

A Review on Traditional Drugs

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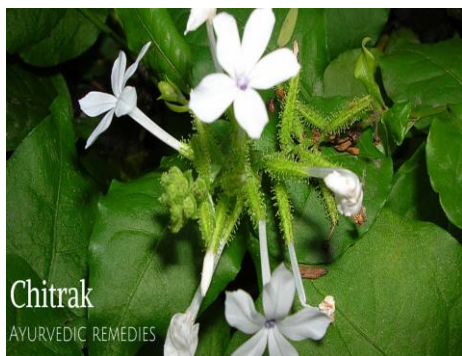
ABSTRACT

Natural products have played an important role throughout the world in treating and preventing human diseases. Natural product medicines have come from various source materials including terrestrial plants, terrestrial microorganisms, marine organisms, and terrestrial vertebrates and invertebrates and its importance in modern medicine. The value of natural products in this regard can be accessed from: (i) the rate of introduction of new chemical entities of wide structural diversity, including serving as templates for semi synthetic and total synthetic modification, (ii) the number of diseases treated or prevented by these substances, and (iii) their frequency of use in the treatment of disease. On this basis drug like chitrak, kalijiri, Shilagit, Shankhpuspi, Palash, Kantakari are reviewed

Keywords: Chitrak, Kalijiri, Shilagit, Shankhpuspi, Palash, Kantakari, Plumbago Zeylanica, Candida Albicans, Digestive, Haemorrhoids, Vernonia Anthalmintica

I. INTRODUCTION

1) Chitrak¹⁻²



Synonyme

Hindi- Cheeta

Telgu-Chitramulamu

English-Leadwort

Bengali- Chita

Sanskrit- Anala, dahana, Pithi, Vashisajanaka, agni, Jyoti.

Geographical Source

Found throughout India.

Chemical Constituents-

Chitranone, Plumbagin, 3-chloro plumbagin, Droserone, Elliptinone, zeylalone and zeylinone, Maritone, Plumbagicide, Dihydrasterone, B-sitosterol.

Macroscopy

Roots 30 cm or more in length 6 mm or more in diameter, as also as short stout pieces, including root stocks reddish to deep brown, internal structure striated, odour disagreeable, taste acrid.

Microscopy

T.S. of root shows outermost tissue of cork consisting of 5-7 rows of cubical to rectangular dark brown cells, secondary cortex consist 2-3 rows of thin walled rectangular, light brown cells, most of the cortex cells contains starch grains. Secondary cortex followed by a wide zone of cortex, composed of large polygonal tangentially elongated parenchymatous cell varying in size and shape, containing starch grain and some cells with yellow contains fiber in groups of 2-6. Phloem, phloem fibers in groups of 2-5 or more, stone cells absent.

Pharmacological Properties

1) Antifungal activity-

Alcoholic extracts of *Plumbago zeylanica* showed strong antifungal against the pathogenic yeast, *Candida albicans* and dermatophytes, *Epidermophyton floccosum*.

2) Antiviral Activity

The antiviral activities of the 80% methanolic extracts of *Plumbago zeylanica* against

Coxsackie Virus B3 (CVB3), influenza A virus and herpes simplex virus.

3) Antiplasmodial Activity

Plumbagin shows antimalarial effects on *Plasmodium falciparum* enzyme. The activity has been 50% inhibited by the naphthoquinone plumbagin at an inhibitory concentration of 5 mM.

4) Anti-oxidant

5) Anti-cancer

6) Anti-allergy

7) Anti-cholesterol

8) Liver protectives

Uses-

Used as Carminative, Digestive, Haemorrhoids, Anti-inflammatory, Anti-colic, Leadwort, Anti-aging purpose.

Side effect- Not safe in pregnancy, may cause or worsen heavy periods. High dose cause burning sensation, Gastritis, Neuropath

Marketed formulations

Chitrak Haritaki : In chronic respiratory Condition.

Chitrakadi Vati : Used in indication.

Kalyanagulam : used in liver and skin condition.

2) KALIJIRI³⁻⁶



SYNONAME-

Vernonia Anthalmintica

BIOLOGICAL SOURCE-

It consists of seeds of *Nigella sativa* Linn.

FAMILY-

Ranunculaceae

REGIONAL NAME-

1) Sanskrit- Sthfilajiraka

2) English- Black cumin

3) Hindi- Somraj

Geographical Source

Nigella sativa is an annual Flowering plant, native to south west Asia.

CHEMICAL CONSTITUENTS

1) 6,9 eicosadien

2) Butyl 11 hydroxy octa decanoate

3) Hexyl 3hydroxy nonanoate

4) Stigmasterol

5) Fatty acid

6) Steroids

7) Carbohydrates

MORHOLOGY

1) Size- 4.5-6mm long

2) color- Dark brown

3) odour- characteristics

4) Taste- Intensely bitter

5) Surface- 10 ridge covers with trichomes

6) Shape- oblong shape pointed from one side & hairy tapered from other end.

Microscopic characters- Seeds are flattened, oblong, angular, funnel shaped, size 0.2cm long and 0.1 cm wide, black in color, slight aromatic odour and bitter in taste.

USES

1) Analgesic & antipyretic activity

2) Antifilarial activity

3) Anthelmintic activity

4) Antimicrobial & antibacterial

5) Antihyperglycemic activity

PHARMACOLOGY

- 1) Formulation of topical cream or ointment for enhancing general health & inhibiting chronic skin disorders such as psoriasis, dryness, inflammation, irritation, rashes.
- 2) Extract of *C. anthelminticum* used in diuretic activity
- 3) Extract of seed used in antimicrobial, antibacterial & antifungal activity.

MARKETED PRODUCT

Madhusnuhi Rasayan

3) KANTAKARI⁷⁻⁹



SYNONYMS-

Kantarika, Sprushi

BIOLOGICAL SOURCE-

Whole plant of *Solanum xanthocarpum*.

FAMILY-

Solanaceae

REGIONAL NAME-

English- Yellow berried night shade
Hindi- Katai
Sanskrit- Anakranta

CHEMICAL CONSTITUENTS-

- 1) Alkaloid solenin-potassium chloride, potassium nitrate, Iron, Diosgenin
- 2) Root & Fruits-solanin, solanidine, fatty acid
- 3) Fruits-Diosgenine

4) some monoprotoplasmic cell containing like alkaloids, tannin, sugar, starch, fat, oil, protein, mucilage, cutin, calcium oxalate

MORPHOLOGY

- 1) It is very prickly perennial herb somewhat with woody base
- 2) Stem branched much & younger one clothed with dense, straight, glabrous & shining, often 1-3cm long
- 3) Leaves are ovate & elliptic, sub cut, stellately hairy on both sides
- 4) Seeds are glabrous

USES

- 1) Piles-post drink proceeds with katakari sunthi dhanyak is given which act as carminative & laxative. One who want eliminate of piles should take butter milk kept overnight in a vessel pasted inside katakhariphala
- 2) Cough
- 3) Fever
- 4) Epilepsy
- 5) Suppression & retention of urine

PHARMACOLOGY

- 1) Pharmacological studies on this herb shown that aqueous & alcoholic extract of the plant posses hypertensive effect which is partly inhibited by atropine.
- 2) The more persistent secondary fall in blood pressure & broncho constriction are inhibited by antihistaminic drug
- 3) Stem flowers & fruits are bitter & carminative. It is employed in cough asthma & pain in chest being used in the form of a decoction.

MARKETED PRODUCT -

- 1) Tulasi katakari cough
- 2) Asthma cough syrup
- 3) Vaidya katakari capsule
- 4) Khadiradi gutika

4) PALASH ¹⁰⁻¹²



SYNONYMS - Dhak, bastard teak

REGIONAL NAME – **Panjab:** keshu, **guj-** kesudo, kerala : plasu, **Marathi** : kakracha

BIOLOGICAL SOURCE: It consist of dried flower of Butea monosperma (Lam).

FAMILY: Fabaceae

MORPHOLOGY- These flowers start appearing in February and stay on nearly up to the end of April. The size is nearly 2 to 4 cm in diameter. These tend to be densely crowded on leafless branches. The calyx i.e. the lower whorl of the flower tends to be darkish gray like the supporting branch itself. The upper parts are brick red. The flowers form a gorgeous canopy on the upper portion of the tree, giving the appearance of a flame from a distance.

CHEMICAL CONSTITUENTS: Triterpin, several flavonoids, butein, butin, isobutrin, coreopsin, isocoreopsin, sulphurein, monospermoside and isomonospermoside, chalcones, auronones, isobutyne, palasitric, Myricyl alcohol, steric, palmitic, arachidic and lignoceric acid, glucose and fructose, histidine, aspartic acid, alanine and phenylalanine.

PHARMACOLOGY

Antihyperglycemic activity: significantly reduce blood glucose improve HDL cholesterol. Antihelmintic activity : dose 3 gm per kg G.I nematode time dependant anthelmintic effect.

USE : Astringent , laxative, anthelmintic, tonic, aphrodisiac, diuretic, antiinflammatory, in treatment of liver disorder and anti estrogenic. Externally it used in for relieving Eczema, itching and other skin disorder.

MARKETED FORMULATION – Mahanarayana taila, 2) palasa kshara 3) Lukol oil – Himalaya

5) NAGARMOTHA

SYNONYMS- Nagrmoth , Nagermotha

REGIONAL NAMES- latin name- Cyperous scariosus, eng- Umbrella sedge, Sanskrit- Nagaramustaka bhadramusta. Hin- Nagermotha

BIOLOGICAL SOURCE- It is obtained from root of Cyperous scariosus.

FAMILY Cyperaceae

MORPHOLOGY

It is a perennial shrub that attains a height of half to 2 feet. It has a thin stem that is of dark green in color. Leaves are long having 1/6 to 1/3 inch broad and sharp. The flowers are present in the raceme presentation. Flowers are 2 to 8 inch in length. The nodes on the stem are thick that bears 1/2 inch diameter, oval shape rhizomes. It is aromatic and is white in color from inside and brown from outside. The plant flowers grow in summer and fruits in winter.

CHEMICAL CONSTITUENTS: Rhizomes of it contain aromatic oil that is 0.5 to 0.6 % there is also present stable oil, beside that it contains alkaloids, mineral and vitamins. The ash contains calcium, phosphorus, sodium and some carbonates. 1) α – pinene 2) Camphene 3) β -pinene 4) Cyperene 5) Copaene 6) Gurjunene.

USE : In fever, Jaundice, Diabetics, Diarrhea, used in skin disease, used as Diuretic, used in lung Disease. Carminative, Analgesic, , Antiinflammatory.

MARKETED FORMULATION:

- 1) Diarex-Himalaya
- 2) Hempushpa oil .

6) Shankhpushpi¹³⁻¹⁴



Synonyms-

Sanskrit- Sankhapushpi

Hindi- Sankhapuspi

Marathi- Shankhavela

Biological Source

Shankhpushpi consist of the whole aerial parts of *Convolvulus pluricaulis* Choisy.

Family- Convolvulaceae.

Macroscopic Characters

Roots- 0. 1-5 cm long, 0.1-0.4 cm thick, yellowish brown to light brown in color.

Stem- Slender , light green, cylindrical in shape, about 0.1 cm or less in thickness with clear hair nodes and internodes.

Leaf- Shortly peyiolate , linearlanceolate, acute apex, hairy on both surfaces; 0.5-2cm long and 0.1-0.2 cm broad, light green in color.

Flowers- White or pinkish in color.

Fruit- Oblong globase with caraceous , pale brown pericarp.

Seed- Brown in color.

Microscopic Character

Root- Putter cork composed of 10-15 Layers of tangentially elongated thick-walled cells, cortex composed of 6-10 layers of oval to elongated, paranchymatus cells. Yellowish brown, tanniferous, secretary cells are present in cortex region; phloem is composed of sieve elements, phloem parenchyma and phloem rays, xylem consisting of usual elements;

medulary rays are 1-3 cells wide and multicellular in length; starch grains are also present.

Stem- Single layer epidermis , covered with thick cuticle and contains unicellular hairs. Cortex is divided in two zone, 2-3 upper collenchymatus and 1-2 lower paranchymatus layers; pericycle present in the form of single stand of fibers in endodermis; phloem mostly composed of sieve element and parenchyma; xylem consist of vessel fibers and parenchyma ; medullary rays and trachids are not distinct and centre slightly lignified pith is seen.

Leaf- Single layered epidermis is covered with thick cuticle, unicellular covering trichomes , epidermis is measophyll region, spongy parenchyma 4-5 layered vascular bundles bicollateral composed of 4-5 layers of parenchymatous cells.

Chemical Constituents

The chief constituents of the drug are an alkaloid known as Shankhapushpine. The drug also contains Volatile oil, higher fatty alcohols, kaempferol , its 3D- glucoside, B- setosterol, carbohydrates such as glucose, rhamnose, sucrose and starch and potassium chloride.

Use : The drug is used as brain tonic, anti- hypertensive and as tranquilizer.

Marketed formulations-

Shankhapushpi syrup

Daber shankhapushpi

7) Shatavari¹⁵⁻¹⁶



Synonym

English- Asparagus

Sanskrit- Narayani

Hindi- Shatavar, Shatamui

Biological Source-

The drug is derived from dried tuberous roots of *Asparagus racemosus* Wild.

Family

Liliaceae.

Macroscopy

The leaves are like pine-needles, small and uniform. The inflorescence has tiny white flowers, in small spikes. The roots are cylindrical, fleshy tuberous, straight or slightly curved, tapering towards the base and swollen in the middle; white to buff color, 5-15 cm in length and 1-2 cm in diameter, irregular fracture, longitudinal furrows and minute transverse wrinkles on upper surface and is bitter in taste.

Chemical constituents-

The active constituents are steroidal saponins, Shatavarins. 1-4, shatavarin 1 is the main active glycoside, the sugar moieties being 3 glucose and 1 rhamnose. The aglycone unit is sarsapogenin.

Uses: The root is alterative, anti spasmodic, aphrodisiac, demulcent, diuretic, galactagogue and refrigerant. It is taken internally in the treatment of infertility, loss of libido, threatened miscarriage, menopausal problems, hyperacidity, stomach ulcer and bronchial infections. Externally it is used to treat stiffness in the joints. The root is used fresh in the treatment of dysentery.

PHARMACOLOGY

Adaptogenic activity

1) Aqueous extract was administered orally to experimental animals of biological, physical and chemical stressors. A model of cisplatin induced alteration in gastrointestinal motility was used to test the ability of extract to exert a normalising effect, irrespective of direction of pathological change. The extract reversed the effects of cisplatin on gastric emptying and also normalized cisplatin-induced intestinal hyper motility.

2) Antiprotozoal activity

An aqueous solution of the crude alcoholic extract of the roots exhibited an inhibitory effect of the growth of *Eintamoeba histolytica* in vitro.

Marketed formulations-

- 1) Himalaya shatavari
- 2) Shatavari kalpa
- 3) Nirogam shatavari plus
- 4) Patanjali shatavari churna
- 5) Nari kalyan churna

8) Shilajit¹⁷



Synonym –

- Hindi- Shilajeet
- Urdu-Salajeet
- English-Mineral pitch or Mineral wax
- Latin-Asphaltum punjabianum
- Locally-shargai, dorabi, barahshin, baragshun

Biological Source

Shilajit is a blackish-brown exudation of variable consistency obtained from steep rocks of different formations found in the Atai mountains.

Chemical Constituent

Fulvic acids, dibenzo alpha pyrones, humic acid, trace minerals, vit .A, B, C and P phospholipids and polyphenol complex, terpenoids. Also present are microelements (copper, manganese, chrome, iron, magnesium).

Pharmacological properties-

Enlarge prostate, urinary problem, increase sex drive, diabetes, antioxidants anti-inflammatory, anemia, arthritis, cholesterol.

Anemia-

Iron is required to make red blood cells, shilajit is a good source of trace minerals and contains iron. The folic acids help carry the iron into the body making it bio-available.

Uses-

- Pramehaghana-Anti-diabetic
- Lekhana- Scropes away
- Medya- Enhance the intellect
- Rasayana- rejuvenative
- Shothara-Anti-inflammatory
- Vrishya- infertility

Marketed Formulation-

- 1) Dabur shilajit
- 2) Pure shilajit Himalaya
- 3) Morpheme shilajit
- 4) Baidhyanath shilajit capsule

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