

Ethno - medicinal plants for skin diseases and wounds from Dapoli Tehsil of Ratnagiri District, Maharashtra (India)

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ABSTRACT

Ethno-medicinal plant surveys were conducted in Dapoli Tahsil for documentation of traditional knowledge of Tribes and villagers. The present paper deals with ethno-medicinal plants used for control of skin diseases, burns, cuts and wounds. Total 65 plant species belong to 62 genera of 39 families are used in different forms to control the skin diseases, burns, cuts and wounds. Out of total 65 species, 1 species belongs to Pteridophytes, 64 species belong to 61 genera of 38 different families of Angiosperms. Out of 64 species of Angiosperms, 62 species belong to 59 genera of 36 families of Dicotyledons while 2 species belong to 2 genera of 2 families of Monocotyledons. Fabaceae is the dominant family with 5 species used followed by Combretaceae with 4 species and Lamiaceae, Asteraceae, Apocynaceae and Acanthaceae families with 3 species each are reported.

Figure : 00

References : 14

Table : 01

KEY WORDS : Ethno-medicinal, Skin diseases, Tribes, Wounds.

Introduction

Rural and Tribal people are using various plants as a source of medicines as they are living far away from recent medical facilities. The topographic, edaphic and climatic conditions of Dapoli favors for the growth and formation of thick vegetations. The climatic conditions also favors the growth of microorganisms on skin of human being as well as on the clothes, shoes, etc. This leads in formation of different skin diseases not only in human being but also in different animals in rural areas. To treat such ailments villagers and tribals have developed knowledge by using surrounding plants by experience and practice passed from generation to generation. For the documentation of such valuable traditional knowledge the present work was undertaken.

Dapoli Tahsil is totally hilly area, situated along the coast of Arabian Sea. It lies between 17°4–54" North latitude and 73°10–39" East longitude and 250 mts. altitude. The climatic conditions in the Tahsil are strongly influenced by its geographical and topographic conditions. The average maximum temperature not goes beyond 32°C and minimum temperature 20°C. The average humidity ranges from 69 to 95%. The average rainfall received was about 3800 mm/annum¹.

The pioneering work in ethno-botany of Western Ghats needs to be complete to other communities of Western Maharashtra to make a biodiversity register. The

present ethno-botanical work has been carried out on limited aspects. It needs to be comprehensive to other social, cultural and agricultural point of view. While considering the tribal population of Maharashtra, there is a more scope to study ethno-botany in all its aspects⁶.

Some workers¹⁰ reported medicinal uses of 28 plants by tribals and local practitioners of Ratnagiri districts and documented⁹ 19 pteridophytic plant species with their ethno-medicinal uses from Ratnagiri District of Maharashtra. They also stated that these plant species have more Ethno-medicinal potential.

Methodology

Ethno-medico-botanical survey was conducted in different villages of Dapoli Tahsil during 2008 to 2012 repeatedly for the documentation of traditional knowledge of Tribes and villagers. At the same time, firsthand information was gathered from the local practitioners such as Vaidos and senior villagers. The information on traditional uses of plants was elicited. The local herbalists were taken individually to the sites where they pointed out the plants which they used to cure different skin diseases. The herbalists were then interviewed on the spot by using a questionnaire¹¹. At the same time, photography of the plant specimens was done using digital camera and the plant specimens in flowering / fruiting condition were collected alongwith their field notes and other details in order to identify the plant correctly. The

TABLE-1: Botanical name, followed by Vernacular name, Family, Name of disease and mode of administration

S. N.	Botanical Name	Vernacular Name	Family	Name of disease	Mode of administration
1.	<i>Abelmoschus manihot</i> var. <i>tetraphyllus</i>	<i>Ran-bhendi</i>	Malvaceae	Burns	Root paste is made in coconut oil and applied externally
2.	<i>Acacia catechu</i>	<i>Khair</i>	Mimosaceae	Wounds	Powder of bark is applied on wound twice a day.
3.	<i>Ageratum conyzoides</i>	<i>Osadi</i>	Asteraceae	Skin diseases	The fresh leaves extract is applied on infected skin.
4.	<i>Alstonia scholaris</i>	<i>Satvin</i>	Apocynaceae	Skin diseases	½ teaspoons stem bark powder with water is applied externally till cure
5.	<i>Ampelocissus latifolia</i>	<i>Nadena</i>	Vitaceae	Wounds	The paste of the root bark is applied on wound
6.	<i>Anisomeles indica</i>	-	Lamiaceae	Skin diseases	Fresh leaf extract is applied in infected skin.
7.	<i>Argemone mexicana</i>	<i>Pivla Dhotra</i>	Papaveraceae	Scabies	The latex oozing from the broken branch is applied on the infected part at night.
8.	<i>Argyreia sericea</i>	<i>Gavel</i>	Convolvulaceae	Wounds	Cut the fresh stem and applied on the cut to stop bleeding.
9.	<i>Artocarpus heterophyllus</i>	<i>Phanas</i>	Moraceae	Skin diseases	Leaf extract applied on infected skin disorders
10.	<i>Blumea fistulosa</i>	<i>Bhamburda,</i>	Asteraceae	Wounds	Leaf juice is applied on cut portion for early cure.
11.	<i>Bolbitis prolifera</i>	<i>Bhairii warun vel</i>	Lomariopsidaceae	Wounds	The paste of rhizome is applied.
12.	<i>Calophyllum inophyllum</i>	<i>Undi</i>	Clusiaceae	Skin diseases	Oil is applied directly on wound.
13.	<i>Calycopteris floribunda</i>	<i>Ukshi, Baganvel</i>	Combretaceae	Skin diseases	Leaf paste is applied externally at evening.
14.	<i>Careya arborea</i>	<i>Kumbhi</i>	Lecythidaceae	Wounds	Paste prepared using bark of 'Kumbhi' stem and 'Ain' stem applied on cuts to stop bleeding.

15.	<i>Casearia tomentosa</i>	-	Flacourtiaceae	Ring worm	Fresh leaves paste is applied on infected part 2 times in a day.
16.	<i>Cryptolepis buchanani</i>	<i>Setakavali</i>	Periplocaceae	Wounds	The comous outgrowth of the seed is applied
17.	<i>Cullen corylifolia</i>	<i>Bavch</i>	Fabaceae	Skin diseases	The leaf paste is applied on infected parts
18.	<i>Datura inoxia</i>	<i>Dhotra, Dhothri</i>	Solanaceae	Scabies	Apply fruit powder on infected skin
19.	<i>Desmodium triflorum</i>	<i>Ran-methi</i>	Fabaceae	Wounds	The juice of leaves is applied on cut and wound
20.	<i>Entada rheedei</i>	<i>Garambi, Gaidhad</i>	Mimosaceae	Wounds	Paste of leaves is directly applied on wound as an Antiseptic.
21.	<i>Eranthemum roseum</i>	<i>Dasamuli</i>	Acanthaceae	Wounds	Root paste applied.
22.	<i>Euphorbia antiquorum</i>	<i>Nivdung</i>	Euphorbiaceae	Burning	Apply the latex of stem on burning skin 2 times a day.
23.	<i>Garuga pinnata</i>	<i>Kakad</i>	Burseraceae	Wounds	The paste of stem bark is applied on the injury
24.	<i>Girardinia diversifolia</i>	<i>Kolith</i>	Urticaceae	Scabies and skin diseases	Root juice of <i>Kolith</i> and juice of leaf of <i>Oscimum sanctum</i> is applied externally for 4 days.
25.	<i>Holigarna arnottiana.</i>	<i>Bibba</i>	Anacardiaceae	Spots on skin	Stem bark extract is applied on infected skin
26.	<i>Holigarna grahamii.</i>	<i>Hulgeri</i>	Anacardiaceae	Spots on skin	Stem bark extract is applied on infected skin.
27.	<i>Holoptelea integrifolia</i>	<i>Papda, Wavli</i>	Ulmaceae	Wounds	Juice of leaf is applied externally only once.
28.	<i>Hoya wightii</i>	<i>Dudh-yel</i>	Asclepiadaceae	Burns	Paste made from leaves is applied.
29.	<i>Hydnocarpus pentandra</i>	<i>Kadu-Kavath</i>	Flacourtiaceae	Skin disease	Seeds crushed are applied externally
30.	<i>Hygrophila schulli</i>	<i>Kolsund, Kolshind</i>	Acanthaceae	Scabies	Leaves paste is applied on skin.

31.	<i>Hyptis suaveolens</i>	<i>Ran tulas</i>	Lamiaceae	Skin diseases	Fresh leaves paste is applied on the infected skin for 8 days.
32.	<i>Impatiens balsamina</i>	<i>Terda</i>	Balsaminaceae	Burns	Fresh leaves juice is applied on burned skin
33.	<i>Jatropha curcas</i>	<i>Mogali yerand</i>	Euphorbiaceae	Wounds	Latex is applied externally only once
34.	<i>Kalanchoe pinnata</i>	<i>Panphuti, Panphui</i>	Crassulaceae	Scabies and Wounds	Fresh leaves warmed with edible oil are applied on injected part and bind with cotton cloth.
35.	<i>Lagerstroemia reginae</i>	<i>Bondara</i>	Lythraceae	Wounds	2 gm stem bark paste+2ml <i>Sesamum</i> oil are applied on cut as an antiseptic
36.	<i>Lantana camara</i> var. <i>aculeata</i>	<i>Ghaneri, Tantani</i>	Verbenaceae	Wounds	Juice of leaf is applied on cut or wound as an antiseptic
37.	<i>Mackenzia integrifolia</i>	<i>Waiti</i>	Acanthaceae	Skin diseases	Leaves juice is applied on infected skin.
38.	<i>Meyna laxiflora</i> Robyns	<i>Alu</i>	Rubiaceae	Wounds	Leaves paste is applied on the infected part.
39.	<i>Mucuna pruriens</i>	<i>Khaj-Khujalee</i>	Fabaceae	Sogginess between toes	The extract of leaves is applied to infected part after washing at bed time daily till cure.
40.	<i>Mussaenda belilla</i>	-	Rubiaceae	White spots on the skin	Fresh root extract is applied on the infected skin.
41.	<i>Ocimum tenuiflorum</i>	<i>Tulus</i>	Lamiaceae	Wounds	Leaf Paste is applied externally as an antiseptic.
42.	<i>Oroxylum indicum</i>	<i>Tetu</i>	Bignoniaceae	Wounds	Paste of stem bark is applied.
43.	<i>Pandanus odoratissimus</i>	<i>Kevda</i>	Pandanaceae	Scabies	Paste of roots and leaves are applied on the skin.
44.	<i>Passiflora foetida</i>	<i>Ran Krushna-kamal</i>	Passifloraceae	Wounds	leaf juice is applied on cut and wound.
45.	<i>Pavetta crassicaulis</i>	<i>Tudtudi, Papat</i>	Rubiaceae	Sogginess between toes	After cleaning the feet leaves extract is applied during sleeping.

46.	<i>Plumbago zeylanica</i>	<i>Chitrak</i>	Plumbaginaceae	Skin diseases	Fresh root paste is applied on infected skin.
47.	<i>Plumeria rubra</i>	<i>Pandhara chapha</i>	Apocynaceae	Wounds	The latex is directly applied on wound till cure.
48.	<i>Pongamia pinnata</i>	<i>Karanj</i>	Fabaceae	Scabies	The seed oil is applied on the infected parts of the body during evening for 7 days.
49.	<i>Pothos scandens</i>	-	Araceae	Wounds	Leaves paste is applied on cut.
50.	<i>Pterocarpus marsupium</i> Var. <i>Marsupium</i>	<i>Bivla</i>	Fabaceae	Wounds	Juice of leaf and bark is applied on cut for to stop blood flow immediately
51.	<i>Securinega leucopyrus</i>	<i>Pandhar Phali</i>	Euphorbiaceae	Burns	Dried bark is burned and paste of ash with coconut oil is applied on burned skin.
52.	<i>Semecarpus anacardium</i> Var. <i>anacardium</i>	<i>Bibba</i>	Anacardiaceae	Wounds	Warm seed oil is applied on cuts and wounds as an antiseptic.
53.	<i>Sida cordata</i>	-	Malvaceae	Wound	Leaves paste is applied on the wounds
54.	<i>Smilax ovalifolia</i>	<i>Ghotvel</i>	Smilacaceae	Wounds	The paste of leaf is applied externally till cure.
55.	<i>Sopubia delphinifolia</i> Var. <i>delphinifolia</i>	<i>Dudhali</i>	Scrophulariaceae	Wounds	Fresh leaf extract is applied on cuts.
56.	<i>Stereospermum chelenoides</i>	<i>Padal</i>	Bignoniaceae	Wounds	The fresh leaf paste is applied on the cut.
57.	<i>Tamarindus indica</i>	<i>Chinch</i>	Caesalpiniaceae	Burns	Ash of leaves with coconut oil is applied on burned skin.
58.	<i>Terminalia cuneata</i>	<i>Arjun sadada</i>	Combretaceae	Burns and wound	Ash of leaves with coconut oil is applied on burned skin.
59.	<i>Terminalia elliptica</i>	<i>Ain</i>	Combretaceae	Wounds	Paste of bark is applied externally on the cut, it act as anticoagulant & antiseptic.
60.	<i>Terminalia paniculata</i>	<i>Kinjal</i>	Combretaceae	Wounds	The paste of bark or leaf is applied till cure

61.	<i>Tinospora cordifolia</i>	<i>Gulvel</i>	Minispermaceae	Wound	Stem juice is applied on wounds.
62.	<i>Trichosanthes tricuspiculata</i>	<i>Kaundal</i>	Cucurbitaceae	Wounds and burns	The stem paste is directly applied on wounds and burns as an antiseptic.
63.	<i>Tridax procumbens</i>	<i>Yekdandi</i>	Asteraceae	Wounds	Leaf juice is directly applied once a day till cure
64.	<i>Woodfordia fruticosa</i>	<i>Dhayati</i>	Lythraceae	Wounds and Burns	Burning: Paste made with ash of leaves and flowers and Coconut oil is applied on burned skin. Wound: Leaves tied on the wounds.
65.	<i>Wrightia tinctoria</i> ssp. <i>tinctoria</i>	<i>Kala kuda</i>	Apocynaceae	Wounds	The latex is directly applied on wound till cure.

information obtained was crosschecked from other herbalists. The collected plants specimens were identified with the help of available literature^{3-5,7,8,12-14}. The collected plant specimens were preserved⁶. The preserved plant specimens were compared with standard herbarium of BSI, Western circle, Pune.

The field data have been collected on plant parts used in preparation of drugs, local name, its dosage and administration (Table-1). The information on medicinal uses of plants has been recorded on the basis of knowledge of 3 Herbalists and observations from different localities and had similar comments about the medicinal use.

Observations

The reported ethno-medicinal plants used by Tribals and Villagers are arranged in alphabetical order of Botanical name, followed by Vernacular name, Family, Name of disease, and mode of administration (Table.1)

Result and Discussion

Total 65 plant species belonging to 62 genera of

39 families are used in different forms to control the skin diseases, burns, cuts and wounds by villagers and tribal people from study area. Out of total 65 species, 1 species belongs to Pteridophytes, 64 species belong to 61 genera of 38 different families of Angiosperms. Out of 64 species of Angiosperms, 62 species belong to 59 genera of 36 families of Dicotyledons while 2 species belong to 2 genera of 2 families of Monocotyledons. Fabaceae is the dominant family with 5 species used followed by Combretaceae with 4 species and Lamiaceae, Asteraceae, Apocynaceae, Acanthaceae families with 3 species each are reported. It is also observed that, 33 plant species leaves, followed by 16 plant species stem or stem bark followed by 7 plant species roots and 4 plant species seeds are used to control of skin problems.

Rural and aboriginal population is using various plants as a source of medicine as they are far away from medical facilities². But it is found that, the people not only from rural area but also from urban area are using the herbs for effective and complete control of skin diseases without side effects.

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