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ETHNOMEDICINAL PLANTS USED IN TREATMENT OF LEUCORRHOEA DISEASE IN BUNDELKHAND REGION, INDIA

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ABSTRACT

Leucorrhoea is an excessive discharge of a white, sticky, foul-smelling material from the vagina. Physiologic leukorrhea is a normal condition occurring within several months to a year of the onset of menses in adolescent girls. However, in many cases, leukorrhoea is a sign of infection, especially when the discharge is yellow or green, has an offensive odour, and is accompanied by irritation, itching, pain or tissue inflammation. It causes lot of discomfort, stress, weakness, tiredness, exhaustion, multiple aches, multiple somatic complaints and affect the sexual preferences. This common problem may occur due to unhygienic conditions, infection of the genital tract, or impaired immune function. Most of the people do not approach doctors due to hesitation, lack of knowledge, high cost of medicines and different instrumental treatments, etc. Ethnomedicinal plants are very cheap and easily available. The present study was initiated with an aim to identify medicinal plants resources from traditional practitioners of Bundelkhand region to treat leucorrhoea.

KEYWORDS: Bundelkhand region, Ethno-medicinal, India, Leucorrhoea, Traditional practitioners.

INTRODUCTION

Human beings have always had resource to nature for health and life. Practice of indigenous medicines is one of the advancing frontiers of medical science. From time immemorial plants have played a significant role as curative and protective agents; at present there are many valuable and life-saving medicines obtained from plants. Leucorrhoea is generally whitish, yellowish, or greenish vaginal discharge in females that might be normal or a symptom of

infection. It is almost mucus discharge, which exhibit exfoliation of vaginal epithelial cells due to estrogen influence on the vaginal mucosa. Such discharges may originate from the vagina, ovaries, fallopian tubes, or, most commonly, the cervix. The common causes of this disease are excessive coitus, abortion, high parity, lower socioeconomic status, poor hygiene, faulty dietary habits, excessive work load etc. This disease is associated with bodily complaints of weakness, tiredness, exhaustion, multiple aches and multiple somatic complaints. It may cause a lot of discomfort and stress, and even affect the sexual preferences and libido. These diseases lead to infection of the cervix, which is indeed one of the most common gynecological disorders. The infection has a tendency to irritate the mucus glands of the cervix, causing them to secrete an excess of mucous mixed with pus. It may be mild to severe, and varies from person to person. It is mainly two types: physiological and pathological. The Physiological leucorrhoea is due to the stimulation of estrogens. The changes in the vaginal epithelium, changes in the normal bacterial flora and pH of the vaginal secretion predispose to the leucorrhoea. In pathological leucorrhoea different pathogens like *Trichomonas vaginalis*, *Neisseria gonorrhoeae*, *Candida albicans* are exclusively involved and some other potential agents like *Ureaplasma urealyticum*, *Chlamydia trachomatis*, candida-like organisms and streptococci are responsible. This common problem may occur due to unhygienic conditions, infection of the genital tract, or impaired immune function.

The study area district Mahoba of Bundelkhand region is the oldest and historically the most important area. The Bundelkhand region comprises districts Banda, Hamirpur, Mahoba, Jhansi, Lalitpur and Jalaun in Uttar Pradesh and some district of M.P. District Mahoba lies in Lat. 25° 18’ N and long 79° 53’ E. The total area of the district is about 3071 sq. kms. It is bounded by the district Hamirpur on the north; Banda on the east, the state Madhya Pradesh on the south and district Jhansi on the west.

Tribes Saharia, Gonds and Kol are found in some areas of Bundelkhand region. Besides these tribes, district is also visited periodically by Kanjad, Kuchbandhiya, Kanfara, Parkola and Jasaundhi. They have a very good mosaic culture of many adjoining districts.

The present study was initiated with an aim to identify medicinal plants resources and traditional knowledge of tribal and non-tribal people of district Mahoba of Bundelkhand region, India to treat the leucorrhoea. A synoptic account of these medicinal plants with their species, family, parts used, approximate doses in possible cases and ethno–medicinal values to cure leucorrhoea has been prepared in the present investigation.

MATERIALS AND METHODS

At the course of ethnomedicinal exploration of the district Mahoba of Bundelkhand region and adjoining areas, usual field & herbarium methods have been followed for collection of ethnomedicinal information and voucher plant specimens. All the plants, on which the information's are based, have been deposited in Duthie Herbarium, Botany Department, Allahabad University Prayagraj. Gathered information's were compared with various published literature to find out new ones. Out of lots, fourteen information's found to be new which are given below in following sequences, Botanical name, Family name, Local name, Plants characters, Locality, Collection number, users, and recorded traditional uses.

OBSERVATION AND RESULT

The following plants preparations were found to new and unreported for leucorrhoea as for as our study goes.

- ***Abelmoschus* esculentus** (L.) Moench.

Family: Malvaceae

Local Name: Bhindi

Plant Characteristics: Annual herbs, up to 1m height. Leaves sub orbicular, hispidly hairy. Flowers shortly pedicelled in terminal racemes. Capsules apiculate, tomentose. Seeds globose, dark brown.

Locality: Cultivated

Collection Number: 319

Users: Villagers and Vaidya

Traditional uses: Flowers; (about 2 tola) crushed and with (1/2) liter whey of cow given orally twice a day.

- ***Sida acuta*** Burm. f.

Family: Malvaceae

Local Name: Beejband

Plant Characteristics: Erect, glabrate or thiny stellate, hairy perennial herb. Flowers 1-2 axillary yellow. Capsules glabrous, subglobose. Mericarps awned, seeds trigonous, dark brown.

Locality: Kabrai

Collection Number: 232

Users: Kanjad and Villagers

Traditional uses: 20ml. Leaf juice decoction given orally twice a day.

- ***Bombax ceiba*** L.

Family: Bombacaceae

Local Name: Semal

Plant Characteristics: Large, deciduous tree, with bulbous prickles on young branches with scarlet flowers. Capsules woody. Seeds covered by cottony hairs.

Locality: Jaitpur and Mauranipur

Collection Number: 244

Users: Saharia and Villagers

Traditional uses: Five petals, with 200 ml. water and misri (crystalline sugar) put an earthen pot overnight, then ground and the paste given orally once in morning for 15 days consecutively.

- ***Corchorus olitorius*** L.

Family: Tiliaceae

Local Name: Chench

Plant Characteristics: Subglabrous, woody-based herbs, upto 1.5m tall. Flowers solitary or paired, bracts subulate. Capsule often longitudinally streaked with red, locules transversely septate.

Locality: Kabrai

Collection Number: 135

Users: Kanjad and Villagers

Traditional uses: Leaf juice, given orally twice a day.

- ***Mucuna pruriens*** (L.) DC.

Family: Fabaceae (Papilionaceae)

Local Name: Kewanch

Plant Characteristics: A more or less extensive, climbing herb with trifoliate leaves and deep purple flowers. Pods long, sigmoid, clothed with brown stinging hair. Seeds ellipsoid, compressed, smooth, dark brown.

Locality: Mahoba, Naraini and Mauranipur

Collection Number: 121

Users: Saharia, Gond and Vaidya

Traditional uses: 5gm Seed powder, with warm water take orally once a day.

- ***Coccinia grandis*** (L.) Voigt.

Family: Cucurbitaceae

Local Name: Kunduru

Plant Characteristics: Perennial, twinning herb. Stem glabrous, grooved. Leaves 5 lobed cordate at base, Flowers large, white. Male flowers in 1-3 together in leaf axis. Female flowers, solitary calyx companulate. Fruit ellipsoid oblong, cylindrical with rounded ends. Seeds ovoid compressed.

Locality: Cultivated

Collection Number: 147

Users: Villagers, Vaidya and Kol

Traditional uses: Leaf and root juice, given orally twice a day.

- ***Amberboa ramosa*** (Roxb) Jafri.

Family: Asteraceae (Compositae)

Local Name: Brahmadandi

Plant Characteristics: A procubent, dichotomonsly branched, spreading annual herb.Head ovaid, peduncles grooved, glabrous, with a few small foliaceous bracts. Achenes acutely angled, narrowed at base.

Locality: Kharela

Collection Number: 103

Users: Gond and Vaidya

Traditional uses: 1ml. Leaf juice, given orally twice a day.

- ***Glossocardia bosvallea*** (L.F.) DC.

Family: Asteraceae (Compositae)

Local Name: Jalneem

Plant Characteristics: Prostrate, diffusely branched, glabrous herbs up to 10 cm long with grooved stem. Heads terminal or axillary solitary. Ray florets 2 dentate and disc florets 4-lobed. Pappus of two small stiff awns.

Locality: Cultivated

Collection Number: 202

Users: Villagers, Kol and Vaidya

Traditional uses: 10ml. Leaf juice decoction given orally thrice a day for 10 days.

- ***Cordia dichotoma*** Forst. f.

Family: Cordiaceae

Local Name: Lasora

Plant Characteristics: Medium-sized trees up to 18m high, branches pubescent, drooping. Leaves alternate elliptic petiole elastis, flowers white usually 5-merous. Drupe ovoid pulp gelatinous, pellucid.

Locality: Kabrai and Dharaun

Collection Number: 36

User: Kanjad, Gond and Vaidya

Traditional uses: Dry fruit powder with sugar (crystalline) given orally, twice a day.

- ***Convolvulus arvensis*** L.

Family: Convolvulaceae

Local Name: Sakhauli

Plant Characteristics: A much branched, trailing or twining, glabrous herbs. Flowers pinkish white pedicel. Capsule globose, glabrous.

Locality: Kabrai and Mataundh

Collection Number: 239

Users: Kanjad and Villagers

Traditional uses: 10 ml. Leaf juice decoction, given orally twice a day.

- ***Amaranthus tricolor*** L.

Family: Amaranthaceae

Local Name: chaulai

Plant Characteristics: Erect-ascending simple or branched annual herbs, woody at base, succulent at above. Flowers in dense, axillary clusters.

Locality: Mahoba

Collection Number: 59

Users: Kanjad and villagers

Traditional uses: Leaf juice, decoction given orally thrice a day for 10 days.

- ***Acalypha indica*** L.

Family: Euphorbiaceae

Local Name: Kuppi

Plant Characteristics: Anual herbs, upto 0.5m height. Stem with many branches. Leaves

glabrous. Stipule subulate, filiform. Inflorescence axillary. Female flowers 1 or 2, towards the base of inflorescence. Capsule hispid. Seeds ovoid and smooth.

Locality: Mataundh and Naraini

Collection Number: 74

Users: Kol and Vaidy

Traditional uses: Leaf juice, given orally twice a day in leucorrhoea and in weakness.

- ***Colocacia esculenta*** (L.) Schott.

Family: Araceae

Local Name: Ghuinya

Plant Characteristics: Herb up to 2m high with underground corms and cormels, leaves shield shaped. Inflorescence spadix.

Locality: Cultivated

Collection Number: 175

Users: Villagers, Vaidya and Kanjad.

Traditional uses: Leaf, juice given orally twice a day.

- ***Desmostachya bipinnata*** (L.) Stapf.

Family: Poaceae(Gramineae)

Local Name: Kush

Plant Characteristics; Pererinial, rhizomatous grass upto 1m high with tough root stock and thick-creeping rhizomes. Leaves, linear convolute narrowed into a filiform tip. Clustered or distant spikelets in Spikelets purple-brown. inflorescence.

Locality: Kabrai

Collection Number: 368

Users: Kanjad

Traditional uses: Root paste, given orally twice a day.

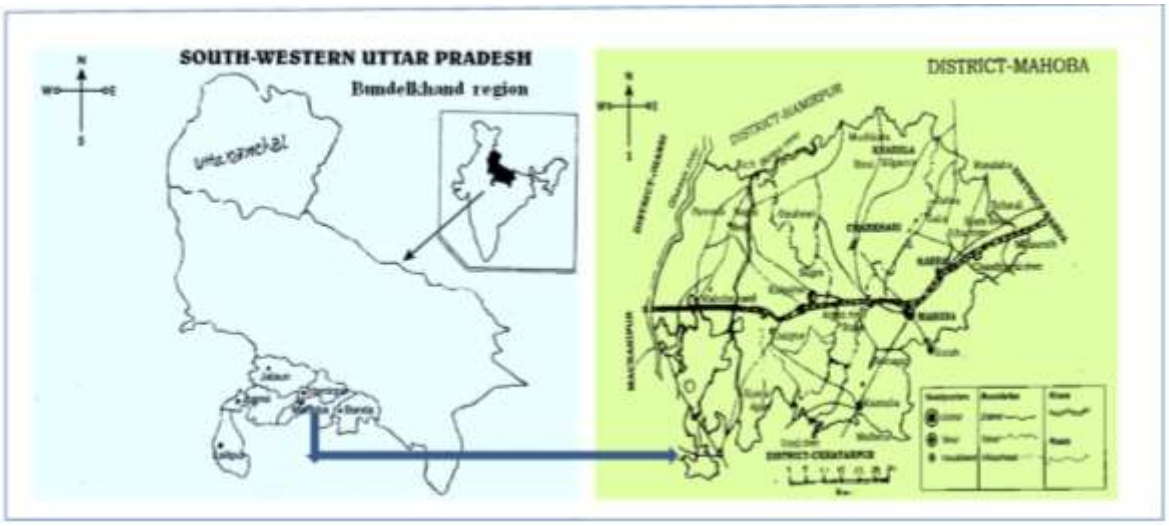

Fig. 1: Map of the study area.

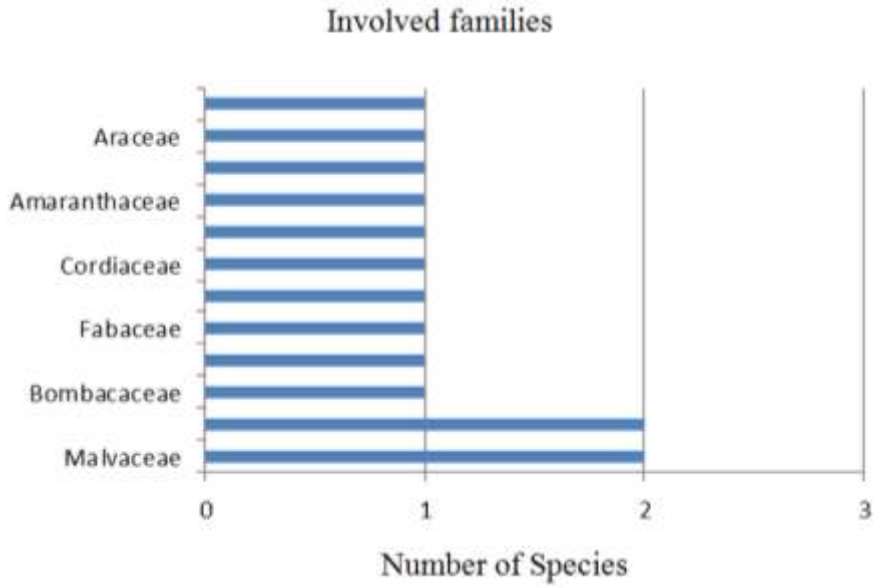

Fig. 2: Involved Families and Number of Species.

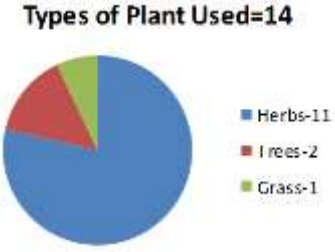

Fig. 3: Types of Plant Used.

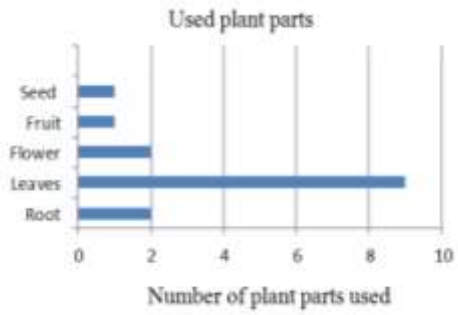

Fig. 4: Used Plant Parts and Number of Plant parts Used.

DISCUSSION

The present study focused mainly on the rural women's health and treatment as they are deprived off the modern medical facilities and they are generally less conscious about their health. The medicinal plants are the best alternative and like the supernatural blessing to the very poor women of the villages but the women do not know which plants are essential for the treatment of leucorrhoea. For that reason they have to go to the local traditional healers for the treatment of this disease. If proper documentation, cultivation procedure and dosages administration of these medicinal plants are done and focused in a very lucid way to the village women it will be better for their own treatment. As there was no past scientific report regarding antimicrobial and phytochemical analysis of the recorded medicinal plants greater effort should be given on the indigenous practice right now. In this situation our investigation is much more appropriate to initiate the investigation in this direction. We hope future detail research work will open new vistas for the formulation of new bioactive compounds in medical world for the treatment of leucorrhoea.

CONCLUSIONS

The present study revealed that the district Mahoba of Bundelkhand region rural people is primarily dependent on medicinal plants for the treatment of leucorrhoea disease. It is now necessary to make tribal people aware about the value of their indigenous knowledge and help the society in preserving this traditional method of treatment by proper documentation and identification of plant species.

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