

OVER VIEW OF TRADITIONAL HERBAL REMEDIES FOR PRIMARY HEALTH CARE

U. Abhinaya and G. Uma Rani*

RBVRR women's College of Pharmacy, Hyderabad, Telangana, India.

ABSTRACT

Because of individual cultural and historical influences traditional systems of medicines are being part of health care by people in various countries. Herbal medicines are plant derived materials and preparations with therapeutic or other human health benefits, which contain either raw or processed ingredients from one or more plants, inorganic materials or animal origin. The WHO defines herb as being fresh or dried, fragmented or powdered plant material which can be used in crude state. Herbs can be prepared by squeezing, steaming, roasting, decocting or infusing in water. This review explains the few herbal ingredients and their method of preparation for treating common ailments in day to day life.

Keywords: Herbal drugs, Decoction, Chemical composition, Health care.

INTRODUCTION

Herbal medicine constitutes the main component of traditional medicine, which have been used since thousands of years. They have made significant contribution to human health through their promotive, curative properties and in the prevention of illness. At present the use of herbal medicines are increasing worldwide. They can be prepared easily and used for primary health care. It is also increase availability and accessibility to cost effective treatment of commonly encountered health problems with herbal remedies. In this review mentioned the form of traditional preparation and its composition, latin name, english name, family of the plant, plant part used, chemical constituents, method of preparation, dosage form, standards, therapeutic properties, precautions etc.

Treatment of Common cold

Trikatu powder

Trikatu powder is a simple formulation made by mixing fine powders of three commonly used herbal drugs in equal quantity namely dry ginger (shunthi) black pepper (maricha), and long pepper (pippali). All the three ingredients are predominantly of pungent taste. All the three are spices used commonly in the kitchen and traded widely from india since ancient times.¹

Composition

Name	English name	Latin name	Family	Part used	Chemical constituents
Shunthi	Dry ginger	Zingiber officinale rose	Zingiberaceae	Rhizome	Essential oils, pungent constituents (gingerol and shogaol), resinous matter and starch
Maricha	Black pepper	Piper nigrumlinn.	Piperaceae	Fruit	Alkaloids(piperine, piperidine, piplartin), essential oils
Pippali	Long pepper	Piper longumlinn.	piperaceae	Fruit	Alkaloid (piperine, piplartine,sesamin), essential oil

Method of preparation

Take 50gms of eachof the three ingredients, dry them further to remove the moisture for easy powdering. Take an equal quantity of each drug of trikatu and mixwell in a dry container. Grind the

mixture in a grinder or pulverizer till fine powder is obtained. Sieve the powder through 85 mesh to remove the coarse fibers and other particles.

Keep trikatu powder in an air-tight dry container of glass or food grade plastic; store in a dry cool place away from direct sunlight. It is good to use powder within one year.¹

Dosage form

Blackish brown fine powder.¹

Therapeutic properties

anti-inflammatory, analgesic, expectorant, digestive, carminative.

Dose and mode of administration

Adult dose of trikatu is 2gms given 3 times a day preferably with warm water or milk or honey. In children the dose may be reduced according to age can be given in dose of 125mg-500mg thrice a day.¹

For the treatment of cough

Pippali powder: pippali powder is a single ingredient herbal formulation made from the fruits of long pepper, an aromatic climber with perennial woody roots.

composition

Pippali powder is made from dried fruits of piper longum.²

English name	latin name	family	part used	Chemical constituents
Long pepper	Piper longumlinn	piperaceae	Fruits	Essential oil and alkaloids (piperine, sesamine, pipartine)

Method of preparation

Dried long pepperfruits are cleaned and powdered in a grinder or mortar. Powder is sieved through mesh of 85 size and kept in an air tight plastic or glass container. Exposure to moisture should be avoided. It is advisable to prepare atleast 50gms of powder at a time²

Dosage form

Blackish green powder with aromatic odour and pungent taste.

Therapeutic properties

Pippali powder has anti-inflammatory anti-phlegmatic, decongestant, anti-spasmodic, anti-allergic, expectorant anthelmintic, immune stimulatory and tonic properties²

Dose and mode of administration

The adult dose of the formulation is 1-3gms and the children's dose is 125mg-250mg 2 or 3 times a day, mixed with honey or warm water²

For the relief of fever

Kiratitika powder: it consists of dried, matured pieces of whole plant of swertiachirata annual, herbaceous plant³

Composition

The formulation is a powder made from dried, matured pieces of whole plant of swertiachirata.³

English name	Latin name	Family	Part used	Chemical constituents
Chiretta, chirata	Swertiachirata	gentianaceae	Whole plant	Xanthenes, xanthone glycoside and flavonoid

Method of preparation

Take dried whole plant of kiratitika and further dry it in the shade to remove moisture for easy powdering or making coarse powder for decoction. Grind the material in a grinder or pulverizer until the fine powder or coarse powder is obtained. For obtaining then fine powder filter it through mesh size 85 coarse powder is used as such for decoction, there is no need to filter it. The shelf of the powder is 4 months. Stored in an air tight container and protected from direct sunlight and heat.⁽³⁾

Dosage form

Dark brownish bitter powder or , dark brownish bitter liquid.

Therapeutic properties

Anti-pyretic, anti- malarial, anti helmentic, anti- tubercular, anti- inflammatory, anti diabetic, laxative, stomachic, tonic³.

Dose and mode of action

For adult is 1-3gms and children it is 250mg-500mg with water.the dose of decotion for adults is 25-30 ml and for children ,it is 5ml-10ml to be taken twice a day after meals³.

Headache**Pippalimoola powder****Composition**

English name	Latin name	Family	Part used	Chemical constituents
Long pepper	Piper longumlinn.	Piperaceae	fruit	Alkaloids(piperine, piperlongumine, piperlonguminine), essential oils

Method of preparation

Take 40gms of dried roots of pippali. Dry it further for removing moisturefor easy powdering. Roots should not have been collected more than one year ago. Grind the roots in a grinder or pulverizer till the fine powder is obtained. Filter the powder through mesh size 85. Keep the powder in a dry and air tight plastic or glass container.⁴

Dosage form

reddish brown to creamy grey bitter powder.

Therapeutic properties

The roots of pippali have thermogenic, tonic, diuretic, purgative, expectorant, anthelmintic, stomachic, digestive, anti-bacterial, anti-inflammatory, CNS stimulant, analeptic properties.⁴

Dose and mode of administration

Dose of the powder for adults is 2-3gms and for children it is 250-500mg to be taken twice daily, preferably on an empty stomach mixed with 3-5gms of ghee or butter or honey and followed by warm water or milk⁴

Indigestion**Chaturbhadra decotion****Composition**

Chaturbhadra decotion is made from the following four ingredients in equal parts⁵

Name of the drug	English name	Latin name	Family	Part used	Chemical composition
Ativisha	Indian atis	Aconitum heterophyllum	Ranunculaceae	Root	Alkaloids(atisine, dihydroatisine, hetisine,
Guduchi	Tinospora	Tinosporacordifolia	menispermaceae	Stem	Terpenoids, alkaloids
Mustaka	Nut grass	Cyperusrotunduslinn	Cyperaceae	Rhizome	Volatile oil
shunthi	Ginger	Zingiberofficinale	Zingiberaceae	rhizome	Essential oil, pungent constituents(gingerols, shogaols) resinous matter and starch

Method of preparation

First dry and clean all the four ingredients. Make coarse powder of each ingredient. Take the coarse powder of all the four drugs in equal quantity and mix properly. The mixture should be stored in an air tight container for use within one year, after which its potency is reduced. Boil 10gms of the mixture in 160ml of water till one fourth water remains. Filter the liquid .add 1-2gms of fine powder of ginger and cumin seeds in the decotion just before taking, to make it more effective.⁵

Dosage form

Warm light brownish decotion

Dose and administration

The dose for adults is 40ml of freshly prepared warm decoction and 5-10ml for children, to be administered twice a day before meals. It is advisable to sip the decoction instead of swallowing it in one lot.⁵

For acidity and gastritis**Amalaki powder****Composition**

The formulation is a fine powder made of single herbal ingredient amalaka⁹

English name	Latin name	Family	Part used	Chemical constituents
Indian gooseberry	Phyllanthusemblica	Phyllanthaceae	Fruit	Vitamin-c, minerals and amino acids

Method of preparation

Seedless dried fruits of amalaka are cleaned and ground into fine powder using a grinder or pulverizer. Powder is sieved through mesh to remove coarse particles and fibers. The powder should be kept in a dry air tight container to prevent exposure to moisture. Potency of the properly preserved dried fruits lasts for one year⁹.

Dosage form

Fine, sour tasting grayish to blackish powder⁹.

Therapeutic properties

Antacids, anti-ulcer, anti-emetic, anti-inflammatory, antioxidant, immunomodulator, rejuvenator, rich source of vitamin C.

Dose and administration

In adults, the dose is 3-6gms and in children 500mg-1gm, twice a day, to be swallowed on an empty stomach or just before meals with water⁹.

For Constipation**Haritaki powder****Composition**

Haritaki powder is fine powder of dried ripe fruits of terminalia chebula⁷

English name	Latin name	Family	Part used	Chemical constituents
Chebulic myrobalan	Terminalia chebula	combretaceae	Dried fruits without seeds	Anthraquinone, glycoside, chebulinic acid, chebulagic acid

Method of preparation

Take dried fruits of haritaki, remove their seeds and dry them further in the shade avoiding direct sunlight. Fruits should not have been harvested more than six months ago. Make fine powder in a grinder or pulverizer. Sieve the powder through 85 size mesh to remove coarse fibers and other particles. Keep the powder in a dry and air-tight plastic or glass container and consume it within six months or before the next rainy season, whichever is earlier⁷.

Dosage form

brownish fine powder

Therapeutic properties

Haritaki has laxative, carminative, digestive, antispasmodic, anthelmintic, anti-microbial, anti-stress⁽⁷⁾

Dose and mode of action

Adult dose of powder is 3-6gms and for children, the dose of haritaki is 500mg-1gm, to be taken with luke warm water once a day on empty stomach. It is preferably taken early in the morning or minimum three hours after dinner.⁷

Vomiting

Ela powder

Ela powder consists of finely powdered seeds of dried fruits of cardamom¹⁰.

Composition

English name	Latin name	Family	Part used	Chemical constituent
Cardomom	Elettariacardamomum	Zingiberaceae	Seeds	Essential oils(terpineol, myrcene)

Method of preparation

Skin of the fruits before grinding the seeds to make powder. About 10gms of seeds are sufficient for a treatment period of 7-10days. Grind the seeds in a clean grinder or mortar to make a fine powdered filter it through a metallic sieve. Seed powder is then kept in a dry air tight small bottle, away from direct sunlight and heat¹⁰.

Dosage forms

Brownish powder with strongly aromatic odour and characteristic taste. The powder can filled into capsules¹⁰.

Therapeutic properties

Cooling, anti-emetic, stimulant, carminative, digestive, stomachic and appetizing properties anti-inflammatory, anti-spasmodic, anti- microbial and anti-fungal properties⁽¹⁰⁾

Dose and mode of indication

Seed powder of ela is recommended in dose of 250mg to 500mg for adults and 60-120mg for children 2-3 times a day with a little warm water or honey. It is advisable to consume the powder on an empty stomach or half an hour before meals¹⁰.

Wound**Haridra powder****Composition**

Haridra powder is a made of a single herbal ingredient haridra

English name	Latin name	Family	Part used	Chemical constituents
turmeric	curcuma longa linn.	zingiberaceae	rhizome	curcuminoids, curcumin and essential oils

Method of preparation

Powder of turmeric is prepared by grinding dried rhizomes in a grinder or pulverizer and then sieve through mesh size 80. The powder should kept in a clean container and stored in a dry area away from sunlight. decoction of turmeric for washing wounds is made by boiling 10gms of powder in 200ml of water till one fourth liquid remains. paste for application over the wound is prepared by mixing 5-10gms of turmeric powder in an equal amount of clean water.⁸

Dosage form

yellow- coloured powder, decoction and paste.

Therapeutic properties

Haridra has anti-inflammatory, blood purifying, anti-allergic, anti-bacterial, anti-fungal, anti- protozoal and wound healing properties⁸.

Dose and mode of administartion

For oral use the dose of turmeric powder for adults is 2-5gms and for children it is 1-2gms or juice of fresh turmeric in the dose of 10-20 ml for adults and 5-10ml for children. It is administered daily twice with water or honey. Wash the wound twice daily with turmeric decoction .apply the thin paste of turmeric over the wound and keep it for 8-10hrs and then remove by gently washing the affected part with luke warm water⁽⁸⁾

Tooth ache**Lavanga oil****Composition**

Lavanga oil is extracted from the buds of clove¹¹

English name	Latin name	Family	Parts used	Chemical constituents
--------------	------------	--------	------------	-----------------------

Clove	Syzgium aromaticum Linn	Myrtaceae	Flower buds	Eugenol, eugenol acetate and caryophyllene
-------	-------------------------	-----------	-------------	--------------------------------------------

Method of preparation

Clove oil is usually available in grocery and medical shops. It is prepared by water distillation of clove buds containing the desired percentage of eugenol¹¹.

Dosage form

Clove oil has a warm, strong, spicy smell and the oil is colourless to pale yellow with a medium to watery viscosity¹¹.

Therapeutic properties

Clove oil is analgesic, anaesthetic, antiseptic, digestive, refrigerant, carminative, stomachic, anti-spasmodic and rubefacient¹¹.

Dose and mode of action

Cotton swab soaked in clove oil should be kept on the affected tooth without touching the gums. Gargles with 1-2 drops of clove oil in a cup of warm water are useful as a mouth wash for toothache and gum problems¹¹.

Urinary disorder

Gokshurapowder

Composition

The powder and decoction of gokshura are made from dried ripe fruits or the entire plant¹⁵

English name	Latin name	Family	Part used	Chemical constituents
Land caltrops, puncture wine	Tribulus terrestris Linn.	zygophyllaceae	Fruits and whole plant	Potassium nitrate, sterols, sapogenin, diosgenin, chlorogenin

Method of preparation

Depending upon the duration of treatment take 50-100gms of dried fruits or whole plants harvested not more than one year before. The raw material should be dried further by keeping it in sunlight or in a drier. Make fine powder in grinder and filter it through a 85 mesh sieve to remove coarse woody particles and fibers. Keep the powder in an air tight glass container away from moist surroundings. Decoction of gokshura is prepared by boiling 20-30gms of the coarse powder of the raw materials in 160-240ml water till one fourth liquid remains. Decoction has to be prepared daily and consumed fresh same day¹⁵.

Dose

Fine, pale-colored powder and straw coloured decoction¹⁵.

Therapeutic properties

It has cooling, diuretic, anti-urolithiatic, styptic, antimicrobial, muscle relaxant, emollient, anti-inflammatory and cytoprotective properties¹⁵.

Dose and administration

The adult dose is 3-6 gms, twice a day with water before meals. The dose of decoction for adult is 40-50ml and it should be taken luke warm¹⁵.

Sprain

Haridrapowder

Composition

Haridra powder made from rhizomes is used orally as well as for local application⁽¹²⁾

English name	Latin name	Family	Parts used	Chemical constituents
Turmeric	Curcuma longa. Linn	zingiberaceae	rhizome	Curcumin, essential oil with high content of bisabolane derivatives

Method of preparation

Take 50gms of dried rhizomes of haridra and dry them further to remove moisture for easy powdering. Rhizomes should have been harvested not more than one year ago. Grind rhizome in grinder till fine

powder is obtained. Filter the powder through 85mesh sieve to remove coarse fibers and other particles. Keep the powder in a dry and air-tight glass or plastic container away from sunlight¹².

Dosage form

Dusty , yellow-coloured fine powder¹²

Therapeutic properties

Turmeric powder has anti-bacterial, insecticidal, anti-inflammatory and anti-arthritic properties⁽¹²⁾

Dose and mode of administration

For oral use, the dose of turmeric powder for adult is 2-5gms and for children 1-2gms. the dose of fresh turmeric juice is 10-20mls in adults and 5-10 ml in children. normally two doses a day should be taken with water or mixed with honey. a paste made from rhizomes, mixed with lime and salt, is applied to the sprained area and removed when it gets dried¹²

Sexual dysfunction

Kapikacchu powder

Composition

kapikacchu powder consist of powdered seeds of mucunapurines¹⁴

English name	Latin name	Family	Part used	Chemical constituents
Cow hedge	Mucunapurines	Fabaceae	seeds	It is a good source of L-dopa and number of essential oils

Method of preparation

Clean the dried seeds of kapikacchu by removing dust and other foreign materials and grind them into a fine powder. filter the powder through 85 mesh sieve and store in an air tight or plastic food container, away from direct sunlight and in a cool place. the potency of kapikacchu powder is best retained upto 4 months after preparation¹⁴

Dosage form

Light-brownish powder¹⁴

Therapeutic properties

kapikacchu powder has aphrodisiac, nervine tonic, anti-parkinsonism, anti-inflammatory, and hypo cholesterolaemic properties¹⁴

Dose and mode of administration

seed powder in the dose of 3-5gms once a day with warm milk at night¹⁴

Painful menstruation

Shatpushpa powder

Composition

The formulation consists of powdered dry fruits of shatpushpa¹⁶

English name	Latin name	Family	Part used	Chemical constituents
Dill	Anethumsowaroxb.ex	apiaceae	Dried ripe fruits	Essential oils, aromatic glycosides, monoterpenoid, ketodiols

Method of preparation

Clean shatpushpa dried fruits by removing dust and other foreign particles .grind fruits in a dry grinder or pulverizer. Filter the powder through sieve with mesh size 85. Store the powder in an air tight, glass or food grade plastic container and store in a dry and cool place away from direct sun light
Soft decoction or infusion is prepared by boiling 2-3gms of shatpushpa in 150ml of water until half of it remains. or soak shatpushpa fruits in 25-30 ml of hot water for half an hour and then filter the contents to obtain infusion¹⁶

Dosage form

Brownish powder and decoction is light brown liquid¹⁶.

Therapeutic properties

The preparation has anti-spasmodic, stomachic, carminative, anti-flatulent, and emmenagogue properties¹⁶.

Dose and mode of administration

2-3gms of the powder is to be taken twice a day with warm water, preferably after meals. the powder can be mixed with an equal amount of honey and swallowed with warm water or milk or, 25-30ml of decoction or infusion can be taken twice or thrice daily . for continuous pain and heaviness use of 2-3 tea spoonful infusion is recommended at hourly intervals¹⁶ .

Leucorrhoea**Lodhrapowder****Composition**

The formulation consist of finely powdered stem bark of symplocos tree¹³ .

English name	Latin name	Family	Part used	Chemical constituents
Symplocos bark	Symplocos racemosaroxb.	symplocacea	Dried stem bark	Alkaloids (loturine, loturidine, coloturine and red colouring matter)

Method of preparation

Properly dried stem bark of lodhra is cleaned first to remove foreign matters and then powdered and sieved through 85 mesh. exposure to moisture should be avoided during preparation of the powder and it should be kept in air-tight container in a dry place. Properly kept powder retains its potency for one year.

For preparing a decoction for vaginal wash, the stem bark of lodhra is cleaned and coarsely powdered. The decoction is prepared by boiling 20-30gms of coarse powder of lodhra bark in 300-500ml of water till 100-125 remains. The decoction is filtered and the liquid thus obtained is used warm for vaginal douche. Fresh decoction should be prepared for the wash every day¹³ .

Dosage form

Grayish brown powder for oral use and decoction for vaginal wash¹³ .

Therapeutic properties

lodhra bark has astringent , styptic, anti-inflammatory, and anti microbial properties¹³ .

Dose and mode of administration

Lodhra powder is given orally in the dose of 3-5gms twice a day with rice water or warm water or honey. Vaginal wash with decoction of lodhra should be done daily for 2-3 weeks till local symptoms are adequately controlled. there after only oral medication should be continued⁽¹³⁾

Joint pain**Ajamodapaper****Composition**

English name	latin name	family	part used	chemical constituent
Slender celery, wild celery	Apium leptophyllum	Apiaceae/umbelliferae	Fruit	Essential oil and fixed oil

Method of preparation

clean the dried fruits of ajamoda by removing the stalks, dust and other foreign matters. grind in a pulverizer or in a mortar and pestle to make a fine powder. filter through a fine sieve of mesh size 85. store in an air-tight container and consume within one year¹⁸ .

Dosage form

Aromatic, slightly bitter yellowish-brown powder giving a sensation of warmth to the tongue¹⁸ .

Therapeutic properties

seeds have antiseptic, diuretic, anti-inflammatory , analgesic, anthelmintic, and anti-spasmodic properties¹⁸ .

Dose and administration

The dose of the formulation for adults is 1-3gms and for children 125-500mg , wo or three times a day, with warm water. For local application as poultice, make a paste of the powdered seeds in warm water and apply on the affected joint¹⁸ .

Jaundice**Katukapowder****Composition**

Katuka powder is made from dried rhizomes and roots of the plant for oral use²⁰

English name	Latin name	Family	Part used	Chemical constituents
Picrorhiza, hellebore	Picrorhizakaruroaroyale ex benth.	scrophulariaceae	Rhizome with roots	Glycosides: picrorhizin and kutkins

Method of preparation

Take 50gms of dried rhizomes of katuka. dry them further to remove moisture for easy powdering. rhizomes should not have been harvested more than one year ago. grind rhizomes in a grinder or pulverizer till fine powder is obtained. filter the powder through mesh size 85 to remove coarse fibers and other particles. keep the powder in a dry and air-tight plastic or glass container and consume it before the next rainy season²⁰.

Dosage form

dusty grey fine powder.

Therapeutic properties

katuka is bitter tonic with cooling, laxative, carminative, digestive, stomachic, hepato protective, anti-viral, anti-pyretic, immuno modulating , free radical scavenging,, anti-spasmodic and anti-inflammatory properties .in large doses it acts like purgative²⁰.

Dose and mode of administration

The dose of katuka powder for adults is 1-3gms and for children 500mg- 1 gm to be taken twice daily with water, preferably after meals. consuming the medicine on an empty stomach should be avoided as it may cause nausea and vomiting due to its highly bitter taste²⁰.

Ear ache**Lashunaoil****Composition**

lashuna oil comprises of lashuna and mustard oil⁵

Name	English name	Latin name	Family	Part used	Chemical constituents
lashuna	Garlic	Allium sativumlinn.	Liliaceae	bulb	Volatile oil containing allyl disulphide, diallyldisulphide, allin, allicine, mucilage , albumin
sarshapa	Mustard	Brassica compestris	Brassicaceae	Seed	Fixed oils and the glycerides of palmitic, stearic, oitic linoleic, linolenic, eicosenoic

Method of preparation

Take about 20ml of mustard oil in vessel and add 5-6 pieces of peeled and slightly crushed fresh garlic cloves. put the mixture on a slow fire for about 5-10min till garlic becomes brown and stop further heating. Filter the mixture through cotton cloth to obtain clear oil and keep it in a clean glass bottle⁵.

Dosage form

Luke warm, pungent ,yellowish -brown oil.

Dose and mode of administration

Instill medicated oil in the affected ear by tilting the head to opposite side and retain it for about 30mins by plugging the ear with the cotton swab. repeat the process for other ear if affected. instillation of oil in the ears can be done twice daily for 2-3 days⁵.

Therapeutic properties

Fresh garlic is anti-inflammatory , anti-fungal, anti-bacterial, anti-viral and anti-helmentic⁵.

Diarrhoea
Katujapowder
composition

Katuja powder is prepared from the stem bark of kutaja⁸

English name	Latin name	Family	Part used	Chemical constituents
kulchi , telicherry bark	holarrhenaantidysentericaroxb.	apocynaceae	stem bark	conessine, conessemine,kurchicine

Method of preparation

Take 50gms of dried stem bark of kutaja and further dry it in the shade to remove moisture for easy powdering. grind stem bark in a grinder or pulverizer till fine powder is obtained. filter the powder through 85mesh to remove coarse particles and fibers. The shelf life of the powder is 4months but it can retain its potency for at least 6months, if kept in an air tight container and protected from direct sunlight and heat⁸.

Dosage form

Bitter brownish powder⁸.

Therapeutic properties

The bark of kutaja has anti-diarrohoeal, constipating, astringent, anti-dysenteric, anti-helmentic, carminative and digestive properties⁸.

Dose and mode of administration

The adult dose of kutaja powder is 3-5gms for children, 500mg-1gm twice or thrice daily with warm water before meals⁸.

CONCLUSION

Herbs and product containing herbs have been in trade and commerce and are currently used for a variety of purposes. Treatment of herbs by squeezing, steaming, roasting, decocting or infusing in water, extracting with alcohol, or sweetening and baking with honey can create herbal products such as juices, tinctures, decoctions, infusions, gums, fixed oils, essential oils and resins. Herbal medicines are being used by about 80% of the world population in the developing countries for primary health care. They have stood the test of time for their safety, efficacy, and cultural acceptability and less toxic. The chemical constituents present in herbs are part of the physiological functions of living flora and hence they are believed to have better compatibility with the human body.

REFERENCES

1. Sharma PC, Yelne MB and Dennis TJ. The Ayurvedic Pharmacopoeia of India. Ministry of Health & Family Welfare, Department of Indian Systems of Medicine and Homeopathy, New Delhi, India, Reprinted Edition. 2001;1(I):5-6.
2. Database on Medicinal Plants Used in Ayurveda, Central Council for Research in Ayurveda & Siddha, New Delhi. 2001;3:14.
3. India, Ministry of Health and Family Welfare. The Ayurvedic pharmacopoeia of India. Part I. Vol. III. New Delhi: Department of Indian Systems of Medicine and Homeopathy. 2001;116. National Institute of Science Communication.
4. The useful plants of India. New Delhi: Council of Scientific and Industrial Research. The Wealth of India. 2000.
5. Chatterjee A and Pakrashi SC Raw materials. New Delhi: Public Information Department, Council of Scientific and Industrial Research. The treatise on Indian medicinal plants. 1988.
6. Chatterjee A and Pakrashi SC. The treatise on Indian medicinal plants. New Delhi: National Institute of Science Communication, Council of Scientific and Industrial Research. 1997;5.
7. Kirtikar KR and Basu BD. Database on medicinal plants used in Ayurveda. Vol. 3. New Delhi: Central Council for Research in Ayurveda and Siddha. Indian medicinal plants. Vol. III. Allahabad: LM Basu. 1988. 2005;283.
8. Kurup PNV, Ramadas VNK and Joshi P. Handbook of medicinal plants. New Delhi: Central Council for Research in Ayurveda and Siddha. 1979.

9. Pharmacological investigations of certain medicinal plants and compound formulations used in Ayurveda and Siddha. New Delhi: Central Council for Research in Ayurveda and Siddha. 1996.
10. Bhattacharjee SK. Handbook of medicinal plants. Jaipur: Pointer Publishers. 1998.
11. Chopra RN, Chopra IC and Varma BS. Supplement to glossary of Indian medicinal plants. New Delhi: Publications and Information Directorate, Council of Scientific and Industrial Research. 1992.
12. Billore KV. Data base on medicinal plants used in Ayurveda. Vol. VI. New Delhi: Central Council for Research in Ayurveda and Siddha. 2004;158.
13. Lavekar GS. Data base on medicinal plants used in Ayurveda. Vol. VIII. New Delhi: Central Council for Research in Ayurveda and Siddha. 2007.
14. Dravyaguna-vijnana. Varanasi: Chaukhamba Sanskrit Bharati Academy, India. Ministry of Health and Family Welfare. 1978;2:313
15. The Ayurvedic formulary of India. New Delhi: Department of Indian Systems of Medicine and Homeopathy. 2000;II.
16. Sharma PC, Yelne MB and Dennis TJ. Charakasamhita commentary. Sootrasthana 25, 40. Varanasi: Chaukhamba Bharati Academy. 2005;468.
17. Database on medicinal plants used in Ayurveda New Delhi: Central Council for Research in Ayurveda and Siddha. 2002;1:447.
18. Tripathi, Studies on mechanism of action of Albizzialebeck, an Indian indigenous drug in the treatment of atopic allergy. Journal of Ethnopharmacology.
19. Indian Council of Medical Research. Medicinal plants of India. New Delhi: ICMR, 1976. Mitra Roma. Bibliography on pharmacognosy of medicinal plants. Lucknow: National Botanical Research Institute. 1985;1.
20. India, Ministry of Health & Family Welfare. The Ayurvedic pharmacopoeia of India. Part I. Vol. I. New Delhi: Department of Indian Systems of Medicine and Homeopathy. 2001;5:26,47.