

RESEARCH ARTICLE

Traditional Herbal Medicine for Ophthalmic Diseases used by Tribals in Melghat Region

Rothe SP and Maheshwari AA

Department of Botany, Shri Shivaji College of Arts, Commerce and Science, Akola

Manuscript details:	ABSTRACT
<p>Available online on http://www.ijlsci.in</p> <p>ISSN: 2320-964X (Online) ISSN: 2320-7817 (Print)</p> <p>Editor: Dr. Chavhan Arvind</p> <p>Cite this article as: Rothe SP and Maheshwari AA (2016) Traditional Herbal Medicine for Ophthalmic Diseases used by Tribals in Melghat Region, <i>Int. J. of Life Sciences</i>, A6: 75-78.</p> <p>Copyright: © Author, This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derives License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.</p>	<p>A large number of our plants of medicinal value are common weeds, generally, found throughout India. Present paper deals with an investigation of plants used in ophthalmic problems by the tribals of Melghat region. Melghat region consists of variety of medicinal plants accumulated through the ages. A great mass of popular remedies, many of which are even today in common use throughout this region, though much of the folk medicine is steadily being eroded by the advancing tide of synthetic drugs. About two thousand are mentioned in the Ayurvedic, Unani and Tibbi systems of medicine. We have many other plants which could be better substitutes for those which are not indigenous. Drug yielding plants are mostly used in crude form even today, but with the advancement of pharmaceutical researches there is increasing exploitation of our resources. The active principles of our plants are isolated in pure forms; the manufacture of proprietary and secret remedies is now growing in commercial industry. Anything that leads to greater utilization of our natural products deserves encouragement.</p> <p>Keywords: Melghat, Tribal Peoples, Ophthalmic problems</p>
	<p>INTRODUCTION</p> <p>The medicinal plants of India, used in 'Ayurveda', the ancient indigenous system and modern system of medicine have been systematically surveyed by Kirtikar and Basu (1985), Dastur (1951), Chopra <i>et al.</i> (1986). In spite of such an extensive work, there still exists a lot of hidden information regarding the medicinal properties of plants known to the local peoples in a particular area with which they are well acquainted. In the course of survey of vegetation of Melghat tribal region of West Vidarbha with special reference to medicinal plants, author come across interesting and useful information, regarding the use of some plants not incorporated in standard books. A brief report and interesting from therapeutics point of view and it is hoped this will be helpful in all eventuating human sufferings.</p> <p>'Melghat' means "Meeting of Ghats" which is just what the area is, a large tract of unending hills and ravines scarred by jagged cliffs and steep climbs. The exquisite hill forest, this undergrowth and moss covered trees underscore its virgin confines. It lies at the northern extreme of the Amravati district on the border of Madhya Pradesh, in the south western Satpuda mountain ranges. As</p>

a whole Melghat encompasses an area of 1,676.93km², which includes the 788.75 km² Melghat sanctuary and the 361.28 km² Gugamal National Park in the Vidarbha region of Maharashtra. The rest of the buffer zone includes 526.90 km² of reserve forest, located in the catchment area of river Tapti. Melghat a water harvesting forest supplies 30% of all the fresh water available to the people living in the vicinity. The forest of Melghat is of dry deciduous type. The general distribution of rainfall, change in altitude, nature of soil and geological formation are responsible in determining the local variations within the above broad type.

Various tribal communities like Korku, Bhill, Pawra, Gawali, Mhali are living in the Melghat and are dependent on forest for the medicines and their daily needs. A number of vaidos and taboos, even today, are giving medicines regularly to the tribal's and also in weekly markets. Some of the important and well

known medicine men are contacted and have collected the herbal medicines used by them in ophthalmic problems.

MATERIALS AND METHODS

An extensive exploration was made throughout the Melghat region along with medicine men. Their oral interviews were taken in forest and the number of plants had been collected. The collected material was dried and herbarium specimens were prepared and deposited in Department of Botany, Shri Shivaji College, Akola. All these specimens were properly identified by using floras Naik (1998), Singh and Karthikeyen (2000), Singh *et al.* (2001), Almeida (1999-2009), Sharma *et al.* (1996), Flora of Monocotyledons, earlier workers Bhogaonkar *et al.* (1999), Kamble *et al.* 1963, Deshmukh *et al.* (2003) also reported some ethno-medicinal work.

OBSERVATION AND RESULT

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| 1. Name: <i>Achyranthus aspera</i> L. | Family: Amaranthaceae |
| Uses: Roots of <i>Achyranthus</i> crushed, fine soft paste is prepared and applied to eyes for a month, take 2 drops of leaf juice of <i>Achyranthus</i> mixed with leaf juice of <i>Moringa</i> in equal quantity applied to eyes against conjunctivitis. | |
| 2. Name: <i>Adhathoda zaylanica</i> Medic. | Family: Acanthaceae |
| Uses: Leaf juice mixed with coarse sugar and applied to eyes for a month. | |
| 3. Name: <i>Sesbania grandiflora</i> (L.) Poir. | Family: Fabaceae |
| Uses: Leaf juice in a quantity of 4-5 drops put in eyes at night for a month for clear vision. | |
| 4. Name: <i>Zingiber officinale</i> Rosc. | Family: Zingiberaceae |
| Uses: Cow milk mixed with a fine powder of dried <i>Zingiber</i> and filter it; filtrate applied to eyes for a month. | |
| 5. Name: <i>Emblica officinalis</i> Gaertn. | Family: Euphorbiaceae |
| Uses: Fruit juice mixed with alum powder (turti), applied to eyes for a month. Immature fruit powder mixed with equal quantity of <i>Azadirachta</i> leaf and fine paste is prepared, applied externally on eyes that removes pain in eyes. | |
| 6. Name: <i>Terminalia chebula</i> Retz. | Family: Combretaceae |
| Name: <i>Terminalia bellerica</i> (Gaertn.) Roxb. | Family: Combretaceae |
| Name: <i>Emblica officinalis</i> Gaertn. | Family: Euphorbiaceae |
| Uses: Fruits of all in equal quantity crushed in a mixer grinder and fine powder is prepared. Take 10 gm powder mixed in equal quantity of ghee, take it orally for a month. Triphala powder mixed in glass of water and kept it for overnight, filter it early morning; filtrate used to clean eyes. | |
| 7. Name: <i>Trachyspermum ammi</i> (L.) Sprague | Family: Apiaceae |
| Uses: Ash obtained after burning the seeds of <i>Trachyspermum</i> used against ophthalmic problem. | |
| 8. Name: <i>Hemidesmus indicus</i> (L.) R.Br. | Family: Asclepiadaceae |
| Uses: Milky latex obtained from leaves applied to eyes. | |
| 9. Name: <i>Jasminum arborescens</i> Roxb. | Family: Oleaceae |
| Uses: Coarse sugar + salty powder + flowers of <i>Jasminum</i> , a tablet is prepared. Dried tablet mixed with honey and applied to eyes. | |

10. Name: *Pongamia pinnata* (L.) Pierre Family: Fabaceae
 Name: *Butea monosperma* (Lamk.) Taub. Family: Fabaceae
 Uses: Fine seed powder of *Pongamia* mixed with flower juice of *Butea*, then an elongated tablets are prepared; tablet with powder applied to eyes.
11. Name: *Momordica charantia* L. Family: Cucurbitaceae
 Uses: Leaf juice of *Momordica* mixed with a pinch of piper seed powder and applied to eyes for removal of colour/ night blindness.
12. Name: *Allium cepa* L. Family: Liliaceae
 Uses: Juice of *Allium* mixed with equal quantity in seed powder of *Strychnos*. In such solution keep a fine white cloth, carry it for seven times and dry it every time. Then dried cloth is mixed with ghee of cow and enlightened above the lamp; the soot above the lamp is collected, known as "Kajal", applied to eyes. Leaf juice of *Allium* mixed with honey in equal quantity; put 3-4 drops in eyes for curing conjunctivitis.
13. Name: *Argemone Mexicana* L. Family: Papaveraceae
 Uses: Flower juice of *Argemone* in a quantity of 3-4 drops put in eyes against conjunctivitis.
14. Name: *Coriandrum sativum* L. Family: Apiaceae
 Uses: Put 4-5 drops of *Coriandrum* juice in eyes for removing pains.
15. Name: *Aloe barbadensis* Mill. Family: Amaryllidaceae
 Name: *Strychnos potatorum* L.f. Family: Lauraceae
 Uses: Pulp of *Aloe* mixed with seed powder of *Strychnos* and alum powder; a tablet is prepared. A dried tablet along with honey applied to eyes. Also 3-4 drops of *Aloe* juice, put in to eyes against conjunctivitis.
16. Name: *Curcuma longa* L. Family: Zingiberaceae
 Name: *Papaver somniferum* L. Family: Papaveraceae
 Name: *Aloe barbadensis* Mill. Family: Amaryllidaceae
 Uses: Take 5gm juice of *Aloe* mixed with 2 gm of *Curcuma* and 1gm powder of *Papaver*; tied in cloth dipped in water for some time and applied to eyes.
17. Name: *Phoenix dactylifera* (L.)Roxb. Family: Palmae/ Arecaceae
 Uses: Seed powder of *Phoenix* mixed with honey applied to eyes.
18. Name: *Tinospora cordifolia* (Willd.) Miers. Family: Menispermaceae
 Name: *Terminalia chebula* Retz. Family: Combretaceae
 Name: *Terminalia bellerica* (Gaertn.) Roxb. Family: Combretaceae
 Name: *Emblica officinalis* Gaertn. Family: Euphorbiaceae
 Name: *Piper nigrum* L. Family: Piperaceae
 Uses: Take all above contents in equal quantities and with the help of grinder a fine powder is prepared; every morning take 20 gm of powder in two cups of water and decoction is prepared. Decanted filter mixed with 20 gm of honey and *Piper nigrum* powder take it orally for a month for brightness of eyes. Juice obtained from stem of *Tinospora* mixed with equal quantity of honey and pinch of salt applied to eyes for improvement of eye sight.
19. Name: *Emblica officinalis* Gaertn. Family: Euphorbiaceae
 Name: *Terminalia bellerica* (Gaertn.) Roxb. Family: Combretaceae
 Name: *Terminalia chebula* Retz. Family: Combretaceae
 Uses: Take triphala powder with equal quantity of ghee, take orally for a month for any kind of diseases of eyes.
20. Name: *Abrus precatorius* L. Family: Fabaceae
 Uses: Seeds of *Abrus* soaked in water overnight, then remove the seed coat, crush the seeds and prepare elongated tablets, along with lemon juice applied to eyes. Leaf juice of *Abrus* mixed with salt and applied to eyes. Roots of *Abrus* crushed with water and applied to eyes.
21. Name: *Sphaeranthus indicus* L. Family: Asteraceae
 Uses: Take the powder of *Sphaeranthus* and Triphala churna in equal quantity and mixed with ghee in equal proportion and take orally for a month against any problem of eyes.
22. Name: *Tamarindus indica* L. Family: Fabaceae
 Uses: Fine paste is prepared by using flowers and the paste applied externally during night, removes the heat in eyes.

23. Name: *Syzygium cumini* (L.) Skeels. Family: Myrtaceae
 Uses: Decoction is prepared by using inner bark, after cooling filter it; 3-4 drops of filtrate put into eyes for a month.
24. Name: *Punica granatum* L. Family: Puniaceae
 Uses: Juice of fruit in a quantity of 2-3 drops put in eyes for cleaning for a month.
- 25. Name: *Sesamum indicum* L.** Family: Pedaliaceae
 Name: *Piper nigrum* L. Family: Piperaceae
 Name: *Jasminum arborescens* Roxb. Family: Oleaceae
 Name: *Piper betle* L. Family: Piperaceae
 Name: *Strychnos potatorum* L.f. Family: Lauraceae
- Uses:** Flowers of *Sesamum*, *Jasminum*, seeds of *Piper nigrum*, *Piper betle* and *Strychnos* crushed together and tablets are prepared along with honey applied externally to eyes for 3 months. Also seeds of *Sesamum* crushed with water, filter it, 3-4 drops of filtrate put into eyes for removing pain. Immature fruit powders mixed with equal quantity of *Sesamum* powder and keep it overnight in water and in early morning paste is applied externally on eyes for a period of 2 hours for removing pain in eyes.

DISCUSSION

List of enumerated plants shows that Melghat tiger Reserve is rich in plants of high medicinal value. A preliminary survey of folk system and ethno-medicine of this region has indicated the use of 35 species of plants for ophthalmic problems. An urgent need, for documenting, the knowledge of villagers and the tribal's, so that the plants can be subjected to intensive screening for phytochemical and pharmacological actions of chemical components. This would pave the way for the use of locally available plants as medicines to combat many of the diseases, which are localised and sometimes epidemic as well. Such investigation would be helpful in achieving the goal of health for all. It is just an attempt to document information. There is a note of caution for the readers; the medicines must not be used without the prescription of practitioners. This documentation is intended to facilitate future studies on toxicity, pharmacology and phytochemistry.

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