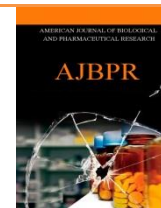




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STUDIES ON SOME MEDICINAL ASTERACEOUS PLANT SPECIES OF SACRED GROVE RESERVE FOREST AREA TARANAGAR OF CHURU DISTRICT, RAJASTHAN

Solanki Deependra*, Khan JB* and Kapoor BBS**

*P.G. Department of Botany, Govt. Lohia P.G. College, Churu-331001, India.

**P.G. Department of Botany, Govt. Dungar College, Bikaner-334003, India.

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ABSTRACT

Sacred Grove Reserve Forest Area Taranagar is situated in Churu district of Rajasthan and rich in medicinal plant wealth. These plants have been used by Local residents, Tribal communities, Ayurveda practitioners, Hakims and subject experts since long time in traditional remedies. Kalbelia, Nats, Raika, Banjara, Gadolia-Lohar and Bavariya tribal communities of this area have a rich knowledge of plants based traditional medicines. Asteraceae is the largest family of angiosperms. In the present paper ten selected plant species of Asteraceae family have been selected for research work, which are used extensively by local people and tribal communities as traditional medicines. The listing includes botanical names, family, common names, and medicinal uses. These asteraceous plant species are very useful from phytochemical, pharmacological and pharmaceutical point of view.

INTRODUCTION

Churu district is situated in the Indian Thar Desert area. Arid zone plants of this region are useful for the welfare of human beings and livestock. Kalbelia, Nats, Raika, Banjara, Gadolia-Lohar and Bavariya tribal communities of Churu district have a rich knowledge of plants based traditional medicines used in herbal and folk remedies. Flora of Rajasthan has been reviewed and documented earlier by many workers. The plants of this arid region have been studied for their medicinal uses in herbal and folk remedies by many workers [1-21]. The studies have been undertaken for such Asteraceous plant species that are used extensively by the local residents, Hakims, Ayurveda practitioners and tribal communities of study area.

The present investigation is very useful for pharmacologists, phytochemists and pharmaceuticals.

STUDY AREA

Sacred Grove Reserve Forest Area Taranagar lies in Churu district, which is also called as 'Shyam Pandia Temple' reserve forest area. The area of this site is 141.3078 hectare. It is situated from 28°74'N Latitude and 74°99'E Longitude to 28°73'N Latitude and 75°00'E Longitude. This site is surrounded by Nethwa village in north side, Rewasi village in west side, Kailash village in south side and Bhalau taal village in east side. It is approximately 5 Km far from Taranagar to Sahwa road. According to the record of Forest Department Churu, the selected study area is a 'Sacred Grove'. A very famous 'Shyam Pandia Temple' is situated in the middle of this area on the top of a huge sand dune. This lush green sand dune looks like a small

Corresponding Author

Solanki Deependra

Email:- solanki.deependra@gmail.com



mountain. A famous pond, which is known as 'Bhim Kund', is also there. So this is a holy and religious place for local people. This area is highly protected and harmful human activities are not allowed here. There is only a way of going to the temple. People need to walk about one kilometer to reach the temple. People are allowed to protect and preserve local flora and fauna in this area but destructive activities are not allowed at any cost. The Biodiversity of this Sacred Grove is highly rich. A variety of flora and fauna can be seen here. So this site has been selected for research purpose to explore medicinal plant diversity.

MATERIAL AND METHODS

The ten selected Asteraceous plant species growing in Sacred Grove Reserve Forest Area and their voucher plant specimens have been collected and maintained in the herbarium, P.G. Department of Botany, Govt. Lohia P.G. College, Churu.

To collect and document this valuable information, several field trips were made in the study area. Interviews were conducted with experienced people of various local communities, vendors, Hakims, tribals and Ayurveda practitioners, as they possess inherited knowledge regarding the plants of ethno-medicinal importance. Repeated enquiries and group discussion on the use of same plant were made to ascertain the authenticity of information.

OBSERVATIONS AND DISCUSSION

The ten selected Asteraceous plant species are described here in brief with their botanical name, family, local name and medicinal uses.

1. ***Ageratum conyzoides* Linn.**
Family: Asteraceae
Local Name: Chikweed, Goatweed,
Medicinal Uses: The leaves of this plant are used to cure eye disorders like cataract and conjunctivitis. It is used to cure dysentery and diarrhoea. It is used to cure gynecological disorders. It is used in the treatment of burns and wounds. It is used to cure headache and pneumonia. It is also used as insecticide and nematocide.
2. ***Artemisia scoparia* Waldst.**
Family: Asteraceae
Local Name: Bana Dona
Medicinal Uses: The whole plant is used as medicine. Its smoke is considered good for burns. The Juice of this plant is used as a cure for pain in ear. It has antibacterial, antiseptic, antipyretic, vasodilator and diuretic properties. This herb is currently used for the treatment of the Jaundice and hepatitis.
3. ***Echinops echinatus* Roxb.**
Family: Asteraceae
Local Name: Oont-kanti, Oont-katalo
Medicinal Uses: The tribals apply root powder mixed with gum of *Acacia senegal* (Kumatio) to destroy lice, ticks and to heal up the wounds of cattle. Decoction of roots is placed in the navel of women for easy and quick delivery by the tribals. The tribals take orally the infusion of plant with Jaggery (Gur) to cure cough, hysteria, dyspepsia and seminal debility. The tribals, however, boil the pieces of roots in milk and drink the latter for sexual vigour. They also take orally the extract of roots to cure cough and cold. In Churu district, the tribals apply the root paste on the body in fever. The tribes give infusion of leaves and inflorescence in the morning for seven day to the barren ladies to induce fertility.
4. ***Eclipta alba* (Linn.) Hassk.**
Family: Asteraceae
Local Name: Jal bhangro, Bhangro, Jalmagra, Bhrangraj
Medicinal Uses: Traditional medicinal system as well as tribal practitioners considers the plant to have diverse medicinal values and use it commonly for treatment of gastrointestinal disorders, respiratory tract disorders (including asthma), fever, hair loss and graying of hair. The leaf juice is taken orally with honey in jaundice, diarrhoea and dysentery. The paste of stem and leaves is applied externally in human to cure skin diseases. Paste of leaves is applied in head as a hair dye, and to check premature fall of hairs and to give cooling effect to the brain. Local Vaid prescribe the decoction of leaves with candy for stimulating the appetite and digestion in anaemia and general debility. They also prescribe a few drops of oil of plant to cure liver and spleen enlargement in jaundice. The paste of whole plant is applied on the swellings. The root has purgative and emetic properties; it is also used to cure dropsy.
5. ***Launea procumbens* Linn.**
Family: Asteraceae
Local Name: Jangligobi, Van-gobi, Roorhadi
Medicinal Uses: The paste of leaves is applied locally to cure piles. The leaf extract is taken orally by the tribals in acute dysentery. It acts as anti-inflammatory agent. The juice of plant excluding roots is used to cure skin disorders. It is used to treat liver disorders, kidney disorders, painful urination and reproductive disorders. It is also used to treat rheumatism. It is useful in wound healing. It has anti-cancer property and used to cure leukemia.



6. *Parthenium hysterophorus* Linn.

Family: Asteraceae

Local Name: Santa – maria, White top weed, Congress grass, Carrot grass, Gajar ghas

Medicinal Uses: The decoction of this plant is used to treat fevers. It is used to cure diarrhoea, dysentery, neurological disorders and urinary tract infection. Root decoction is used to cure dysentery. It is used to cure malaria. It is used to cure headache. Roots and stems are used to cure skin disorders like cuts and wounds. It is used to cure anemia. It is used to cure heart troubles. It is used to cure rheumatic pain. It is used to cure diabetes. It is also used as analgesic and vermifuge.

7. *Pulicaria crispa* (Cass.) Benth and Hook.

Family: Asteraceae

Local Name: Dhola lizru (Macadam).

Medicinal Uses: The bruised leaves are applied to relieve headache. The plants are dried in shade and powdered which is applied to bullocks and camels to heal up the wounds. It has antiseptic properties. It is used in treatment of skin infections and gastrointestinal disturbances. It is used in native medicine to treat inflammation and as an insect repellent. It is demonstrated strong growth inhibition of the malaria parasite *Plasmodium falciparum*. It has anticancer properties.

8. *Sonchus asper* Hill.

Family: Asteraceae

Local Name: Kali-jibi.

Medicinal Uses: The plant juice is applied externally on old wounds and boils. It has antiseptic properties. The juice of plant is taken orally with sugar to cure liver diseases, particularly enlarged liver and cirrhosis. It cures old fever. Plant extracts are used in the treatment of cough and cold.

9. *Tridax procumbens* Linn.

Family: Asteraceae

Local Name: Kalal, Pilo-bayoni, Pebula-ka-mocha

Medicinal Uses: The tribals apply the juice of plant on cuts to check bleeding. Tribals apply leaf juice locally against boils and blisters and take orally to cure dysentery and diarrhoea. They also apply the paste of leaves on the head to cure headache and on the eyes to cure inflammation. The tribals smell leaf-paste to cure epistaxis. Paste of leaves is applied locally as well as taken orally to cure piles, whereas leaf powder along with gram powder *Cicer arietinum* in 2:1 ratio is taken orally early in the morning to check sugar level in diabetes. Root powder is taken orally by the tribal

ladies to cure leucorrhoea. Leaf paste is applied on the wounds as a styptic.

10. *Xanthium strumarium* Linn.

Family: Asteraceae

Local Name: Chhota gokhru, Raktapuspi

Medicinal Uses: The Juice of plant is applied to cure headache. The oil obtained from the fruits, is applied on eczema and scabies. The leaf-paste of it, is applied to cure leucoderma. Seeds are burnt on fire and inhale-fumes to cure piles. It is used to improve appetite, memory and voice. It is used in treatment of malaria. Its leaves exhibited trypanocidal activity against *Trypanosoma evansi*. The juice of plant is used as tonic. It is used in treatment of poisonous bites of insects. It has anthelmintic properties. It has anticancer properties. Oil extracted from the seeds is used in toothache. The extract of plant is digestive, antipyretic, diaphoretic and sedative. It is used in epilepsy. It has germicidal properties. The leaf juice is poured in the ear by the tribals to cure earache and to stop pus formation. The seed powder is mixed with lemon juice and water given orally in dysuria. Seed paste is also applied locally in bodyache. Infusion of root is applied on ulcer and boils. Tender roots of plant (10 gm) are chewed twice a day to cure toothache. Root extracts used to cure ulcers and boils.

CONCLUSION

Sacred Grove Reserve Forest Area Taranagar is situated in Churu district of Rajasthan and rich in plant wealth. The Asteraceous plant species which are growing in this area are used as traditional medicines for the diseases of human beings and domestic animals. Asteraceae is the largest family of angiosperms. These Asteraceous plant species have been used by local residents, tribal communities, vendors, Hakims and Ayurveda practitioners since long time in herbal and folk remedies. Kalbelia, Nats, Raika, Banjara, Gadolia-Lohar, Bavariya, tribal communities of this area have a rich knowledge of plants based traditional medicines. Hence, these Asteraceous plant species have great potential to be used in drug and pharmaceutical industries.

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