

Herbal Remedies for Eye Problems: A Report on Ethnobotanical Survey of Banda District (U.P)

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Abstract: Human life style has drastically influenced by modernisation trends particularly, due to the adoption of various types of electronic gadgets. Now a days electronic gadget have become a status symbol of human life style. The presence of these gadgets though inseparable element of life of humans, yet their fanatic use produces harmful radiations causing lack of sleep and finally leading to various kinds of eye problems. Now pollution is everywhere from a technology to street. Human eyes are vulnerable to the effects of such technological pollution. Traditional uses of medicinal plants in healthcare practices are providing clues to new areas of research; hence their importance is now well recognized. However, information on the uses of indigenous plants for medicine is not well documented from many rural areas of Banda District. The study aims to look into the diversity of plant resources that are used by local people for curing various types of eye problems. A total of 31 species of plants belonging to 23 families were reported to be used by the rural people for the treatment of eye diseases.

Keywords: Indigenous plants, Traditional uses, Modernization, Electronic gadgets

1. Introduction

Now days eye problems common experienced by people of all ages due to changing of life style. According to WHO (World Health Organization, 2001), about 80% of the world's population, especially in the rural areas depends on herbal medicine for their healthcare needs. Due to changing life style, extreme secrecy of traditional healers and negligence of youngsters, the practice and dependence of ethnic and rural societies in folk medicines is in rapid decline globally, therefore, ethnobotanical exploitation and documentation of indigenous knowledge about the usefulness of such a vast pool of genetic resources is deliberately needed (Viswanadhan, 2004; Kumar & Tewari, 2003 and Singh, 2004).

Banda is one of the dry land and largest district among 7 district of Bundelkhandregion. It located between latitude 24° 53' and 24° 55' (North) and longitude 80° 27' and 84° 34'(East) with an area of 7624 sq. km. It is situated between the Vindhyan hills and the Yamuna River. The main river system in and surrounding of this district are Yamuna, Ken, Baghain, Chandrawal etc. among these Ken is the life line of this district.

2. Material and Methods

The present study is based on a survey of ethnobotanical survey of Banda district during March 2013-Jan 2014. During the field work, specimens of each plant of ethnomedicinal important were collected. Pressed dried, prepare herbarium plants were identified with the help of available floras and relevant literature of Oommachan (1977), Grewal (2000), Prajapati and Kumar (2003), Bhattacharjee and De (2005), and Dhiman (2006). Their specific medicinal value were verified with the knowledge of local people and also confirming the details available in recent studies. The herbarium of collected ethnomedicinal important plants was deposited to Department of Botany, Mahatma Gandhi Gramodya Vishwavidyalaya Chitrakoot (Satna), M.P., India.

3. Ethnomedicinal observations

The plant species were enumerated with its botanical name, family, local name and local uses in Table- 1. The plant species have been arranged alphabetically on the basis of their botanical name.

Table 1: Enumeration of plants used for various types of eyes problems.

S.N	Botanical name	Family name	Local name	Part used	Medicinal uses
1.	<i>Acacia arabica</i> (Lamk.) wild.	Mimosaceae	Babul	Bark	The leaves are astringent and beneficial to the eye. Extract of the bark is mixed with honey is applied in the eyes to relieve conjunctivitis and to stop lacrimination
2.	<i>Aegle Marmelose</i> Linn.	Rutaceae	Bael	Leaves and fruit	The extract of leaves is beneficial in the treatment of conjunctivitis and deafness.
3.	<i>Albizia lebbek</i> (L) Benth.	Fabaceae	Siris	Leaves	The leaves are useful in ophthalmia and nyctalopia.
4.	<i>Aloe barbedensis</i> Mill.Gard.	Liliaceae	Aloe-Vera	Fresh leaves	Fresh juice of leaves is cathartic and refrigerant used in eye troubles.
5	<i>Argemone maxicana</i> . Linn.	Papaveraceae	PeeliKataili/ Snail Kanta	Root	Latex used in dropsy, and eye troubles.
6	<i>Azadirachta indica</i> Juss.	Meliaceae	Neem	Seed	Seed oil is taken orally to cure reddening and inflammation of eyes.

7.	<i>Basella alba</i> Linn.	Basellaceae	Poi	Fruit	Fruit Juice is used in conjunctivitis.
8.	<i>Beta Vulgaris</i> , Linn.	Amaranthaceae	Chukandar	Rhizome	Fresh fruits/ juice is used as an eye tonic.
9.	<i>Blumea lacera</i> .Dc.	Asteraceae	Kukaronda	Leaves	The leaves are pounded in to paste and applied externally on eyes during conjunctivitis.
10.	<i>Cassia occidentalis</i> , Linn.	Caesalpiniaceae	Kasondi	Leaves	The leaves are used as poultice on eyes during conjunctivitis.
11.	<i>Commelina benhalensis</i> L.	Commelinaceae	Kanchara	Leaves	Leaves in eye trouble.
12.	<i>Curcuma longa</i> L.	Zingiberaceae	Haladi	Rhizome	Rhizome and black pepper powder is applied in case of cataract of lens.
13.	<i>Cynodon dactylon</i> , Linn.	Poaceae	Doobghas/ haridoob	whole plant	The extract of whole plant is useful in curing diarrhoea and ophthalmia. Paste applied externally and redness of eye to relieve the eye pain.
14.	<i>Dalbergia sissoo</i> , Roxb.	Fabaceae	Sheesham	Leaves	The leaves are pounded and applied on eyes during conjunctivitis.
15.	<i>Daucus carota</i> L.	Apiaceae	Gajar	Whole plant	The juice of tuber is taken orally for strong eyesight.
16.	<i>Eupatorium adenophorum</i> Sprengel.	Asteraceae	Banmara	Leaves	A paste of the leaf is applied to treat eyes insomnia.
17.	<i>Euphorbia hirta</i> Linn.	Euphorbiaceae	Badidudhi	Latex	For conjunctivitis, latex is applied on fore head twice a day till cure.
18.	<i>Flacourtia indica</i> Merr.	Flacourtiaceae	Kanker	Leaf sap	Leaf sap is dropped in to eyes to cure conjunctivitis.
19.	<i>Leucas aspera</i> (wild) Spreng.	Laminaceae	Chhotahalkusa	Leaves	Juice of leaves is filtered through a clean cloth and 1-2 drops are put in the eyes against conjunctivitis.
20.	<i>Nerium odorum</i> Soland,	Apocyanaceae	Kaner	Leaves	The juice of the young leaves is poured into the eyes of ophthalmia.
21.	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Anola'	Leaves	Fresh Leaves juice (2 ml) with diluted solution of common salt (1 ml) used as a drop in eyes for improving weak eyesight.
22.	<i>Psidium guajava</i> Linn.	Myrtaceae	Bihi	Leaves	Young leaves are pound and make paste then externally applied on eyes in conjunctivitis.
23.	<i>Rauwolfia serpentine</i> (Linn.) Benth. Ex Kurz.	Apocynaceae	Sargandha	Leaves	Juice of leaves used for removal of opacities of the cornea.
24.	<i>Rosa damascene</i> mill.	Rosaceae	Gulab	Flower	Flowers are employed in the treatment of conjunctivitis. Rose water also used as a inflammation of eyes.
25.	<i>Scirpus grossus</i> , Linn.	cyperaceae	Kasheru	Rhizome	The pounded rhizome is used on lids in eye diseases.
26.	<i>Solanum tuberosum</i> L.	Solanaceae	Aaloo	Rhizome	Grate a potato and Place on the eye for reduce the inflammation.
27.	<i>Sphaeranthus indicus</i> Linn.	Asteraceae	Mundi	Floral head	The floral head is taken with water in eye infection.
28.	<i>Tamarindus indica</i> , Linn.	Caesalpiniaceae	Imli	Leaves	Expressed juice of the leaves is applied on eyelids in case of inflammation in eyes.
29.	<i>Tinospora cordifolia</i> , Miers.	Menispermaceae	Giloe/ Gurich	Leaves	Leaves are crushed and applied on eyelids for the treatment of eye infections.
30.	<i>Vernonia cineria</i> Less.	Asteraceae	Sahdevi	Leaf	Leaf juice is dropped in to eyes or curing eye diseases.
31.	<i>Xanthium strumarium</i> , Linn.	Asteraceae	Chhota- gokhru	Fruits	Paste of the fresh fruits are used for eye infections.

4. Results and Discussion

The investigation revealed that 31 plants species belonging to 23 families are recorded as effective remedies used by the tribal and rural people to cure different types of eye problems of Banda district. It is evident from the present study that the tribal communities are depending on a variety of plants to meet their requirement and beliefs to cure eyes problems in their daily life. The plant species are commonly available in the region and play special role in folk medicine. These plants possess valuable medicinal and industrial uses, and they have big demand in national and international pharmaceutical markets. The study suggested that there is an urgent need of:

- Documentation of herbal remedies for eye problems.
- Identification of industrial uses of locally available medicinal plants.
- Establishment of proper linkage between village level co-operative societies and national and international pharmaceutical distributors.
- Identification of cultivated fields having higher density of particular medicinal plants.

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