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SOME POTENTIAL FOLK HERBAL MEDICINES FOR VETERINARY PRACTICES

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ABSTRACT

In India almost parallel with the various systems of medicine like Ayurveda, Yunani, Siddha, Allopathy and Homoeopathy, large sections of society, mainly in rural and remote areas, still use recipes based on folk knowledge. Folk medicines are regularly providing materials for experimental drug research. There is rich folklore in India about veterinary medicine also, and about 1000 plants are already reported to be used in ethnoveterinary practices. The starting plant material for research in veterinary medicine has usually been the same drug which has proven record of useful activity in same or similar ailments in man. Many indigenous recipes used for human ailments do not figure in ethnoveterinary practices, and can lead to prospective veterinary medicine. The paper provides brief account of 25 such plants. Veterinary diseases for which these plants are already known to be used in folk medicines are also indicated. These plants need experimental work and evaluation in veterinary practices.

KEYWORDS: Folk medicines, Herbal Drugs, Ethnoveterinary.

INTRODUCTION

India is primarily an agricultural country with predominance of rural populations and hence animals, particularly cattle, play great role in economy and social welfare. Ancient literature like Vedas, Purans and Nighantus are replete with references to animal health care. There are Purans like Aswapuran, Garudpuran and Hastipuran devoted to animal husbandary.

As regards management of ailments in animals, and research in veterinary medicines, expecting the diseases specific to animals (like hoof and mouth disease) usually, the initial experimental material has been the same as for drugs for humans. In India almost parallel with the various systems of medicine like Ayurveda, Yunani, Siddha, Allopathy and Homoeopathy, large sections of society, mainly in rural and remote areas, still use recipes based on folk knowledge. [1]

In last few decades, a very valuable source of information on starting research materials has been the indigenous knowledge of folk medicines. Different regions of India have information on folk medicines for ethnoveterinary practices. [2, 3]

Though folk recipes were reported for almost all ailments, the most commonly treated ailments dealt in folk veterinary practices were cuts and wounds, diarrhea, lactation and boils and sores. It was very interesting to note that many folk veterinary practices in India compared well with folk practices in some other countries like Spain, Jordan, Central Europe and Tanzania. [4]

The data available on over 2500 ethnobotanicals reported from India was screened and it was found that over 300 recipes based on 200 plants were unknown or little known in the commonly used and recorded herbal drugs for humans in Ayurveda, and Unani.[5,6] All these herbal remedies are great importance for animal healthcare in India. The present article deals with herbal recipes from ethnomedicinal sources, and which are not so far included in ethnoveterinary practices of India, nor do they seem to be widely known for animal health care. [2,7,8]

RESULT

***Achillea millefolium* L. (**Asteraceae)

Local name-Gundna, Biranjsifa, English name-Milfoil (fig-1)

Botanical charcter- Ecrect herbs upto 60cm high with sessile 3-pinnatisect leaves and radiate whitish heads (5-7mm diam).

Medicinal use- In Ladakh the whole plant is used for killing intestinal worms. [9]

Uses in EthnoVeterinary practices **(EVP)** - It is known to cure Liver ailments.

Achyranthes bidentata Bl. (Amaranthaceae)

Local name-Lishkura, Oga, Kutub (fig-2)

Botanical character- woody herbs, flowers small reddish in slender spikes.

Medicinal use- Folk in Uttar Pradesh use leaf juice for blisters in mouth. Leaf juice with onion juice is given for cholera. [10]

Uses in EVP- Galactagogue (whole plant).

Aerva lanata (L.) Juss.ex Sch. (Amaranthaceae)
Local name- Kondapindi chettu, Gorakh buti, Kapurjari (fig-3)
Botanical character- Wooly herbs, flowers white minute in axillary spikes.
Medicinal use-People of Rajasthan use the whole plant on skin diseases. Santal and Pahariya tribes of Bihar use the plant in malarial fever. [11]
Uses in EVP- Antidote (root), Snakebite, insectbite (root), Galactagogue.

Anosgeissus latifolia (Roxb. ex DC.) Wall. Ex Guill. Perr. (Combretaceae)
Local name- Bakla, dhavada, Vellanava, Dhou, English name-Axle-wood (fig-4)
Botanical character- Trees with white or grey bark, Flowers greenish yellow in globose heads.
Medicinal use-Inhabitants of Abujh- Marah area in Madhya Pradesh use its bark for skin disease. The bark is pounded and the extract applied locally. [12]
Uses in EVP- Snakebite (seed)

Arisaema jacquemontii Bl. (Arecaceae)
Local name-Baank, Khan-bang, Yas (fig-5)
Botanical character- Erect herbs, leaflets unequal, Spathe green with white stripes.
Medicinal use- Khasi and Garo in Meghalaya use its tuberous root for skin diseases. The root is crushed and the juice is given to treat ringworm and also applied on various skin infections. [13]
Uses in EVP- wound healer (tuber).

Barringtonia acutangula (L.) Gaertn (Barringtoniaceae)
Local name-Hinjal, Injur, Samudra phal.(fig-6)
Botanical character-Trees, leaves upto 15cm long, flowers in long raceme, fruit quandrangular, 2.5 cm long.
Medicinal use- Santal and Mahali tribes of Mayurbhanj in Odisha use its seeds for liver trouble. The seeds are powdered and given with water. [14]
Uses in EVP- Diarrhoea (flower)

Bauhinia purpurea L. (Fabaceae)
Local name-Kachnar, Baper, English name-Camel's Foot tree (fig-7)
Botanical character- Medium-sized trees, leaves rounded, bilobed, flowers rosy-purple
Medicinal use-Among the inhabitants of Dharmpuri Forest Division in Tamil-Nadu, the leaf-paste of this plant mixed with milk/latex of *Jatropha curcas* is administered to cure jaundice. [15]
Uses in EVP- Swell neck (bark), Rinderpest (bark), Bone fracture (bark)

Blepharispermum subsessile DC (Asteraceae)
Local name- Batvali, Nallipodla, Rasnajadi (fig-8)
Botanical character- Glabrous shrub with subsessile, coriaceous leaves and flowers-heads in solitary clusters of 2-4 cm diam.
Medicinal use- Folk of Madhya Pradesh, powder its root and give 5g. to cure scabies and other skin diseases. [16]
Uses in EVP- Flatulence (root).

Boehmeria macrophylla Horn. (Urticaceae)
Local name- Khagsu, Patltae, Chhyal, Seyar (fig-9)
Botanical character- Shrubs with hispid, 10-30 x 8-15cm leaves and small white flowers in spikes.
Medicinal use- Inhabitants of Kangra district in Himanchal Pradesh use its leaves for curing eczema. One mature leaf or 2-3 small leaves are ground with 2-3 grains of black pepper and powder is applied on the affected parts. It is found effective for any type of eczema. [17]
Uses in EVP- Galactagogue (leaf, Fodder), Diarrhoea (whoe plant).

Boenninghausenia albiflora (Hk.) Reichb. Ex Meisssn. (Rutaceae)
Local name- Dampate, Jumare jhar, Upanyaghas (fig-10)
Botanical character- Herbs, leaves 3-4 pinnate, flowers white or reddish, in leafy cymose panicles.
Medicinal use-Monpas of Kameng district in Arunachal Pradesh make the root into a paste and apply it locally to cure old wounds. [18]
Uses in EVP- Lice (leaf), Parasites, Stomach ache, Expel leech, Flea (leaf)

Cissampelos pareira L (Menispermaceae)
Local name- Poa, Chutulutur, Akandi, Harjori, English name-False Pareira root (fig-11)
Botanical Character- Twining deciduous tomentose shrubs with cordate leaves on long petioles, flowers greenish yellow, fruits hirsute, scarlet red when ripe.
Medicinal use-Local people of Assam use its leaves for jaundice. About 7-10 ml juice from the leaves is mixed with 10g sugar and 200 ml cow milk. The mixture, in a pot made up of banana leaf-sheath or of clay, is taken on an empty stomach for three consecutive mornings. [19]
Uses in EVP- Fever (root).

Clematis buchananiana DC. (Ranunculaceae)
Local name-Ghatyali, Kilmwari, Marchhya (fig-12)
Botanical character-Woody tomentose climbers, sepals greenish yellow, stamens conspicuous anthers twisted.
Medicinal use-Angami Nagas of Nagaland apply the paste of leaf locally for sores and skin diseases. [20]
Uses in EVP-Poison (twig)

Clematis hedysarifolia DC. (Ranunculaceae)
Local name-Tiuni, Morvel. (fig-13)
Botanical character- woody shrubs, flowers greenish yellow, filaments glabrous
Medicinal use-Decoction of root is given in Gujrat as anthelmintic. [21]
Uses in EVP- Swell neck (whole plant)

Cochlospermum religiosum (L.) Alston. (Cochlospermaceae)

Local name- Gong, Gongal, Aluru, Katira Pili kapas, English name- White Silk Cotton (fig-14)
Botanical character-Shrubs or trees, up to 10m high, Flowers greenish yellow, up to8cm across, capsule obovoid 5-10 x 2.5- 8cm, 5-valved, ribbed
Medicinal use- Santals of Bihar use bark of stem for Jaundice. [22]
Uses in EVP- Bone fracture (bark)

Combretum roxburghii Spr. (Combretaceae)
Local name-Phalandu, Aten, Rateng (fig-15)
Botanical character- Extensive shrubby climbers, spikes tomentose, up to 3cm long with large white leafy bracts in large panicles, fruits up to 3.5 cm, winged.
Medicinal use-Garos of Meghalaya use its leaves for diarrhea and gastric trouble. [23]
Uses in EVP- Wound (root).

Costus speciosus (Koen.) Sm. (Zingiberaceae)
Local name- Keoli, keu, Adavi, Peru, Kusth, Pokar-mul. (fig-16)
Botanical character- Tall robust herbs (leaves like *Canna*), flowers white, capsules globose red.
Medicinal Use- Garos of Meghalaya use its rhizome for Jaundice. [24]
Uses in EVP- Injury (rhizome), Fever (root), wound (stem).

Curcuma aromatica Salisb (Zingiberaceae)
Local name-Kachaur, English name- Wild Turmeric (fig-17)
Botanical character- Herbs, rhizomes strongly aromatic, whitish inside, leaves long-petioled, Spikes 15cm long, lower bracts green, upper pink-tipped
Medicinal use- Khasi and Garo tribes of Meghalaya make its rhizome into a paste and take with water to kill intestinal worms. [13]
Uses known in EVP- Scabies (rhizome)

Cyperus rotundus L. (Cyperaceae)
Local name-Bhatha-bijir, Mutha, Piri-jimut, Bhahamutha, English name- Nut Grass (fig-18)
Botanical character-Tufted, tuberous herbs, leaves flat, scabrous with brown sheaths, spikelets narrow
Medicinal use- Garos of Mehgalaya use its tuber in mixture with many herbs for Jaundice. [24]
Uses in EVP- On inflammation of mammary glands (tuber), Expels intestinal worms (root).

Dregea volubilis (Linn. F.) Benth. ex Hook f. (Asclepiadaceae)
Local name- Pessa, Madhu malti, Nuk Chinkni, Juttupala teega, Kaand veli. (fig-19)
Botanical character- Perennial woody twiners with watery sap, Flowers in umbellate cymes, pale green, follicles long green.
Medicinal use- Tribals of Ranchi and Hazaribagh district in Jharkhand use its roots as vermifuge. [25]
Uses in EVP- Galactagogue (whole plant), Swell gland (fruit), wound (leaf)

Elytraria acaulis (L.f.) Lind. (Acanthaceae)
Local name- Yeddunulakaku, Ho-muli, Nilakadambu, Sasamula (fig-20)
Botanical name- Herbs with leaves in rosettes, and white flowers.
Medicinal Use- Among several tribes of north Gujrat, the root paste is recommended for the treatment of colic pain. [26]
Uses in EVP- Antidote (leaf), Respiratory diseases (leaf), Sore (leaf), broken horns (mixture of plant powder, powdered seeds of *Panicum sumatrense* and some red soil, applied as plaster)

Gardenia turgida Roxb. (Rubiaceae)
Local name- Duduki, Katolmaram, Kharhar, Pendra (fig-21)
Botanical character-Among Bhil, Dhanka, and Nayaka tribes of Khend-Brahma region of north Gujarat, its seeds are made into a paste given to cure food poisoning. [26]
Uses in EVP- Eye (fruit)

Hedyotis scandens Roxb. (Rubiaceae)
Local name- Tite ko latto, baina, Haniktu, Kalomuntey, Kimprong (fig-22)
Botanical character- Much branched climbers, leaves 8-13 cm green when dry, cymes spreading, leafy, sometimes puberulous, flowers subumbellate, capsules broadly obovoid.
Medicinal use- Nagas use its leaves for skin affections. Its crushed leaves are rubbed on skin to cure wart like disease.[27] Inhabitants of West Sikkim use its root as vermifuge and give the extract of its crushed roots for Jaundice. [28] Inhabitants of Jalpaiguri in West Bengal give the root paste for diarrhoea and stomach pain. [29]
Uses in EVP- Galactagogue (whole plant)

Leea macrophylla Roxb. ex Hornem. (Leeaceae)
Local name-Hati-lor, Hat-kan, Bir-kanda, Sukadini (fig-23)
Botanical character- Herbaceous plants, leaves large and simple, flowers greenish, ripe berries black.
Medicinal use- Agari, Bhil, Raikare and other tribes of Dahanu forest division in Maharashtra take the extract of its roots as vermicide. [30]
Uses in EVP- Dysentery (root), Bone fracture (leaf)

Leucas cephalotes (Roth) Spr. (Lamiaceae)
Local name-Gumma, Go-gashi, Drupi-sag, Tummi, Dron-pushpi (fig-24)
Botanical character-Herbs, flowers white in large terminal spikes.
Medicinal use- Kol of Banda district in Uttar-Pradesh use decoction of the plant for malarial fever. Leaf is used for curing old boils. [31]
Uses in EVP- Snakebite, wound (seed), Migraine (leaf).

Ranunculus hirtellus Royale (Ranunculaceae)
Local name- Mangol (fig-25)
Botanical character- Perennial, erect or decumbent herbs, flowers solitary or several, yellow

Medicinal use-Amchis of Ladakh use decoction of the plant for killing intestinal worms. [9]
Uses in EVP- Refrigerant (aerial parts), Cut (whole plant), Wound (whole plant).

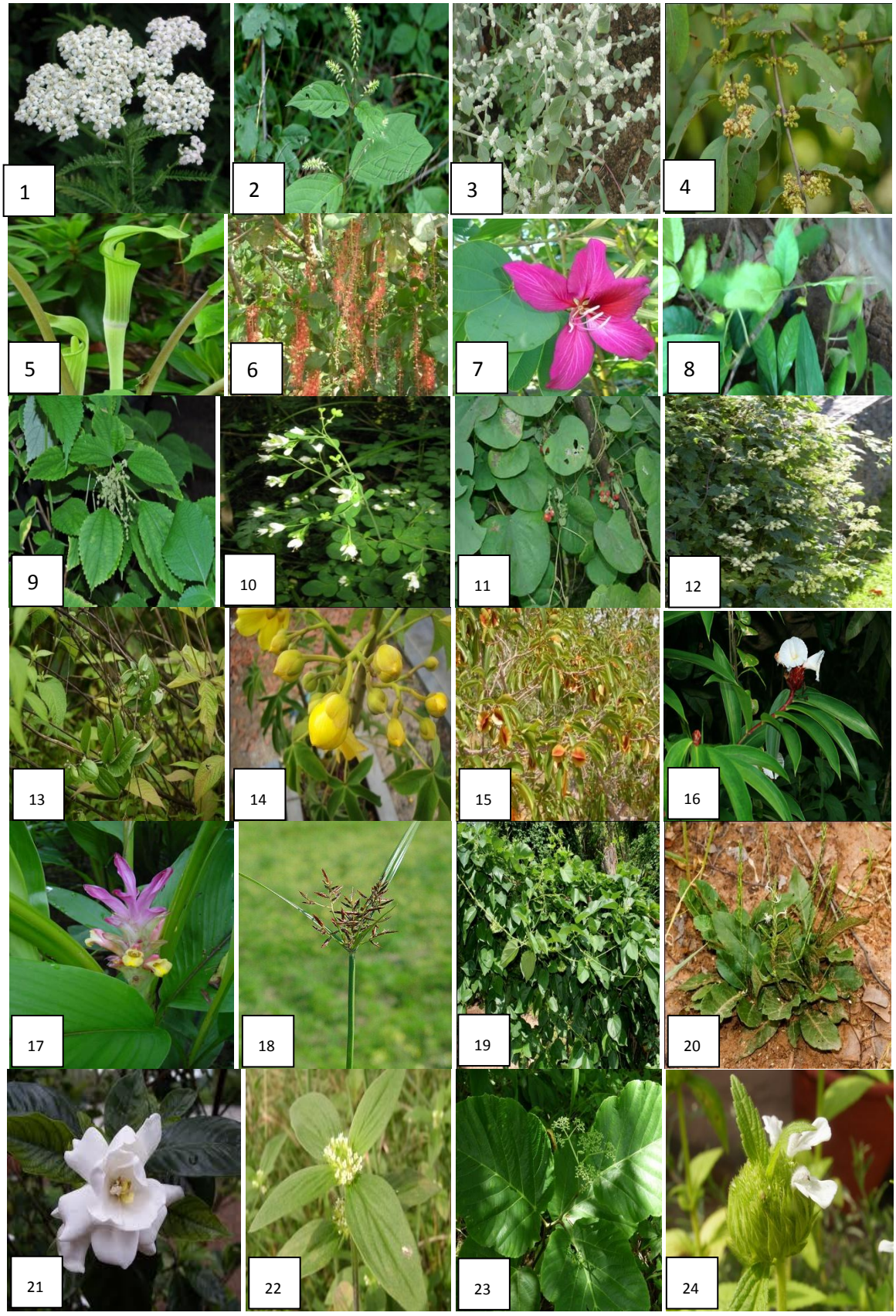

Fig-1-*Achillea millefolium*, Fig-2 *Achyranthes bidentata*, Fig-3*Aerva lanata*, Fig-4 *Anosgeissus latifolia*, Fig-5 *Arisaema jacquemontii*, Fig-6 *Barringtonia acutangula*, Fig-7 *Bauhinia purpurea* , Fig-8 *Blepharispermum subsessile*, Fig-9 *Boehmeria macrophylla*, Fig-10 *Boenninghausenia albiflora* , Fig-11*Cissampelos pareira*, Fig-12 *Clematis buchananiana*, Fig-13 *Clematis hedysarifolia* , Fig-14 *Cochlospermum religiosum* , Fig-15 *Combretum roxburghii*, Fig-16 *Costus speciosus*, Fig-17 *Curcuma aromatic*, Fig-18 *Cyperus rotundus* , Fig-19 *Dregea volubilis*, Fig 20-*Elytraria acaulis*, Fig-21 *Gardenia turgid*, Fig-22 *Hedyotis scandens*, Fig-23 *Leea macrophylla* , Fig-24 *Leucas cephalotes*, Fig-25 *Ranunculus hirtellus*

DISCUSSION

The above data relates to following diseases or properties:

Anthelmintic
Blisters
Boils/wounds
Digestive disorders
Food poisoning
Intestinal diseases
Liver ailments/jaundice
Malaria/fevers
Skin diseases

As the plants are already reported to be in use for human ailments among aboriginal societies, and do not seem to be subjected to much experimental evaluation in animals, it can be hoped that they can provide useful starting material for research in veterinary medicine. Experimental work followed by field test can be expected to yield useful data and some additional herbal recipes for animal health.

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