

Ethno- medicine used by herbal healers and herbalist's treatment in urinary tract infections

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ABSTRACT

The study area is the part of Melghat which is situated in Satpuda range. Wan, Ambabarwa and Narnala wild life sanctuary is the northern part of Maharashtra and southern part of Madhya Pradesh. The work is based on medicinal plants which are usually practice by Korku and Bhil tribes from this area for the treatment of urinary tract infections. Tribal communities basically depend on locally available plants to cure their various ailments. Plant species are used with traditional ways by herbal healers. It's our attempt to procure traditional medicinal knowledge from the tribal herbal healers through the interrogation with them.

Keywords: Herbal, Korku Tribes, urinary tract infections, Wan, Ambabarwa and Narnala wild life sanctuary, Maharashtra, India

INTRODUCTION

From the dawn of life plants have influenced human civilization even today in tribal villages and rural areas traditional healers are using plants species to cure their various ailments. This traditional knowledge should be properly analyzed on scientific basis. Today's need is to properly assembling this traditional knowledge scientifically as people are suffering from side effects of allopathic medicine. The second most common reasons for using traditional medicine are that it is more affordable, more closely corresponds to the patient's ideology, allays concerns about the adverse effects of chemical (synthetic) medicines, satisfies a desire for more personalized health care, and allows greater public access to health information. The major use of herbal medicines is for health promotion and therapy for chronic, as opposed to life-threatening, conditions. However, usage of traditional remedies increases

when conventional medicine is ineffective in the treatment of disease, such as in advanced cancer and in the face of new infectious disease.

Urinary tract infections have affected man since antiquity. A urinary tract infection (UTI) is an infection that begins in the urinary system. It is the second most common disease after respiratory infection. The urinary tract consists of the kidney, ureters, bladder and the urethra. A urinary tract infection (also known as acute cystitis or bladder infection) affects the lower urinary tract it is known as a simple cystitis (a bladder infection) and when it affects the upper urinary tract it is known as pyelonephritis (a kidney infection). The symptoms from a lower urinary tract include painful urination and either frequent urination or urge to urinate (or both), while those of pyelonephritis include fever and flank pain in addition to the symptoms of a lower urinary tract infection (UTI). The concentration of specific constituent, urine pH and infections damage within the urinary tract. (Tiwari *et al.*, 2012). Back pain and previous history of UTI have also been shown to increase the likelihood of UTI and other symptoms that conceptually may increase likelihood of UTI (but about which no data were found) include urinary urgency, new urinary incontinence, voiding of small volumes, suprapubic pain, and nocturia.

More than 95% of Urinary tract infections are caused by single bacterial species *E.coli* which is the most frequently infecting organisms. However, many other bacteria can also cause an infection for example *Klebsiella*, *Pseudomonas*, *Enterobacter*, *Proteus*, *Staphylococcus*, *Mycoplasma*, *Chlamydia*, *Serratia* and *Neisseria* species etc. (Kumar *et al.*, 2012). The different parts of herbal medicinal plants, used to prepare the medicines for the treatment of urinary tract infections, piles, and jaundice (Ladda *et al.* (2013). The traditional medicinal plants are identified, which parts are used to prepare the medicines or used by traditional practitioners for the treatment of urinary tract infections, piles, and jaundice (Ambhore *et al.*, 2013).

During the visits and interrogations with tribal healers, it was noticed that, number of wild plants and their parts are effective in the treatment of urinary tract infections. The use of these plants to cure urinary tract infections is being practiced even today by the tribals and local healers in tribal villages in rural areas of Melghat.

MATERIAL AND METHODS

For the documentation of ethno-medicinal information and collection of plant material several visits were given during 2016 -2017 with the help of local herbal medicine men of Wan, Ambabarva and Narnala, Maharashtra. Information procured about medicinal properties of ethno-medicinal plants were confirmed with different communities of village peoples, tribals, and ethnic group at different places during the investigation. In the beginning, they were very much reluctant to divulge the identity and the location of plant. After persistent convincing and motivation by the author that their information will not be misused the tribals disclosed the secrets of medicinal plants. The plants of significance were collected in vegetative as well as in blooming conditions, simultaneously jotting down the vernacular names and the relevant information disclosed by local practitioners. These practitioners mainly includes the Vaidus belonging to Korku, Bhill and Bhilala tribes and the local medicine men from rural area who are well experienced.

The data presented here is based on personal observations and interviews with herbal practitioners (viz. Vaidus, Bhumkas, medicine men, hakims and old aged people) and methodology is based on the methods available in literature (Jain 1989) and (Jain and Mudgal 1999). The medicinal utilities of plant species along with mode of administration is procured from tribal healer and experience herbal medicinemen in the region who practice crude plant drugs to cure urinary tract infections. Herbariums were prepared and plant identification was done by using regional floras and authenticated by taxonomist. The collected information from the herbal healer of the region were compared with published literature (Kirtikar and Basu, 1933; Sharma and Singh, 2001; Patil and Biradar, 2011).

RESULTS

Scientific names of the plant species with local name, family, parts used to cure urinary tract infections are given in the following table 1.

Table 1: Medicinal plant used for urinary tract infections

Sr. No.	Plant name	Family	Plant parts used	Local Name
1	<i>Aegle mermelos</i> L.	Rutaceae	Leaves	Bel
2	<i>Amaranthus spinosa</i> L.	Amaranthaceae	Leaves	Kateri chavali
3	<i>Launaea nudicaulis</i> Hook.f.	Asteraceae	Leaves	Pathar
4	<i>Azadiracta indica</i> L.	Meliaceae	Root bark	Neem
5	<i>Asparagus racemosus</i> Wild .	Liliaceae	Roots	Satavari
6	<i>Aloe barbadensis</i> Miller.	Liliaceae	Leaves	Korphad
7	<i>Acacia farnesiana</i> (L.)	Fabaceae	Leaves	Guya babul
8	<i>Aerva lanata</i> L.(Juss.ex Schult)	Amaranthaceae	Leaf juice	Kapuri-maduri
9	<i>Artemisia pallens</i> Wall.	Asteraceae	Whole plant	Dawana
10	<i>Butea monosperma</i> (Lam)Taub.	Papilionaceae	Flower	Palas
11	<i>Biophytum sensitivum</i> (L) DC.	Oxalidaceae	Whole plant	Choti lajalu
12	<i>Bacopa monnieri</i> (L.)Wettst.	Plantaginaceae	Whole Plant	Nilbrahmi
13	<i>Cassia sophera</i> L.	Fabaceae	Root	Dev tarota
14	<i>Curculigo orchoides</i> Geartn.	Hypoxidaceae	Rhizome	Kali musali
15	<i>Centella asiatica</i> L.	Apiceae	Whole plant	Bramhi
16	<i>Caesalpinia bonduc</i> (L.)	Fabaceae	Fruit	Sagargoti
17	<i>Costus speciosus</i> (Koen.)Sm	Costaceae	Rhizome	Kevkand
18	<i>Curcuma psau montana</i> J.Graham	Zingiberaceae	Rhizome	Jangali halad
19	<i>Cyperus rotundus</i> L.	Cyperaceae	Root	layali
20	<i>Dolichandrone falcate</i> Seem.	Bignoniaceae	Stem Bark	Medsing
21	<i>Eclipta alba</i> (L.) Hassk.	Asteraceae	Whole plant	Maka
22	<i>Emblica officinalis</i> Gaertn.	Euphorbiaceae	Leaves ,fruit	Avala
23	<i>Echinops echinatus</i> . Roxb.	Asteraceae	Root	Utkatara
24	<i>Kirganelia reticulate</i> (Poir.)	Euphobiaceae	Leaves	Kalamombda
25	<i>Mentha piperita</i> L.	Lamiaceae	Leaves	Peppermint
26	<i>Mimosa pudica</i> L.	Fabaceae	Leaves	Lajalu-
27	<i>Ocimum gratissimum</i> L.	Lamiaceae	Leaves	Ran tulsi
28	<i>Rotula aquatic</i> Lour,	Ehretioideae	Root Bark	Nadi Tulsi
29	<i>Stryconus potatorum</i> L.f	Loganiaceae	Root Bark	Nirmali
30	<i>Solanum xanthocarpum</i> Schrad.	Solanaceae	Root powder	Bhueibringani
31	<i>Solanum nigrum</i> L.	Solanaceae	Fruit	Kamoni
32	<i>Tephrosia purprea</i> L.	Papilionaceae	Root	Unhali
33	<i>Thuja occidentalis</i> L.	Cupressaceae	Leaves	Vidhya
34	<i>Vitis venifera</i> L.	Vitaceae	Fruit	Angur
35	<i>Vernonia amygdalina</i> Delile	Asteraceae	Leaves	Kaduptta
36	<i>Wattakaka volubilis</i> L.	Asclepiadaceae	Root	Gotya / Akad bel
37	<i>Woodfordia fruticisa</i> (L.) Kurz.	Lythraceae	Leaves	Ghayati
38	<i>Zea mays</i> L.	Poaceae	Root	Makka
39	<i>Zizyphus oenoplia</i> (L.)Mill	Rhamnaceae	Root	Kat bor

DISCUSSION AND CONCLUSION

A pathogen is a micro-organism that has potential to cause disease. Various bacteria, fungi and viruses are microbial organisms that causes diseases and are known as pathogens. Plant medicines are less powerful in comparison to artificial drugs in some cases but still these are considered as less toxic or having less side effect in contrast to artificial drugs. The final norm for any medicine is their nontoxicity, effectiveness, specificity, stability and potency. Herbal drugs can reduce the side effects, toxicities of synthetic counterparts and will minimized therapeutic consequences with most effective and vigorous healing effects.

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REFERENCES

- Ambhore JS, Aradwad RP and Ladda RG (2013) Studies on identification of traditional medicinal plants used as remedies on piles by traditional practitioners International Journal of Science And Nature 4 (1) 212-213.
- Jain SK (1989) Methods and approaches in ethanobotany, society of ethanobotanists, Lukhnow, India.
- Jain SK (1999) Dictionary of ethnoveterinary plants of India, Deep publications, New Delhi, India.
- Kirtikar KR and Basu, BD (1933) Indian Medicinal Plants, vol.1-4, Publisher L.M. Basu, Allahabad.
- Kumar Amit, Jhadwal Neeraj, Madan Lal and Singh Manjeet (2012) Antibacterial activity of some medicinal plants used against UTI causing pathogens, *International journal of drug Development & Research*, 4 (2):278-283.
- Ladda RG, Aradwad RP, and Ambhore JS (2013) Studies on herbal medicinal plants in Marathwada region (MS) India. *Bioscience discovery* 2013; 4(2):211-213.
- Patil JU and Biradar SD (2011) Flokloric medicinal plants of Hingoli District, Maharashtra, *Indian Journal of National Products and resources*. 2(1):97-101.
- Tiwari Anand, Soni Vivek, Londhe Vikas, Bhandarkar Ashish, Bandawane Deepti and Nipate Sonali (2012) An Overview on potent indigenous herbs for Urinary Tract infirmity; Urolithiasis, *Asian Journal of Pharmaceutical and clinical research*, 5 (1): 8-12.

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