

ETHNOBOTANY OF MEDICINAL PLANTS USED BY THE TRIBAL PEOPLE OF RAJASTHAN FOR DIGESTIVE DISORDERS

MUKESH SHARMA* and SHARAD VATS

Department of Botany, University of Rajasthan, Jaipur-302004, India.

*Email:mukesh.uniraj@gmail.com

The floral wealth of Rajasthan is rich and varied. An ethnobotanical survey was undertaken to collect information from traditional healers on the use of 16 medicinal plants species, in different districts of Rajasthan, which cure digestive disorders. The indigenous knowledge of local traditional healers and the native plants used for medicinal purposes were collected through questionnaire and personal interviews during field trips.

Keywords: Digestive disorders; Ethnobotanical survey; Rajasthan; Traditional healers.

The colorful and exotic state of Rajasthan lies in the northwestern part of India and is the biggest state in the country. This colossal state has an area of 3, 42,239 sq km encompassing 11% of the total geographical area of the country. The main tribes of Rajasthan are Bhills and Minas. It is a region of lofty rocks, rolling sand dunes, of burning heat and freezing cold, of fertile plains and deep wild glens and jungles. The Aravalli range, which is the oldest folded range in the world, divides the area into two natural divisions- North-West and South-East.

Plants have been used in traditional medicine for several thousand years¹. The knowledge of medicinal plants has been accumulated in the course of many centuries based on different medicinal systems such as Ayurveda, Unani and Siddha. In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine². Documenting the indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of biological resources. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases³. The information of indigenous plants used by the tribals for various diseases in Rajasthan have been studied by Singh and Pandey⁴, Billore⁵, Sebastian and Bhandari⁶, Khan *et al.*⁷, and Trivedi⁸.

Local traditional healers having practical knowledge of plants and their medicinal values were interviewed in different districts of Rajasthan during October 2005 – March 2006. Methods of selecting informants depended upon the distribution of local people having folk knowledge. These people were selected based on their knowledge of medicinal plants either for self-medication or for treating others. They were requested to collect specimens of the plants they knew or to show the plant species on site. The species mentioned

by the informants were taxonomically identified. Ethnomedicinal data were collected through general conversations with the informants. The questionnaires were used to obtain information on medicinal plants with their local names, parts used, mode of preparation and administration. The wealth of medicinal plant knowledge among the people of various districts is based on hundreds of years of beliefs and observations. This knowledge has been transmitted orally from generation to generation, however it seems that it is vanishing from the modern society since younger people are not interested to carry on this tradition. The collected plant species were identified with the help of herbaria by comparing vouchers with standard herbarium sheets. Also, the informations were cross checked with literature from authentic journals.

In the present study, 16 medicinal plants were surveyed to assess their therapeutic significance in curing various digestive disorders. The details of the plants with their Local Name (L.N.) - Hindi (H), English (E), Sanskrit (S) and Malayalam (M) together with the Mode of Administration (MOA) is given below.

1. *Achyranthes aspera* Linn.
Family-Amaranthaceae
L.N.-Oondho-kanto (H), Apamarga (S), Prickly chaff-flower (E), Kadaladi (M)
M.O.A. – Seed paste taken orally with cow milk in dysentery.
2. *Adhatoda vasika* Nees
Family- Acanthaceae
L.N.- Adusa (H), Vasaka (S), Malabar nut (E), Ataloetakam (M)
M.O.A.- Seeds powder taken orally with milk in diarrhoea
3. *Aegle marmelos* Linn.

- Family- Rutaceae
L.N.- Beel (H), Bilva (S), Bengal quince(E), Vilvam (M)
M.O.A.- Fruit taken orally in diarrhea.
4. *Argemone maxicana* Linn.
Family- Papaveraceae
L.N.- Satyanasi (H), Brahmadandi (S), Maxican poppy (E), Ponnummattam (M)
M.O.A.- Few drops of seedoil with sugar taken in constipation
5. *Asparagus racemosus* Willd.
Family-Liliaceae
L.N.- Satavari (H), Shatamoolee (S), Satavare(E), Shatavali(M)
M.O.A.- Root taken orally in appetite
6. *Cassia fistula* Linn.
Family- Caesalpiniaceae
L.N.- Amaltas (H), Suvarnaka (S), Pudding-pipe tree (E), Konna (M)
M.O.A.- Pulp of pods given orally in antihelminthic
7. *Cassia tora* Linn.
Family- Caesalpiniaceae
L.N.- Punwad (H), Ayudham (S), Chakunda (E), Takara (M)
M.O.A.- Juice of leaves taken orally in constipation.
8. *Citrullus colocynthis* Schrad.
Family- Cucurbitaceae
L.N.- Toomba (H), Indravaruni (S), Colocynth (E), Paikum-mate (M)
M.O.A.- Fruit juice given orally in gastritis
9. *Euphorbia nerifolia* Linn.
Family- Euphorbiaceae
L.N.- Thur (H), Svarasana (S), Sehund (E), Gangichu (M)
M.O.A.- Leaves paste given orally in gastritis
10. *Ferula asafetida* Regel
Family- Apiaceae
L.N.- Hing (H), Hingu (S), Asafetida (E), Kayam(M)
M.O.A.- Resin powder taken orally with water in gastritis
11. *Ficus bengalensis* Linn.
Family- Moraceae
L.N.- Bad (H), Vata (S), Banyan tree (E), Vatam (M)
M.O.A.- Leaves decoction taken orally in diarrhoea
12. *Mangifera indica* Linn.
Family- (Anacardiaceae)
L.N.- Amba (H), Amra (S), Mango tree (E), Mavu (M)
M.O.A.- Cotyledons powder taken orally with honey in diarrhea
13. *Oxalis corniculata* Linn.
Family- Oxalidaceae
L.N.- Khatti buti (H), Amlalonika (S), Indian sorrel (E), Pullampurachi (M)
M.O.A.- Extract of leaves taken orally in appetite
14. *Pedaliium murex* Linn.
Family- Pedaliaceae
L.N.- Dakhani gokhru (H), Gaja daunstree (S) Bada gokhru (E), Kaka mulla (M)
M.O.A.- Plant extract taken orally in appetite
15. *Plumbago zeylanica* Linn.
Family- Plumbaginaceae
L.N.- Chakwad (H), Chitraka (S), Leadwort (E), Vellakotu-veri (M)
M.O.A.- Root extract taken orally in appetite
16. *Ricinus communis* Linn.
Family- Euphorbiaceae
L.N.- Arandi (H), Erandam (S), Castor (E), Chittamanakku (M)
M.O.A.- Seed pulp taken orally with milk in dyspepsia

The above survey clearly reveals the floral diversity of Rajasthan containing different medicinally important plants, which are used for curing digestive disorders. The tribals are using these plants effectively and extensively, but these plants require much more clinical studies for their proper utilization and understanding.

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References

1. Abu-Rabia A 2005, Urinary diseases and Ethnobotany among pastoral nomads in the Middle East. *J. Ethnobiol. and Ethnomedicine* 1 4
2. Pei S J 2001, Ethnobotanical approaches of traditional medicine studies: Some experiences from Asia. *Pharma. Biol.* 39 74-79
3. Azaizeh H, Fulder S, Khalil K, Said O 2003, Ethnomedicinal knowledge of local Arab practitioners in the Middle East Region. *Fitoterapia* 74 98-108.
4. Singh V and Pardey R P 1996, Ethnomedicinal plants used for venereal and gynaecological diseases in Rajasthan (India). *J. Econ. Tax. Bot. Addle. Ser.* 12 154-165.
5. Billore K V 1984, Ethno-Medicinal lores from Bhil tribes of Banswara. *J. Indian Bot. Soc.* 63 45.
6. Sebastian M K and Bhandari M M 1984, Medico-ethnobotany of Mount Abu, Rajasthan, India. *J. Ethnopharmacol.* 12 223-230.
7. Khan S M, Chagtal S A and Khan S S 1988, Plant abortifacients of Banswara, Rajasthan (India). *Indian J. Applied and Pure Bio.* 3 115-118.
8. Trivedi P C 2002, Ethnomedicinal plants of Rajasthan state, India. In : Ethnobotany (Ed P.C. Trivedi) Aavishkar Publishers, Jaipur, India. pp 412-439.