

Ethno- medicinal studies on barks of some medicinal plants in Marathwada (M. S.), India –I

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Abstract

The Present study provides information regarding the traditional uses of barks of some medicinal plants in Marathwada. Comprehensive ethno medicinal survey conducted in different community blocks of Marathwada region during 2009-2012. It revealed that many plant parts are used as traditional drugs for the treatment of various ailments by the local people. It was also observed that the barks of many plants have high medicinal properties and are used as traditional medicines. Some important such plants are *Acacia nilotica* (L.) Del. subsp. *indica* (Benth.) Brenan, *Adansonia digitata* L., *Aegle marmelos* (L.) Corr., *Ailanthus excelsa* Roxb., *Albizia lebbek* (L.) Willd., *Alstonia scholaris* (L.) R.Br., *Azadirachta indica* A.Juss., *Bauhinia racemosa* Lamk. *Bauhinia variegata* L., *Butea monosperma* (Lamk.) Taub., *Crateva adansonii* Dc. subsp. *odora* (Buch.Ham.) Jacobs., *Diospyros melanoxylon* Roxb., *Erythrina suberosa* Roxb., and *Holoptelea integrifolia* (Roxb.) Planch.

Keywords: Ethno-Medicinal, Bark, Marathwada.

INTRODUCTION

Marathwada region comprising of eight districts, Viz. Aurangabad, Beed, Jalna, Latur, Nanded, Osmanabad, Hingoli and Parbhani. It is a part of the vast deccan plateau of India and is one of the four divisions of Maharashtra State. The total area of 64,798 Km² is bounded by the vidarbha region on the north, by Andhrapradesh on the east and southeast, by Karnataka on the south and by western Maharashtra on the west. In Marathwada the forests are confined to the Ajanta- satmala ranges in Aurangabad district and kinwat, Bhokar and Hatgaon talukas of Nanded district in addition to these, there are some pockets formed here and there in valleys of hilly ranges all over the region (Naik, 1998). The forests have many medicinal plants used by the local people and by the medicinal men in Marathwada. It was also observed that the barks of many plants have high medicinal property and are used as traditional medicines. The present study, therefore aimed to highlight 21 bark yielding plant species belonging to 16 families with their local name and bark used as medicine in Marathwada region.

MATERIALS AND METHODS

The Ethno-medicinal field work of bark yielding plants of Marathwada was conducted followed the methods given by Jain and Rao (1978), Jain (1991) and Jain (1989) as illustrated in Methods and Approaches in Ethno-botany during the year 2009-2012 and detail information were collected after taking interview with the

Vaidhyas, Medicinal practitioners and Local knowledgeable persons who are engaged in the collection of raw materials. Interview from some general persons were also conducted and information regarding the names of plants whose barks are used as drugs, names of the diseases, efficacy of the drugs and mode of application were noted.

OBSERVATIONS

On the basis of field work has been observed that there are certain plants found growing in the part forests of Marathwada whose barks have high medicinal value. These barks are used by the traditional medicinal as drugs for the treatment of various diseases and disorders.

A comprehensive list of such plant prepared has been presented alphabetically below giving their botanical names, common names, methods, of application and the name of diseases against which it is used.

1. ***Acacia nilotica* (L.). subsp. *indica* (Benth.) Brenan. (Family-Mimosaceae).** Commonly known as *Babhul*. Its bark is used in wounds, ulcers, chronic dysentery, leprosy, bronchitis, seminal weakness and oral ulcers. The burnt bark and shell both pulverised and mixed with salt make a good tooth powder. The young branches are used as *datun* or tooth brush. It can also be used to a *Haemonchos contortus* infections in goats and the powdered bark dusted over the bitten part.
2. ***Adansonia digitata* L. (Family-Bombacaceae).** Commonly known *Gorakhchinch*. Bark is used as anti-periodic; decoction of bark is useful in malaria. It is anti-inflammatory; increases digestive power. It is given in headache, urinary disorders and diarrhea. The bark is used for curing fever.

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3. **Aegle marmelos** : (Family- Rutaceae). Commonly known as *Bel*. Bark mixed with flowers of *Unica granatum* in proportion of 2:1. The mixture is dried, crushed to powder. It is very effective against Diarrhea, dysentery, and abdominal pain, recommended dose-one teaspoon twice of thrice daily for 2 to 5 days.
4. **Ailanthus excelsa Roxb.:** (Family- Simaroubaceae) Commonly known as *Maharukh*. Bark is used as tonic, especially in debility after child births. It is reputed as tonic as well as febrifuge properties, skin eruption, Anticancer, Anti fertility and antibacterial activity.
5. **Albizia lebeck (L.) Willd.:** (Family-Mimosaceae) Commonly known as *Shirish*. Bark is astringent, aqueous extract of bark used against conception in women. It is also useful in vitiated conditions of pitta and kapha, strengthening, abdominal tumours, rejuvenent tonic, folk remedy for boils, cough, eye ailments, flue ailment and lungs ailment, diarrhoea and dysentery, nightblindness and gonorrhoea , antihistaminic, antiplasmodic and allergic sinetes.
6. **Alstonia scholaris (L.) R. Br.:** (Family-Apocynaceae) Commonly Known as *Saptarni*. Bark cures gastro-intestinal troubles. It is mild, febrifuse, anti-periodic, useful in intermitent malaria like quinine. It is also useful in skin-diseases, diarrhoea and dysentery, also for snakebite. It is proved valuable in chronic diarrhoea and in advanced stage of dysentery. It is an efficient remedy in debility after fevers and other exhausting diseases. It is used in heart diseases, asthma and stop bleeding of wounds. Bruise and boiled in cottonseed oil, the bark is applied to the ear of deafness. Fresh bark juice with milk is administered in leprosy and dyspepsia.
7. **Azadirachta indica A. Juss.:** (Family- Meliaceae) Commonly Known as *Kadulimb*. Bark is useful in skin diseases, leucoderma, intermitent and malarial fevers, wounds, ulcers, tumour, vomiting, intestinal worms, inflammation, cough and bronchitis. It is given in piles, jaundice. The bark is alterative, astringent, anthelmintic and anti-periodic. It is used in snakebite, and scorpion-sting. The use of 3 gm of the inner bark of neem, with 6 gm of jaggery every morning is very effective in piles. Bark is cherished in local healing tradition; The neem bark is a cool, bitter, acrid, astringent and refrigerant. It is useful in tiredness, cough, fever, loss of appetite, worm infection, vomiting, skin diseases, excessive thirst and diabetes.
8. **Bauhinia racemosa Lamk.:** (Family-Caesapinaceae) Commonly known as *Apta*. Bark is reported to be used to treat diarrhoea, dysentery and urinary discharges. It is applied on wounds and swellings, refrigerant, anti-pyretic, alexipharmic, cures biliousness, thirst, headache, quarten fever, anal fistula, and discharges of blood maleria and headache bone fracture, antitumor and antioxidant The bark is sweetish and acrid, refrigerant, antipyretic, astringent, alexipharmic, vermicial, cure biliousness, urinary discharges, thirst, headache, fever, tuberculous glands, skin diseases, throat troubles, tumours, diseases of blood, chronic dysentery and diarrhea
9. **Bauhinia variegata L.:** (Family-Caesapinaceae) Commonly known as *Kanchan*. Bark is wound healing and cures ulcers, swellings, leprosy, cough, menstrual disorders, glandular diseases and prolapse of rectum. It is also useful in worms, dysentery, piles, and dirrhoea. Bark is alterative and tonic useful in skin diseases and tumours It is depurative, anti-inflammatory, and styptic. It is useful in vitiated conditions of pitta and cough, wounds, scrofula, proctoptosis, haemorrhoides, haemoptysis, menorrhagia and diabetes, anti-inflamatory The bark is sweet, colling, astringent, biliousness kapha, leucoderma, anal troubles, tuberculoses, glands, cough, asthma, diseases of blood, ulcers, vaginal discharges, anthelmintic, used in strangary, thirst, burning sensation.
10. **Butea monosperma (Lamk.) Taub.:** (Family- Fabaceae) Commonly known as *Palas*. The bark is reported to be used to treat dyspepsia, diarrhoea, dysentery, intestinal worms, bone fractures, rectal diseases, gonorrhoea, ulcers, tumours, and diabetes. The bark is also bitter, acrid, hot, oily, astringent, appetiser, anthelmintic, aphrodisiac, alterative. It is useful in abdominal tumours, colic, bleeding piles, haemorrhage, amenorrhoea and dysmenorrhoea. It lessens inflammations and biliousness. It is useful in diseases of anus and hydrocoel. Decoction of bark is given in cold cough, fever and menstrual disorders. It is also used in thermogenic, emolient, aphrodisiac, digestive, constipating and tonic, vitiated conditions pitta and kapha, anorexia, dyspepsia, diabetes.
11. **Crateva adansonii DC subsp. odora (Buch.Ham.) Jacobs.:** (Family - Capparidaceae) Commonly known as *Varun*. The bark is reported to be used as astringent, bitter, and treat dyspepsia, colic flattulence, strangury, renal and vesicle, calculi, cough, asthma, bronchitis, pruritus, skin diseases, pectoral diseases, intermitent fevers and inflammations. It promotes appetite and increases biliary secretions. It is demulcent, alterative, tonic, stomachic, laxative, diuretic, antipyretic. Useful in calculus affections and disorders of urinary organs. It is also used in snakebites, it is contraceptive, juice of bark is given to women after childbirth. Powdered bark is useful in urinary and renal troubles, gastro-intestinal and uterine affection.
12. **Diospyros melanoxylon Roxb.:** (Family-Ebenaceae) Commonly known as *Tendupatta*. Bark is astringent and styptic and used in dysentery and intermitent fevers. A paste made from the bark is applied to boil and tumours. It is also useful in acria, cooling, anti-vitiated conditions of pitta, burning sensation, inflammations, diarrhoea, leprosy, skin diseases, pruritus, dyspepsia, hemorrhage, burns, diabetes, spermatorrhoea, and vaginal disorders. The barks have astringent properties and chronic dysentery. The bark of tree posses astringent propperities and is used as decoction in diarrhoea and dyspepsia as a tonic. In dilute form it is used an astringent lotion for the eyes.
13. **Erythrina subrosa Roxb.:** (Family -Fabaceae) Commonly Known as *Pangara*. The bark is reported to be used in preparation of medicines for dysentery. The bark is astringent, febrifuge, used in anorexia, liver troubles, helminthic manifestations, inflammations, intestinal worms and obesity.

Also as collyrium in ophthalmia, as antidote to snake-bite, it promotes appetite, destroys pathogenic parasites, arrests excessive micturition and cures oedema, flatulence, colic arthritis. Decoction of bark is used in ophthalmia and other eye-diseases. Juice of bark is used to kill worms and in sores. The bark is antibilious and febrifuge useful as a collyrium in ophthalmia, the inner side of bark is smeared with ghee held over the flame, thus deposited is used in watery eyes, tinea-tarsae and purulent, conjunctivitis, being applied to the inner side and edges of the lower lid.

14. ***Ficus bengalensis* : (Family Moraceae).** Commonly known as *vad*. Bark juice or powder is effective drug for treatment of body aches, body swelling, loss of appetite. Drug is prepared by mixing stem barks of *Ficus bengalensis*, *Mangifera indica* and root barks of *Ficus religiosa* in equal proportions. Finally crushed to paste or dried to powder. Few drops of lemon juice is mixed to it. Dose 5-7 Gms of the drug is inhaled with honey or milk every morning and evening for 3-5 days for treatment of ailments like body-aches, body swelling, and loss of appetite.

15. ***Holarrhena antidysenterica*: (family-Apocynaceae).**

Commonly known as *Kuda*. Bark paste is prepared by crushing in mortar. Bark paste is effective to control diarrhoea and dysentery. Dose-about 5Gms daily in the morning for 2-3days. Dose-15-20 Gms of bark paste or power twice daily for 3-5 days in very effective.

16. ***Holoptelea integrifolia* (Roxb.) Planch. (Family-Ulmaceae)** Commonly known as *wavli*. The bark is reported to be used for treating inflammation, dyspepsia, flatulence, colic, helminthiasis, vomiting, skin-diseases, leprosy, diabetes and rheumatism. The bark is bitter, astringent, thermogenic, anti-inflammatory, digestive, carminative, laxative, depurative, anthelmintic, repulsive and urinary astringent. It is useful in vitiated conditions of pitta and cough, haemorrhage, hydrocele.

17. ***Madhuca indica* Gmel. : (family-sapotaceae).** Commonly known as *Mahua*. Its bark fried in ghee is used as drug for the treatment of piles dose recommended one teaspoon twice or thrice daily for 10-15 days.

18. ***Mangifera indica* L. : (Family- Anacardiaceae)** Commonly known *Amba*. Stem bark juice mixed with equal amount of cow urine. Very effective against abdominal pain. Dose-two teaspoon of the mixture taken early twice or thrice daily for 3-4 days; given complete relief from abdominal pain.

19. ***Melia azadirachta* L.: (Family - Meliaceae)** Commonly known as *Bakaneem*. Bark is very effective for the treatment of skin diseases; as blood purifier, as anti pyretic and also for the treatment of skin diseases; as blood purifier; as anti pyretic and also for treatment of diarrhoea in cattle. Dose: One teaspoon taken three times daily acts as a good effective anti-pyretic. It cures every type of fever including Malaria. It also acts as blood purifier. Crude bark paste is used as cream on the skin. It gives relief from various skin diseases. Bark cream applied on body is advised to keep for at least 1-2 hours and

then to bath. Bark boiled with water and bathing is recommended.

20. ***Moringa oleifera* Lamk. : (Family-Moringaceae)** Commonly known as *Shevga*. Bark is bitter in taste. Bark is an effective abortifacient being used to induce abortion. Bark is also used as a drug for the treatment against Cirrhosis of liver, heart problems, tuberculosis and malignancy.

21. ***Psidium guayava* L.: (Family-Myrtaceae)** Commonly known as *Dalimb*. Bark juice is very good astringent. Very effective against blood dysentery. Dose : Two teaspoon of the juice orally administered 3 times a day for 3-5 days. Dose : Two teaspoon of the juice orally administered 3 times a day 3-5 days cures dysentery. It is very particular medicine for blood dysentery. In case of children the dose is to be reduced proportionately.

RESULTS AND DISCUSSION

The present study reveals that the forests of Marathwada are very rich in having enormous ethno-medicinal plants. The present investigation was carried specifically targeting the pharmaceutical importance of barks of the plants. It has been observed that there are many plants growing widely in the forests of Marathwada. Whose barks have high medicinal properties and are used by the local people since long with confidence as acceptable, effective, cheap, and easily available and access with no side effect. This pharmaceutical knowledge is confined with few people who are specialized in herbal medicines. It needs proper campaigning awareness among general people for their social forestry.

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