Asolkar, LV, Kakkar KK and Chakra OJ. Second supplement to glossary of Indian Medicinal plants with Active principles. Part I (A-K), (1965-81). Publications and Information Directorate, CSIR, New Delhi, 1992, p. 358
5. Chopra, RN, Nayar SL and Chopra IC. Glossary of Indian Medicinal Plants, CSIR, New Delhi, 1956, 121-27.
6. Chopra, RN, Chopra IC and Verma BS. Supplement to the Glossary of Indian Medicinal Plants, Council of Scientific and Industrial Research, New Delhi, 1969, 123-28.
7. Kapur, LD. Handbook of Ayurvedic Medicinal Plants, CRC Press, London, 2001, 121-23.
8. Sharma, PP and Singh NP. (2001) Ethnobotany of Dadra Nagar Haveli and Daman, (Union Territories), Botanical Survey of India, Kolkata, 2001, p. 268
9. Badgujar, SB and Patil MB. Ethnomedicines for jaundice used in tribal areas of North Maharashtra Indian J. Nat. Product Res, 2008, 7(1):79-81.
10. Chandra Sekar, K and Srivastava SK. Traditional uses of plants in curing jaundice in the Pin Valley National Park, Himachal Pradesh. Indian J. Tradl. Knowl, 2005, 4(3):314-16
11. Gul Jan, Mir Ajab Khan et. al. Ethnomedicinal plants used against jaundice in Dir Kohistan Valleys (NWFP), Pakistan. J. Ethnobot. Leaflets, 2009, 13:1029-41.
12. Schulte, RE. The role of Ethnobotanists in search for new medicinal plants. J. Lloydia, 1962, 25 (4):257-66.
13. Jain, SK. Methods and approaches in Ethnobotany, Society of Ethnobotanists, Luknow, 1989, 127-31.
14. Alexiades, M. Collecting ethnobotanical data: An introduction to basic concepts and techniques. In: Alexiades M.(ed.) Selected Guideline for ethnobotanical research: A Field Manual. U.S.A. Sheldon JW: The New York Botanical Garden, 1996, p.53-94.
15. Martin, GJ .Ethnobotany: A methods manual. London.UK: Chapman and Hall, 1995, p.102-104.
16. Jain, SK and Mudgal VA. A Handbook of Ethnobotany, Bishen Singh Mahendra Pal Singh, Dehradun, 1999, p.58-63..
17. Cooke, T. The Flora of the Presidency of Bombay, Vols 1 and II, Repr. edr, Government of India, 1958, p. 357
18. Almeida, MR. Flora of Maharashtra. Blatter Herbarium, St. Xavier's College, Mumbai, 1996, p.369
19. Pradhan, SG and Singh NP. Flora of Ahmednagar District.(M.S.), Bishen Singh Mahendra Pal Singh. Dehradun, 1999, p.339
20. Mehrotra, S and Mehrotra BN. Role of traditional and folklore herbals in the development of new drugs. J.Ethnobot., 2005, 17:104-11.

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