

# Applied Medical Geography of Diseases and Medicinal Plants : Type-wise Plant Species, Disease Correlation and Traditional Herbal Prescription for the Cure of Some Important Diseases in the Shekhawati Region, Rajasthan

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**Abstract:** This paper documents a field-based applied medical geography study of the Shekhawati region (northern Rajasthan), mapping relationships between disease categories and locally used medicinal plants, and presents species-wise prescriptions (traditional preparations) and suggested treatment periods for several important ailments. Combining ethnobotanical interviews with pansaris (traditional herbalists) viz. Leela Dhar Bhatt Pansari, Khetri, Jhunjhunu, household surveys, herbarium identifications, and secondary pharmacopeial checks, the study compiles (1) a typology of medicinal plant species by therapeutic role, (2) species-wise disease associations, and (3) commonly used preparation methods and typical treatment durations reported by local practitioners. The findings highlight the continued importance of traditional knowledge for primary healthcare in semi-arid regions, suggest priority species for conservation and pharmacological study, and recommend integration pathways with formal public health services. Limitations include reliance on self-reported efficacy and absence of controlled clinical testing; recommendations are made for pharmacological validation and conservation action.

**Keywords:** Shekhawati, ethnobotany, medicinal plants, applied medical geography, traditional medicine, Rajasthan, pansari.

## 1.1. Introduction and Importance

Shekhawati (Jhunjhunu, Sikar, Churu districts and adjoining areas) is a semi-arid cultural and ecological landscape with longstanding traditions of herbal medicine. Limited access to formal healthcare in many rural pockets has historically fostered rich local knowledge of medicinal plants (pansari tradition) viz. Leela Dhar Bhatt Pansari, Khetri, Jhunjhunu. Applied medical geography explores spatial patterns of disease incidence together with availability and use of local remedies. This study documents which plant species are used for which disease types in Shekhawati, and records traditional prescriptions (forms, preparations) and customary treatment periods as reported by local healers and users.

Actually, every plant or its community is useful on the earth surface, in other words to say whatever and wherever the plant on this planet has its applied value, it is another matter whether that we are not aware or known by its uses or the mankind yet has unable to find out or trace out its unseen factor of usefulness. Plants are the precious natural heritage of the earth, a valuable gift of the God on the earth surface in the form of green coverage. At the part of applied aspect of the plants, it covers several in other words to say uncountable multi-dimensional importance, broadly example from environmental, ornamental, folklore in society culture, religious appraisal, biological sense, its food and fodder values, its medicinal purpose etc. The uses of plants for different purposes are earlier or perhaps as old as mankind existence. In India, since the 'Vedic Period', information on the utility of plants in medicine finds place in different ancient scriptures. About a few thousand years ago the utility of plants

as medicinal aspect has been dealt in a holy Hindu Grantha - "Ram Charitmanas" at that time quoted in phrase-

"Raghupati Charan Saroj Sarup, Nayuv Aau Sukhan; Kaha, Nam Giri Aushadhi, Jahu Pawan Sut Lane"

In this phrase the importance of 'Sanjeevani Buti' plant was given with an emphasis as an 'Ausadhi or Medicine' by Sukhen Vedh i.e. at the event of 'Lakshman Murchha' during the war with Meghnath.

From an ancient booklet in Hindi entitled "Pustak Sandesh" about two centuries ago, large number of common plants have been enumerated for traditional uses in which *Ficus religiosa* was considered as a climate purifier as it liberates considerable amount of oxygen than many other species. It is also mentioned that Lotus fruits are used as a good tonic etc. The study of plants in service of mankind remained as a part of human civilisation. Information on the economic aspect of plants have been passed from one generation to the next generation without any published records, in other words to say in some or certain cases these informations are on going heritage from one generation to another. It is in this light, a new branch of Botany has emerged, termed as Ethnobotany and the scientists of world are keen to examine the practical uses of all medicinal plants reported or unreported. (Nayar M.P., et al., 1989).

Ethnobotany in other words to say a synonym of an interdisciplinary branch of geography here termed as - Applied medical phytogeography. There are large number of examples from Archaeological remains, among them a few can be mentioned. "Kalpa-Vraksha" in stone sculptures denotes. *Adansonia digitata* basically a semi arid zone species. They grow in semidry areas where there is scanty vegetation. This

plant (*Adansonia digitata*) has augmented the vegetable component besides ensured additional income to villagers derived from It's fruit whose water is tonic and nutritive. The stem fibre is used as cordage. Branches and leaves are considered as a good cattle feed as fodder and flowers are used in medicine. It has been estimated that each tree can fetch about rupees 2000 per year (price index of 1985) and It's span of life is more than few hundred years. Hence, it is called 'Kalp Vraksha' in ancient literature.

Useful information on plants used in medicine has been recorded rather indirectly by Chemists, Archeologists, Historians, Anthropologists, Sociologists, Folklorists, Travellers, Foresters and Doctors. However, the importance of plants as an antidote to alleviate from pains and sickness was realised by early men alone during the course of their struggle for existence. This experience and experimentation with plants accrued into a body of knowledge which tested by time grew into an integral part of their culture and passed down orally from one generation to another as no mode for recording events existed in the pre-historic times.

A popular rhyme in hindi telling about the importance of the three myrobalans *Emblica* (*Phyllanthus emblica*), *Belleric* (*Terminalia bellerica*), *Chebolic* (*T.chebuta*) and *Majuphal* (*Quercus infectoria*) for the care of teeth as narrated by the Herbal Vendors runs as follows-

“Har, Bahera, Amla; Teeno Namak Patang;

Braj Dant Kar Det Hai; Majuphal Ke Sang.”

In English it means that one who regularly uses *emblica*, *belleric*, *chebolic* and *quercus* can have their teeth strong like stone.

By thus, one can visualize very well that, since plants influenced the intellectual and the material culture of men, their references have appeared in ballads, tales, songs, legends, myths, rhymes, riddles and proverbs of ancient times.

Ethnobotanical surveys across Rajasthan and neighbouring areas show heavy reliance on species such as *Azadirachta indica* (neem), *Withania somnifera* (ashwagandha), *Tinospora cordifolia* (giloy), *Phyllanthus emblica* (amla), *Curcuma longa* (turmeric), *Aloe vera*, and *Terminalia* spp. for common ailments (fever, infections, digestive disorders, diabetes, wound healing). Studies emphasize the need to document local preparations, dosage traditions, and conservation status because overharvesting threatens several wild taxa. This work builds on regional ethnobotanical methods and specifically captures Shekhawati pansari knowledge and disease-plant mappings

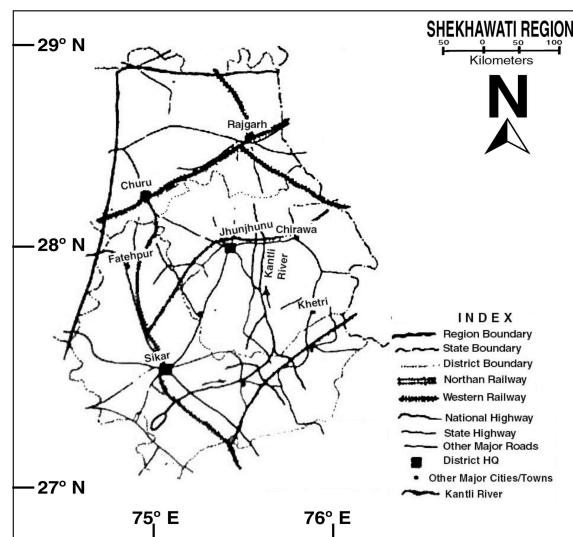
The information on 'Drug and their Properties' has been taken as well as traced out from very authentic publications, and only those uses of medicinal herbs are described which have been recognised in the British Pharmaceutical Codex and / or United States Dispensary, or whose properties have shown their recognition experimentally on animals or in clinical tests. For this, the author involved the opportunity of screening some important relevant literature of the last 30 years or so. During this literature hunt, one thing that struck him most is that pharmacological experiments or clinical tests have been carried out on a very small number of medicinal herbs. Intensification

of such work should be the first requirement, if we have to exploit and boost up our medicinal plant resources or the wealth.

## 1.2. Study Area

Figure-1.1 shows the area under study i.e. Shekhawati region which is located in the north-eastern part of Rajasthan state and the region has geographical extension from 26°26' to 29°20' N latitude and 74° 44' to 76°34' E longitude on the map of Rajasthan.

**Figure- 1.1 Location Map of Shekhawati Region**



The area under study covers fully or partly three districts, namely Churu, Jhunjhunu and Sikar. Churu district's out of 7, only 3 tehsils fall under Shekhawati region (Churu, Rajgarh and Taranagar) whereas Jhunjhunu district as a whole with its six tehsils (Buhana, Chirawa, Khetri, Jhunjhunu, Nawalgarh and Udaipurwati) in which Buhana tehsil emerged out as a new tehsil on the map of Jhunjhunu district (2001), it was no more existence in the year of 1991 and Sikar district also covered fully with it's six tehsils (Data Ramgarh, Fatehpur, Laxmangarh, Neem ka Thana, Sikar and Shri Madhopur). The region has 23 Panchayat Samitis in all. Thus, the region under study has 15 tehsils in total with it's total 15343 sq. km. geographical area which makes 5.6% of the state's total. At the part of district-wise contribution by area point of view in Shekhawati region it is observed that part and portion of Churu district contributes 29%, Jhunjhunu district contributes 31% and Sikar by 40%, respectively.

Among these tehsils area point of view, the tehsil of Churu is largest one and Buhana smallest, respectively. District-wise area point of view Sikar stands at first position which is followed by Jhunjhunu and lowest contribution is made by Churu i.e. 1683 sq. km. only.

At the part of population, Shekhawati region contributes 8.7 percent of the state's total in which sex-ratio is 948 females per thousand males in Total Population whereas it is very low i.e. 887 in Child Population for the area under study. The region obtains high Literacy rate which is about 10% more than that of the state's average. Among tehsils, Buhana ranks at first position while as Neem ka Thana contributes lowest in this aspect. The region obtains high density (244). The region has

also Slum population but it is very low or to say negligible i.e. 2.5% only of the urban area's total.

The whole region has distribution of two types of soils; Sandy soil and Red Loamy soil. The former soil type has obvious distribution in Churu district, the areas of sand dunes topography; the later soil group is mostly distributed over the districts of Jhunjhunu and Sikar (classification based on dominancy, availability and agricultural productivity). The distribution of soil type and its physical as well as chemical nature is a significant aspect from vegetation as well as plant species distribution point of view.

On the basis of another type of soil type classification according Prof. Thorpe and Smith based on the origin of the soil, the observations revealed in this direction that Remosols type of soil has distribution in the areas of sand dunes topography; all three tehsils of Churu districts have, Red sandy soil which is more alkaline in nature. Hilly topography soil and Riverine soil have their distribution according the distribution of habitat of study area.

Here, the author is illustrating the geographical perspective of the area under study in brief with its significant components from the specific interest of the subject of study point of view. Any way, overall the present chapter's matter is divided into three parts from descriptive account point of view-viz; physiographical characteristics, land use pattern, and demographic aspect.

### 1.3 Objectives

1. To compile a typology of medicinal plants used in Shekhawati by therapeutic category (antimicrobial, antipyretic, anti-inflammatory, antidiabetic, wound healing, respiratory, gastro-intestinal, etc.).
2. To map species-wise associations with diseases as reported by local practitioners and households.
3. To document traditional preparations (formulations) and customary treatment periods for selected important diseases.
4. To highlight priority species for conservation and further pharmacological study.

### 1.4 Hypotheses

1. The majority of primary care ailments in Shekhawati (respiratory infections, gastrointestinal problems, skin wounds, febrile illnesses) are treated primarily with a small subset of widespread medicinal species.
2. Traditional preparations and treatment periods show consistency across villages, indicating stable pharmacopeial traditions in the region.

### 1.5 Methodology

#### I. Study area

Shekhawati region in northeastern Rajasthan—semi-arid, with thorn scrub, dry deciduous pockets, and agro-pastoral land use. Fieldwork focused on selected villages across Jhunjhunu, Sikar and parts of Churu districts where pansari shops and traditional practitioners are active.

#### II. Data collection

1. Field surveys (2024–2025): purposive sampling of 25 pansari shops and 30 households across 10 villages.

2. Semi-structured interviews: with pansaris, traditional healers, and elderly informants to record plant names (local and botanical where possible), diseases treated, preparation methods, and treatment durations.

3. Specimen collection and identification: voucher specimens collected and identified with reference to regional floras; specimens deposited in the college herbarium.

4. Secondary sources: cross-checked local claims with standard pharmacopeial references where available (to verify known therapeutic properties).

### III. Data analysis

Data were coded into an ethnobotanical database: species, family, vernacular names, disease(s) treated, preparation (decoction, paste, powder, oil, juice), route (oral/topical), and typical treatment period as reported. Frequencies and relative importance indices were computed to identify heavily relied upon species.

### 1.6 Observation

#### I. Disease Type-Wise Distribution of Medicinal Plant Species

Although there are several kind of diseases as well as group of diseases which are found among human beings. The traditional system of medicine in India i.e. Ayurvedic system which has a solid back ground in the cure of different kind of diseases by using the applied values of medicinal plant species in this aspect. The author has attempt here an exercise for the disease type-wise distribution of medicinal plant species. By giving priority to the type of disease, in other words to say that a particular type of disease covers or includes how many medicinal plants species whose applied values have phyto-chemical properties to cure that particular type of disease. In this way any medicinal plants due to its nature of phyto-chemical applied values may be used in single or several type of diseases. The author on the basis of phyto-chemical properties of 101 medicinal plant species analysed that, "there are 70 disease types in which medicinal plant species have their contribution.

The analysis of 'disease type-wise' contribution with reference to their different medicinal plant species. Further in this context, the study revealed that at the name of 'Tonic' maximum medicinal plant species i.e. 22 are being used from a long period by the native people as prescribed by the Vedhs of concerning locality. At second place one medicinal plant species fall under the head line of 'used in medicines', which naturally have applied values to cure different kind of diseases. Similarly at the third place under the head line of 'native medicines' includes 12 medicinal plant species which have their applied values not specific but become a part for preparation of drugs to cure certain type of diseases.

It is very interesting to mentioned here that the author's study revealed that there are 29 specific diseases which include only one or single medicinal plant species e.g. Abortifaciant, Anthelmintic, Astringent, Abdominal disorders, Antiarthritic, Adaptogenic, Blacking grey hairs, Dysentery, Dyeing, Demulcents, Expectorant, Earache etc., etc.



At the part of cure of male sterility disease three medicinal plants of Shekhawati region are available where as at the part of cure of female sterility disease four plants are available, respectively. Diabetes disease cure, four medicinal plant species are available in Shekhawati region in Rajasthan.

In this way 101 medicinal plant species have their vital role in the cure of 70 certain kind of diseases, hence disease type-wise contribution of medicinal plant species for the area under study i.e. Shekhawati region, Rajasthan.

It is quite obvious that group-A (more than 5 types of diseases) contributes lowest percentage i.e. 5.8 from contribution of total number of diseases in Shekhawati region i.e. 70 in all. Whereas group-C (2 types of diseases) first place by contributing maximum 27.7% group-wise contribution in total number of diseases for area under study.

Group-B stands at second place (26.7%) whereas group-D which include only one type of disease stands at third place at the part of group-wise contribution in total number of diseases which are naturally based on number of medicinal plant species which have their phytogeographic availability from spatial pattern of distribution in different places of Shekhawati region, Rajasthan.

## II. Medicinal Plant Species-Wise Distribution of Diseases

In the particular head line, the author made his best efforts to classify the medicinal plant species of Shekhawati region according their medicinal uses as drugs to cure the different kind of diseases. In this aspect the author has given priority to individual medicinal plant species rather than It's medicinal uses in different kind of diseases. By doing so a medicinal plant species may have one or single medicinal use for the cure of a single or specific particular disease to several kind of diseases. In this way medicinal plants become a basis for medicinal use in one disease type or more than one disease type. The author in this way illustrated an analytic aspect of 101 medicinal plant species of Shekhawati region which have their medicinal uses in one or more than one as drug to cure single or more than that disease types. The analysis of 'medicinal plant species-wise' contribution with reference to their in different disease types. Further in this context one can see many medicinal plant species have single or one medicinal use to cure a single or one disease type are total 47 in numbers e.g.

*Albizia lebbeck*, *Bambusa bambos*, *Citrullus colocynthis*, *Capparis decidua*, *Digera muricata*, *Dectyloctenium aegyptium*, *Glinus lotoides*, *Lycium barbatum*, *Polygala chinensis*, *Rivea ornata*, *Solanum albicaule*, *Acacia nilotica*, *Calligonum polygonoides* *Opuntia elator* etc., etc.

At the part of total number of coverage as drugs to cure different kind of diseases *Withania somnifera* is that medicinal plant species of Shekhawati region which alone covers 12 different disease types or in other words to say the particular single medicinal plant species covers 12 diseases from medicinal applied aspect point of view, thus it ranks at first place among 101 medicinal plants at Shekhawati region, Rajasthan.

*Aloe vera* and *Tribulus terrestris*, both medicinal plant species covered separately by their medicinal uses to cure 7 different disease types, in this way these are two medicinal plant species ranks at second place for the area under study. At third place, the author traced out that *Asparagus recemosus* and *Azadirachta indica* are considered by covering their medicinal uses by each medicinal plant species for the cure of 6 different disease types.

To simplify this all above mentioned matter, the author made four groups on the basis of coverage of number of diseases (group-A to group-D). By thus, the number of medicinal plant species-wise (in groups) contribution in percentage (on the basis of number of medicinal plant species in a particular group for the cure of number of diseases). Group-A (which covers more than 10 types of medicinal plants) ranks at forth place by contributing only 7.1% among total 70 types of number of diseases whereas group-D (which covers below 70 types of medicinal plants) ranks at First place by contributing 58.5%, respectively. At the part of group-wise contribution, one can see very well that group-C stands at second place by contributing 23.0% whereas group-B at third place i.e. 11.4%, respectively.

## III. The Period and Prescription for the Cure of Some Important Diseases by the Herbal Drugs

Prescriptions for the cure of some common ailments which the Herbal Vendors give are obtained from them after much persuasion and request. Most of them refused to divulge the professional secret of cure except for verbally mentioning the names of some of the medicinal herbs used. The exact proportion in the combination of the crude herbal drugs used could not be ascertained from them. They confessed that they take a pledge among themselves not to disclose the secrets of their profession to anyone. The following are some of the prescriptions obtained and acquired knowledge from them and from the literature available in this aspect -

### 1. For the use as General Tonic

#### I. Prescription

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

*Aswagandha*, *Harar*, *Baheda*, *Amla*, *Satawar*, *Kiwanch*, *Safed Musali*, *Vidharikand*, *Banslochan* and *Dry Fruits*. **II. Methodology of Dose Consumption**

They are powdered and then the mixture may be taken two tea-spoon twice a day with a glass of milk.

#### III. Precautions

To avoid eating spicy and hot foods and also the intoxicating substances. Also desist from sexual contact.

### 2. For the Cure of Rheumatism

#### I. Prescription

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar , Kamarkas gond , Gundi , Aswagandha , Sahajana gond , Chobchini , Gokhru , Kiwanch , Shyam Musli , Safed Musli and Kala Beejbandh.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture may be taken two tea-spoon twice a day regularly with milk and honey.

## **III. Precautions**

Strictly avoid the consumption of acidic and cold foods

## **3. For the Cure of Skin Diseases**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Gawarpatha, Neem fruit , Makoi , Kali Ziri , Chiraita , Kutki , Majistha , Rose petals , Sanai and Triphala.

## **II. Methodology of Dose Consumption**

A decoction of the crude drugs is prepared in water and may be taken two tea-spoon twice daily.

## **III. Precautions**

To avoid eating spicy and hot foods and also the intoxicating food or drinking materials.

## **4. For the Cure of Swellings**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar, Aswangandha , Kamarkas gond , Sahajana gond , Chobchini and Sonth.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture is prepared which may be taken two tea-spoon twice a day regularly with milk.

## **III. Precautions**

Strictly avoid the acidic and cold foods contents.

## **5. For the Cure of Dysentery**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Belpatra , Dabh , Maror phali , Saunf , Isabgol , Nagkesar and Lodh pathani.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture may be taken two tea-spoon with cold water thrice a day regularly.

## **III. Precautions**

Strictly avoid the hot tea as well as milk, and hot spicy foods.

## **6. For the Cure of Blood Purification**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Asgandh , Brahmi buti , Harar , Bahera , Amla , Kutki , Chiraita , Rose petals , Sanai , Lal Chandan , Manjistha , Dhaniya and Safed zira.

## **II. Methodology of Dose Consumption**

A decoction of the drug is made by boiling the crude drugs in water for several hours together till only one-fourth portion rest is left. The decoction is taken two tea-spoon twice daily.

## **III. Precautions**

Strictly avoid Oil, Salt and eating hot, acidic spicy foods (e.g. Samosa, Kachori etc.).

## **7. For the Cure of Softening Hairs**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Jufa, Brahmi Buti, Amla, Sikakai, Ritha, Jata manshi, Mehndi, Gudahl, Bharangraj and Triphala.

## **II. Methodology of Dose Consumption**

A decoction of the crude drug is prepared in water by boiling and washing hairs.

## **III. Precautions**

To avoid the use of bad Soaps and Shampoos for washing hairs of medicinal plant's parts and portion.

## **8. For the Cure of Loss of Strength and Vigour**

### **I. Prescription -**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Asgandha, Gokhru , Kala Beejbandh , Satawar , Kamarkas gond , Giloy , Harar , Bahera , Amla , Safed Musli , Salb misri , Shyam musli , Semal musli , Vedarikand , Mulethee, konchh Beej, Kamalgatta, Vidara, Salab Panja, Salajeet, Kesar, Taalmakhana, Ootangan, Lajwanti and Pista.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture is made in to paste by cooking in pure ghee, milk and Jaggery and these are mixed with Shilajit to prepare the final product. They are to be taken two tea-spoon twice daily with a glass of milk for atleast one month duration.

## **III. Precautions**

Pungent and sour substances (like Chhach, Chatni etc.) are to be avoided during the course of treatment.

## **9. For the Cure of Urinary Disorders**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Asgandh , Kala beej bandh , Ashok bark , Jinjari , Gokhru , Salb misri , Nagkesar , Satawar , Salparni , Rose petals , Shyam musli , Braham dandi, Pumpkin Seed and Punarnava .

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture of herbal drugs is prepared, and it may be taken with cold water empty stomach and two times a day. For quick action and relief they recommended it to be taken with glass of fresh carrot Juice.

### **III. Precautions**

To avoid foods which has bad effect on body (heavy diets specially).

## **10. For the Cure of Sexual Complaints**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar , Palas gond , Banslochan , Jinjari , Gokhru , Giloy , Asgandh , Kiwanch , Safed musli , Shyam musli , Semal musli , Todri , Lajwanti , Uttangan , Kala Beej bandh , Salb panja , Kamal gatta , Chhoti ilayachi and Salab misri.

### **II. Methodology of Dose Consumption**

They are powdered mixed and cooked in pure ghee in earthen utensil adding cow milk and Jaggery. The product is taken with Shilajit two tea-spoon daily in the early morning empty stomach.

### **III. Precautions**

To avoid sexual relations during the course of treatment and also to avoid any intoxicating materials (e.g. wine, opium etc.)

## **11. For the Cure of Leucorrhoea**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Bophali , Bar Jata , Pipal Jata , Kala Beej bandh , Asgandh , Lodh pathani , Semal musli , Kutki , Nagkesar , Kaiphal , Safed musli , Salb panja , Gundi , Singhara and Ashok bark.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the herbal drugs may be taken two tea-spoon twice daily with milk.

### **III. Precautions**

To avoid eating sour and pungent foods (specially the Chhach, Chatni etc.).

## **12. For the Cure of Male Sterility**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar , Kala Beej band , Asgandh , Kiwanch , Vidari kand , Todri , Kaiphal , Uttangan , Safed musli , Shyam musli and Salb panja.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the drugs is prepared and roasted in earthen utensil and taken one tea-spoon twice daily with a glass of milk and honey in the morning empty stomach.

### **III. Precautions**

To avoid eating pungent, sour and intoxicating materials.

## **13. For the Cure of Female Sterility**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar , Kamarkas gond , Kala beej bandh , Asgandh , Lodh pathani , Manjuphal , Vidhari kand , Mocharas , Kiwanch , Todri , Kaiphal , Uttangan , Safed musli , Shyam musli and Salb panja.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture is prepared from the herbs which is boiled with milk and sugar till thick substance is left and is taken one tea-spoon daily empty stomach between the menses for atleast 6 months.

### **III. Precautions**

To avoid eating pungent, sour and intoxicating materials.

## **14. For the Cure of Haematuria - (passing of blood with Urine)**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Chhota Gokhru , Bada Gokhru , Jal jamni , Asgandh , Nagkesar , Lal Chandan and Sital chini.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture of drugs is prepared and then it may be taken with water.

### **III. Precautions**

To avoid eating hot, spicy foods, Tabacoo, Alcohol and in taking of intoxicating materials. Also desist from sexual contact.

## **15. For the Cure of Asthma**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Arusa , Kaiphal , Kutki , Mulethee , Ratanjot buti , Zufa , Pipal , Kalimirch , Sonth , Khubkalan , Kakrasinghi , Aswagandh , Nagkesar , Anjawan , Lisoda , Ganjawan , Banfisa , Baherda and Tulsi.

### **II. Methodology of Dose Consumption**

A decoction of the drugs is made by boiling the crude drugs in water for several hours together is left. The decoction is taken two tea-spoon twice daily.

### **III. Precautions**

To avoid eating hot, spicy, oily foods, Tobacco, Alcohol and in taking of intoxicating materials.

## **16. For the Cure of Gonorrhoea**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Akari Bel , Bhindi root , Shyam musli , Giloy , Mulethee , Talmakhana , Kutki , Panir , Rose petals , Kala Beej bandh , Gorkh mundi and Braham dandi.

## **II. Methodology of Dose Consumption**

A decoction of the crude drugs is prepared in water and may be taken two tea-spoon twice daily.

## **III. Precautions**

To avoid eating hot, spicy, foods, Tobacco, Alcohol, and taking intoxicating materials. Also desist sexual contact.

## **17. For the Cure of Whooping Cough**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Bharangi , Panihari , Mulethee , Zufa , Pipali , Kali mirch , Sonth , Khubkalan , Banfsha , Kakara singhi , Tulsi , Alsi , Bahera , Oonab , Lisoda , Azawan and Kala namak.

## **II. Methodology of Dose Consumption**

A decoction of the drugs is made by boiling the crude drugs.

## **III. Precautions**

Patients are advised to avoid smoking (Cigarettes, Bididi etc.) cold drinks (Pepsi, Limca etc.) and also taking intoxicating materials.

## **18. For the Cure of Gastro-Intestinal Disorders**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Sanai , Kutki , Harar , Baheda , Amla , Pipal , Sonth , Marorphali , Azwain , Hing , Belptra , Rose petals , Saunf , Safed zira , Pipalamul , Nosadar , Mitha soda , Kala namak and Sandha namak.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the drugs is prepared and may be taken daily with water two tea-spoon twice or thrice a day.

## **III. Precautions**

Patients are advised to avoid spicy foods (e.g. Samosa, Kachori etc.) and acidic materials (Rice, Potato, Phool gobhi etc.). To advise Drink water after one hour of meal.

## **19. For the Cure of Purgative/ Constipation**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Amaltas , Gawarpatha , Ker , Sanai , Kala danha , Kutki , Kiwanch , Choti harar , Bari harar , Amla , Baheda , Pipal , Sonth , Tumba , Azwain , Ajmod , Mitha soda , Kala namak and Sandha namak.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the crude drugs is prepared and may be taken daily with warm water two tea-spoon twice a day, at least one month regularly.

## **III. Precautions**

Patients are strictly advised to avoid spicy foods (e.g. Samosa, Kachori etc.).

## **20. For the Cure of Eradication of Intestinal Worms**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Palas seed , Amaltas , Baibirang , Indrajaw , Kamela , Karanj , Harar , Baheda , Amla and Haldi.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture is prepared and may be taken one tea-spoon twice daily with warm water or Honey after meal.

## **III. Precautions**

Patients are strongly advised to avoid polluted foods and water (e.g. Pani Patasi, Golgappa etc.).

## **21. For the Cure of Body Pain**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Satawar , Asgandh , Sahajana gond , Dikamali , Giloy , Kamarkas gond , Chob chini , Lodh pathani , Nagkesar , Ratanjotbuti , Saqaqul misri , Azwain , Sonth , Piplamul and Baibirang.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the crude drugs is prepared and may be taken two tea-spoon twice daily with honey and empty stomach.

## **III. Precautions**

Patients are advised to avoid eating pungent and sour substances(e.g. Pani Patasi, Golgappa etc.).

## **22. For the Cure of Toothache**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Harar , Bahera , Amla , Samunder Zhag , Lowng , Sona geru , Leaves of Neem and coats of Badam of ashes.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture, and used as tooth powder.

## **III. Precautions**

Strictly avoid sweats, bad tooth powder and tooth pastes.

## **23. For the Cure of Jaundis**



## **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Punarnava, Kutki, Gorakh mundi, Kulinjan, Shyam musli, Chiraita and Amla.

## **II. Methodology of Dose Consumption**

They are powdered and then the mixture is kept overnight in water in copper utensil and then taken every morning Just before sunrise empty stomach for atleast one month daily for faster recovery fresh juice of Radhish, Carrot, Sugarcane and Adrak is recommended.

## **III. Precautions**

Strictly avoid eating hot, spicy foods, Tabacoo, Alcohol and smoking.

## **24. For the Cure of Diabetes**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Gurmarbuti, Giloy, Kiwanch, Gokhru, Asgandh, Kutki, Jamun, Mango seed, Bel patra, Azwain, Methi and Neem Fruit.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture of the herbal drugs is prepared and may be taken regularly with half cup Juice of Karela.

### **III. Precautions**

Strictly avoid eating sweets.

## **25. For the Cure of Piles**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Neem fruit, Gawarpatha, Gokhru, Nagakesar, Palas seed, Gorkh mundi, Choti harar, Marorphali, Belpatra, Bakayan fruit, Sonth, Rose petals and Saunf.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture may be taken daily thrice a day with a cup of milk.

### **III. Precautions**

Strictly avoid of eating hot and spicy foods (e.g. Samosa, Namkin etc.).

## **26. For the Cure of Leucoderma**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Asgandh, Amerbel, Nirbisi, Manjistha, Harar, Bahera and Amla.

### **II. Methodology of Dose Consumption**

A decoction of the herbal drugs is given for long term use about a year.

### **III. Precautions**

Strictly avoid of eating hot, spicy foods and Acidic foods (Pani Patasi, Golgappa etc.).

## **27. For the Cure of Leprosy**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Kaliziri, Asgandh, Giloy, Nirbisi, Harar, Bahera, Amla and Sanai.

### **II. Methodology of Dose Consumption**

They are powdered and then the mixture is prepared of the herbal drugs and may be taken one tea-spoon thrice a day with honey.

### **III. Precautions**

Strictly avoid eating hot and Spicy foods (e.g. Samosa, Kachori, Namkin etc.).

## **28. For the Cure of COVID-19 (Mild Stage)**

### **I. Prescription**

The following main parts and portion of medicinal plants are indicated to be used with others -

Equal quantity should be taken for the applied use.

Arusa, Bharangi, Aswagandha, Mulethee, Zufa, Pipali, Kali mirch, Sonth, Khubkalan, Banfsha, Kakara singhi, Tulsi, Alsi, Bahera, Oonab, Lisoda, Azawan, Khas-Khas and Kala namak.

### **II. Methodology of Dose Consumption**

A decoction of the drugs is made by boiling the crude drugs.

### **III. Precautions**

Patients are advised to avoid smoking (Cigarettes, Bididi etc.) cold drinks (Pepsi, Limca etc.) taking intoxicating materials and also maintain distance and use mask

## **1.7 Discussion**

### **I. Patterns observed**

1. A small set of multi-purpose taxa (neem, giloy, turmeric, amla, ashwagandha) dominate local practice as polyvalent remedies—used across skin, febrile, digestive, and tonic categories.

2. Preparations are conservative and emphasize decoctions, paste applications, and powders mixed with honey or ghee—techniques that increase shelf life and palatability.

3. Treatment periods reported are conservative: acute conditions often treated for 5–21 days; chronic conditions and tonics for multiple weeks to months.

### **II. Relevance to health access**

Pansari remedies function as first-line care in many villages for common, non-traumatic ailments. This reduces burden on distant formal facilities but also risks delayed referral for conditions needing clinical care. Integration of pansari knowledge into primary health outreach could be valuable.



### III. Conservation and sustainable use

High use of certain wild taxa (e.g., *Terminalia* spp., *Gymnema* where gathered from wild) suggests need for community conservation and cultivation programs to avoid overharvesting.

#### 1.8 Limitations

1. Efficacy claims are based on practitioner and patient reports, not controlled clinical trials.
2. Exact dosages were variably reported; modern pharmacological standardization is needed.
3. Species lists reflect areas surveyed and may not encompass entire Shekhawati flora.

#### 1.9 Recommendations

1. Pharmacological validation: Prioritize phytochemical and clinical studies on high-use species from this study (e.g., *Tinospora cordifolia*, *Phyllanthus emblica*, *Azadirachta indica*, *Withania somnifera*).
2. Conservation and cultivation: Promote community nurseries and agroforestry models to cultivate priority medicinal taxa.
3. Documentation and protocol development: Create a regional herbal formulary (with safety profiles) in collaboration with Ayurvedic/Pharmacopoeial experts.
4. Primary health integration: Train community health workers to recognize red flags and collaborate with pansaris for safe referral systems.
5. Standardization of dosage forms: Encourage safe, standardized preparations and caution about known adverse effects (e.g., licorice and hypertension when used long term).

#### 1.10 Conclusion

The Shekhawati region maintains a vibrant, locally adapted pharmacopeia that addresses many common ailments through a relatively small group of versatile medicinal plants. Documenting plants, species-wise disease associations, and traditional treatment periods provides a foundation for conservation, pharmacological investigation, and possible integration of safe traditional practices into primary care frameworks. Ethical, scientific follow-up (phytochemistry, toxicity testing, clinical trials) is essential before recommending broad clinical adoption.

#### 1.11 Selected Suggested References

1. Charaka Samhita (classical Ayurvedic text)
2. Sushruta Samhita (classical Ayurvedic text)
3. Indian Pharmacopoeia Commission—Indian Pharmacopoeia (latest edition)
4. Regional floras and herbarium keys for Rajasthan (consult local university/college herbarium)
5. WHO, Traditional Medicine Strategy (for policy context)

#### 1.12 Acknowledgements

I acknowledge the pansaris, traditional healers, and villagers of Shekhawati who shared their knowledge; the herbarium staff and field assistants.

#### 1.13 Ethical Statement and Disclaimer

Data collection followed informed consent procedures; traditional knowledge holders were asked for permission to

record and publish. The remedies and treatment periods reported are traditional practices as collected in fieldwork. This paper does not constitute clinical medical advice. Individuals should consult qualified healthcare professionals before starting any herbal treatment. Some herbs can interact with medicines or cause adverse effects (e.g., licorice can raise blood pressure); scientific validation and professional oversight are recommended.

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