

Study of Ethno-Medicinal Plant of Sapotra tehsil in Karauli District, Rajasthan, India



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Abstract

Sapotra tehsil of Karauli district of eastern Rajasthan have dominated tribal community, whose main occupation is agriculture as well as animal husbandry is the second largest occupation. The people of the traditional community have a rich knowledge about medicinal use of local flora, whose knowledge is limited to the people of the tribal community and the traditional community is carrier of medicinal science. Knowledge continues to be passed on from generation to generation, but as an exception, knowledge of forest medicinal plants is not disclosed to any other due to lack of son / progeny / premature death by many tribal exorcists and this heritage would disappear with their death. In this paper, we are studying about various parts of 35 plant species of 20 families, such as root, stem, leaf, fruit, flowers, bark, gum and latex etc. used as household remedies by tribal community of Sapotra tehsil of Karauli district. Local residents of the area have been treating diseases like stomach pain, diarrhoea, cough, cold, impotence, jaundice, body tonic, pregnancy, abortion, cough, Blisters, swelling, sprains, fever, fracture, urinary problem, scorpion bite, snake bite, piles, dysentery, vomiting, etc. from generation to generation by plant products. They contain information about the quantity and how to take these ethno-medicine.

Keywords: Tribal community, Traditional, Ethno-medicine, Dang, Harbarium, Ingredients, Decoction

Introduction

The Dang region of eastern Rajasthan has an important role in biodiversity, different type of plant species for example *Acacia nilotica*(L.), *Argemone Mexicana*, *Acacia catechu*, *Adhatoda vasica*, *Azardirecta indica*, *Urginea indica* are found here in which many plant species are used in home remedies but *Anogissus pendula* in this area is found as abundance. After contacting or interacting with local communities, an attempt has been made to write in this research paper.

The history of medicinal use of forest medicinal plants is associated with the development of mankind. *Charak Samhita* and *Sushruta Samhita* are the two oldest written texts of Ayurved. Similarly, the tribes also have information about the medicinal properties of many plants from ancient times which have been used in the treatment of various diseases, since ancient times and a lot of medicinal information is limited to them which comes out only after contact or interaction with them. Rajasthan has 9238534 tribe population which is 8.85% of the entire population of India and 13.5% of the entire population of Rajasthan which mainly resides in Udaipur, Dungarpur, Banswara, Pratapgarh, Dausa, Sawaimadhopur, Karauli and Rajsamand districts. Meena is a major tribal community in eastern Rajasthan And Gujar, Jogi, Kanjar, Sansi, Mali, Mogia etc. are the traditional community whose main occupation is agriculture as well as animal husbandry is the second largest business. Tribal and traditional communities in this area, reared cows, sheep, goats, buffalo and dogs are reared as domestic animals. People of tribal and traditional communities have rich knowledge of forest medicinal plants in their surroundings, knowledge of which is limited to the people of tribal community and traditional community. The knowledge of medicinal science keeps on going from generation to generation, but as an exception, many tribal ojha in the absence of son / child / due to premature death,

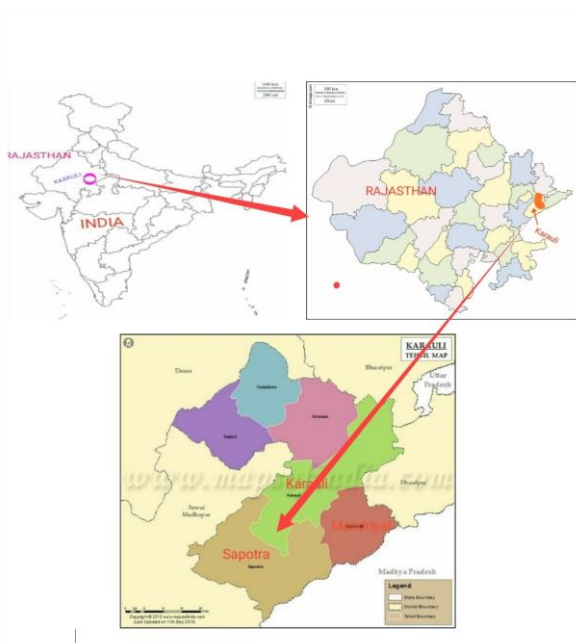
knowledge of forest medicinal plants is not told to anyone else and this heritage disappears with their death. (Sharma &Khandelwal, 2018)

Tribal community and other local community use the flora found there in daily life while living in a remote area, there is a long intensive study is still going on which highlights the ethno-medicinal plant found in Rajasthan by Joshi (1995). 384 medicinal plants found in Rajasthan were reported by Katewa and Jain (2006) but this work was done in South Rajasthan. Ethnomedicinal plant of eastern Rajasthan was studied by Leena Sharma & Sitaram Khandelwal (2018), ethno-medicinal plants of the karauli district were studied by Meena et.al. (2003), Glimpses on ethno-veterinary plants of karauli district by Meena and Kumar (2015), Siliserh, alwar by Agrawal (2017) and western Rajasthan (Jaisalmer) by Alwar Kumar (2009)

1. Discussion about various botanical aspects with tribal 88 Ojhas of different villages
2. Interrogation with Elderly men/women of tribal community in individually and in groups.
3. Information about ethno-medicine was discussed with Hakeem, local vaidh, Bhopas, Gothiyas. (Meena & Kumar, 2015)

To know the ethno-medicine importance of forest medicinal plants to collect valuable information from various mediums such as inquiry, observation, interview, approach with Old man, tribal Ojhas, Hakeem, local vaidh, Bhopas, Gothiyas. First of all data was collected by communicating with the head of village, sarpanch, panch- patel and elders . (Sharma &Khandelwal, 2018)

Plant specimens were collected to prepare herbarium sheets. Herbarium sheets of all the plants are stored in department of botany govt college Tonk, Rajasthan for further reference. Not only men but also some women of tribal and traditional communities also have knowledge about traditional medicine derived from many medicinal plants. Tribal and traditional communities in Eastern Rajasthan's Karauli district in the use of various diseases as medicine by the local community. The plant species to be taken are included below. (Table-1).



Aim of the Study

To explore the ethno-medicine knowledge of tribal and local Communities of the study area and information about the diversity of ethno-medicinal plants.

Survey area

A survey was conducted of 250 men from 58 villages of karanpur dang, Mandrayal and Sapotra tehsils of Karauli district in eastern Rajasthan, whose geographical location is between 26°29' N to 26°49' N and 76°74' E to 77°34' E. (Sekhawat & Batra, 2005)

Fig.1.Location of Survey Area of Karauli District (Katewa &Galva, 2004)

Materials and Methods

Data collected through interviews ,observations, and participations, inquiry

Observation

S. no	Local Name	Botanical Name	Family	Plant part used	Ailment	Method of treatment
	Bamool / Bamoor	Acacia nilotica(L.)	Mimosaceae	Gum	Dry Cough	Taking one tablespoon of gum and mixing it with one spoon of sugar kandy is taken twice a day.
				Bark	Diabetes, sore throat	Chewing gum. Chewing gum/By heating the bark of Acacia nilotica with water, filter the water, mix rock salt and gargle.
				Leaves	Cough	One fourth teaspoon of ground leaves mixed with one teaspoon of honey with warm water 2 times a day.
					Urinary problem	Take 2 gm leaves of Acacia biological with 1 gm Pedalium murex (Gokhru) and crushed,taken before bedtime with warm water.
					Cold sores	By chewing 2 grams of soft green leaves on an empty stomach in the morning or paste of leaves with curd.
				Fruit/ Pod	premature ejaculation. Diabetes	
					Pain of ear	To increase the sexual capacity and prevent premature ejaculation.Dry the seedless pods in the shade and Grind equal quantities of the sugar and prepare the powder and take it daily in the evening with a glass of warm milk before bedtime
				Flower	Pneumonia	The seeds of the fruit are extracted and made into a powder, one spoon each morning and evening with water. After taking 100 ml sesamum indicum oil, put 10 flowers of Asia Nilotica in it and after two days, when it turns dark, then after cooling, filter it and put two to three drops daily in the ear. Boil one spoonful of flower with gud and take it once a day with Trachyspermum ammi and Syzgium aromaticum.
	Satyanasi / pili kateli	Argemone Mexicana	Papaveraceae	Seeds	Protrusion	The banana roots are boiled in water and filtered and the Powder of the seeds of Argentina maxican is mixed with banana water and given to animals.
				Latex	Rhumatic pain	Seed oil is used in skin problems and headaches.
					Eye flu	Satanashi's milk is massaged on the knees.

						The latex of Satyanasi is inserted
Khair	Acacia catechu	Mimosaceae	Leaves Khair gum Bark	Cough, Stomach problem Cough, Bronchitis Dry cough	Acacia catechu plant extract provides immediate relief in sore throat. Extract of Acacia catechu is taken together with milk. Ladoos are made by frying gum in ghee with unrefined sugar for back pain joint pain and general ailments, which are eaten for conception after delivery and before menstruation. Chewing of bark.	
Oonga/ Aandhee/ jhaada/ Latjeera	Achyranthes aspera	Amaranthaceae	Leaves, stem, root Root Leaves	Toothache, teeth whitening Itching Cough ,Cold, typhoid Teeth pain Wound Insect bite	The root and stem of Achyranthes aspera are used to reduce the swelling of gums and teeth whitening. to cure itching caused by Mucuna purines, the roots of Achyranthes aspera are boiling them in water and bathed. Prepare a decoction of roots and cure cough, cold, and typhoid. In the pain of teeth, the roots are crushed and placed between the teeth. Paste of leaves help in heading of wound. Paste of leaves help in loading the pain.	
Sitaphal	Annona squamosa L.	Annonaceae	Leaves Seeds	Diarrhoea pediculus and lice	Diarrhoea is triggered by taking out the juice of the leaves and feeding the animals. Grinding the seeds and making a paste and applying them in the head , to kill the pediculus and lice	
Satavari	Asparagus racemosus	Liliaceae	Roots	Impotency/increase sexual ability, Lactagogue To stop abortion. Health tonic, Stomachache	A teaspoon of root powder is taken with hot milk at night made at night. Used in making laddoes with the use of root powder. Roots are eaten raw for good health.	

Garlic / Lahsun	Allium sativum	Liliaceae	Falkes	Lactagogue Cough Ear pain Ringworm	Making Kheer with milk and given orally twice a day for three day. Garlic falkes is kept in wet clothes and roasted to ashes and eaten at bedtime. Take a little sesame oil and put garlic bud in it and heat it. After that, after cooling,2-3 drops are put in the ear, which cures ear pain. A paste with chirol leaves is applied to the ringworm area
Adsuta/ Basouda	Adhatoda vasica	Acaanthaceae	Leaves	Cough and Cold	Decoction of leaves is taken twice a day for three days.
Ratti	Abrus precatorius L.	Papilionaceae	Leaves	Cure wound ,blisters	Paste of leaves Chewing the leaves early in the morning and evening
Hingota	Balanites aegyptiaca L.	Balanitaceae	Kernel Root	Cure cough Pimples ,boils Wounds healing Haemorrhage Prevent hair falling	Roasted fruit kernel with jaggery, twice a day for three days. The ointment is made by rubbing roasted kernel in cow's ghee on a stone. The ointment is made by rubbing roasted kernel in sesame oil on a stone. The roots are mashed and soaked in water over night, Water is fed on an empty stomach in the morning. Fruit pulp /kernel paste is used to prevent hair fall.
Santi	Boerhavia diffusa L.	Nyctaginaceae	Root	Stomach ache /vomiting Liver dysfunction, Urinary tract infection	The roots are given orally by mashing them in water and making a paste with sugar. Roots powder is made and given to the hungry stomach for 1 week.
Amaltas	Cassia fistula	Caesalpiniaceae	Bark	Diarrhoea	The bark of stem is crushed and soaked in water overnight and orally given in the morning.
Kasondi	Cassia occidentals.L	Caesalpiniaceae	Leaves	Bone fracture	The leaves are mashed and mixed with egg albumin and sheep milk and applied on the fractured area.

	Gokhru	Tribulis terrestris	Zygophyllaceae	Seeds Plant extract	Improves health after delivery. Reduced body heat in summer Urinary stone	Laddooes are made with turmeric powder, dried ginger, seeds of ammi and kamarcus ka gond along with the powder of the seeds, which improves health after delivery. Plant extract/ seed powder is taken for 1 week.
	Chirol	Holoptelea integrifolia	Ulmaceae	Leaves	Ringworm	Making a paste with garlic and applied to the ringworm area.
	Aak	California procera	Asclepiadaceae	Latex Leaves	Thorn injury. jaundice	The latex is mixed with tobacco and heated and tied on a thorn injury. Paste of leaves is applied on the head.
	Marod phalli/ Metha ki phali	Helicteres isora	Malvaceae	Fruits Bark Root	Torsion, Stomach pain, Diarrhoea Diabetes Asthma and cough Wound Vomiting	One teaspoon powder of Helicteres isora fruit's powder mixed in buttermilk and taken by mouth twice a day Fruit powder and juice of bark Root bark juice Bark decoction The root paste is mixed with turmeric and applied to the wound. One teaspoon powder of Helicteres isora fruit's powder mixed in honey and taken orally twice a day
	Khoon rokane Ki rukdi	Tridax procumbens	Asteraceae	Leaves	wound healing, Anticoagulant	Cotton is soaked after extracting the leaves of the leaves, after which the soaked cotton is fry in ghee and applied on the wound. Crushing the leaves and applying the juice on direct injury stops the bleeding.
	Harasinghar	Nyctanthes arbirtristis Linn.	Oleaceae	Leaves	Diabetes, Vermifuge	One teaspoonful of leaves powder is given orally with water early in the morning every day
	Nagad bavri	Ocimum canum Sims.	Lamiaceae	Seeds	dissipate body heat Mosquito repellent	Seed laddooes are made to dissipate body heat. It is boiled in milk and mixed with sugar and eaten. The seeds are soaked overnight in water and taken in the morning. Hole plant/paste of leaves
	Ban tulsi	Ocimum basilicum Linn.	Lamiaceae	Seeds	Urinary problem	Seeds given orally with curd
	Tulsi	Ocimum sanctum Linn.	Lamiaceae	Leaves & flower Leaves	Cough & cold Mouth sores	decoction of 4 flowe,2 leaves, jaggery and turmeric is given orally before going to bed. The leaves are chewed three times a day.

	Cheela	Butea monosperma	Fabaceae	Seeds Leaves Stem bark	Ringworm Joint pain Impotency & infertility Reduce body heat, cure back pain. Ulcer & stomatitis Reduce body heat	The powder of the seeds is mixed with lemon juice and applied on the ringworm. apply ghee on the leaves and heat and tie them tight on the joints. Crush the bark of the stem and take the juice with cow's milk. The glue is called Kamarcus glue. Its powder is made and a spoon is taken in the morning with warm milk. Make a decoction of stem bark and gargle it. Combine the juice of the roots with wheat flour and roast in ghee and make laddoos. The animals are fed by boiling the roots in equal quantity with the banana roots in boiling water, filtering them.
	Dikhana gokharu	Pedaliu murex L.	Pedaliaceae	Leaves whole plant	Leucorrhoea Cure dysentery	The leaves are soaked overnight in water and given with sugar candy and cardamom. The entire plant is immersed in water 8-10 times. After that water is given orally.
	Gokhru	Tribulis terrestris	Zygophyllaceae	Seeds Stem and leaves Seeds Seeds	To increase genital capacity Sexual satisfaction, Urinary stone reduce body heat. For good health after delivery.	Roasted seeds powder with root powder of asparagus in ghee and make laddoos. The entire plant juice is taken out and orally given to the hungry stomach for 1 week. Fry seeds powder in ghee and make laddoos Mix the powder of the seeds with turmeric celery,kamarcus gum, roast it in ghee and make laddoos.
	Chirol	Holoptelea integrifolia	Ulmaceae	Leaves	Ringworm	A paste of garlic with leaves is applied around the ring worm.
	Gugal dho	Commiphora wightii	Burseraceae	Stem bark Latex	Animal abdomen pain Main problem	Stem bark boil in water and feed the animals, which removes the poison. Latex paste - applied to pimples
	Bhata kateree	Solanum xanthocarpum	Solanaceae	Fruit Whole plant	Cure Cough, vomiting, miscarriage Urinary problem Cure Kakodai	One teaspoon fruit powder / decoction of leaves taken with four to six dry grapes for 1 week. By making whole plant decoction. Binds the fruits of bhata kateri.

Nak chjkni	Dregea volubilis	Asclepiad aceae	Fruits Fruits & leaves	Arthritis, joint pain, Swollen Nasal disorders	Cut the beans and boil them in sesame oil and apply on the joints. powder of leaves and fruits are inhaled.
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Result and discussion

Use of 35 different species of plants as ethnomedicines by the tribal and local traditional community of Sapotra, Karanpur, Mandrayal and Karauli tehsil of Karauli district, 81 diseases like stomach ache, body aches, cold, tooth pain, diarrhoea, fever, cough, Infertility, wounds, scorpions or snake bites, jaundice, boils pimples, bones join in the following way.

Whole plant as food ingredients mixed with any other food ingredients

1. Preparing decoction of different parts of the plant
2. Making root pudding / pudding of leaves
3. Using plant leaves as a paste oil
4. Mashing the leaves of the plant or extracting the juice
5. Boil the root and leaves of the plant with water
6. Use of raw fruits and legumes of the plant
7. Plant ashes
8. Plant bark
9. Seed use

The present study shows the importance of the plant as Ethno medicine of Karauli district, which was previously discussed by other authors on flora even when Karauli district was a part of Sawai Madhopur district.

Conclusion

This study shows that the tribal and other local traditional communities of Karauli district use forest products all around them for their livelihood, not only for food, wood, fodder, shade, fuel, lap, resin, but also various different parts of plants are used to cure ailment/diseases, hence proper and scientific use of flora of these rocky, rugged and far-flung/ remote areas of Karauli district. Can be done for the welfare of mankind by small scale industries. Under ethnography, medicinal plants have been used by tribal in human welfare and animal welfare.

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