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# 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 240 53' and 240 55' (North) and longitude 800 27' and 840 34'(East) with and 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. | ***Acacia arabica* (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 stoplacrimination |
| 2. | ***Aegle Marmelose* Linn.** | Rutaceae | Bael | Leaves and fruit | The extract of leaves is beneficial in the treatment of conjuctivitis and deafness. |
| 3. | ***Albizzia lebbeck*(L) Benth.** | Fabaceae | Siris | Leaves | The leaves are useful in opthalmia and nyctalopia. |
| 4. | ***Aloe barbedensis* Mill.Gard.** | Liliaceae | Aloe-Vera | Fresh leaves | Fresh juice of leaves is catharatic and refrigent used in eye troubles. |
| 5 | ***Argemone maxicana.* Linn.** | Papaveraceae | PeeliKataili/ Snail Kanta | Root | Latex used in dropsy, and eye troubles. |
| 6 | ***Azadirachta indica* Juss.** | Meliaceae | Neem | Seed | Seed oil is taken orally to cure reddening and inflammation of eyes. |

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