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Full Length Research Paper

Traditional Phyto-Pharmaceutic Remedies against Skin Diseases in Shevgaon Tahasil of Ahmednagar District (M.S.) India

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Abstract
An extensive field surveys were arranged in Shevgaon tahasil areas of Ahmednagar district to document traditional herbal remedies used against cut and wounds. The information is collected during the period from 2008 to 2010, from the local informants through verbal interviews via informal ways. The paper focuses on the ethno-medicinal uses of 43 plant species belonging to 37 genera from 27 families used against certain kind of skin diseases and related disorders among the local inhabitants.

Keywords: *Herbal remedy, Shevgaon tahasil, Traditional knowledge.*

Introduction

Human interactions with the surrounding environment, especially plants have been started since the ancient period due to which the modern medicines have been arrived at the end of 20th century. Being a part and parcel of the nature, man has found busy in utilizing the wild plants for certain needs and necessities such as food, medicine, fodder, agricultural tools, house construction etc. It has been realized in recent years that most of the plants were in use by the traditional healers, hakims and ethnic societies of the world either as a food or as herbal drugs in the ancient time. Since the last three to four decades, due to the recent explorations considerable progress has been made in the field of ethno-medicinal remedies.

Use of these plants and their parts had contributed so much to the field of ethno-medicinal science by fulfilling the social and cultural needs of the rural, aboriginal and tribal people. These plant based herbal drugs are relatively safe **[1],** affordable, easily available in the market and are manufactured with the traditional eco-friendly methods. They can work selectively without disturbing the other system as compared to modern synthetic drugs.

Study area

Being a beautiful landscape, Shevgaon is one of the tahasil in the Ahmednagar district famous for the rich ethno-floristic diversity. It is situated on the north-east west side of the district at a distance of 26 km. It is located between 18°16'33"N - 19°35'58"N latitude and 73°86'68"E - 77°68'38"E longitude. The area under the study is occupied by 33% of mixed type of vegetation and experiences an average rainfall of 221.8 cm/yr **[2].** It has remained inhabited to certain extent by the native inhabitants for certain needs and necessities for curing specific livestock ailments.

The information from the inhabitants is documented from the study area to understand importance and significance of the native ethno-flora in the life of local inhabitants.

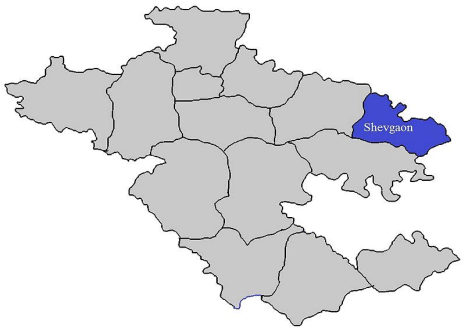

Figure 1- Map of the study area

Review of literature

Recent interest in ethno-medicinal explorations has increased due to the work of **[3-8].**

Methodology

Frequent field visits were arranged in the study areas during the period from pre-monsoon of 2008 to post-monsoon of 2010 to collect the ethno-medicinal data on uses of the wild ethno-flora by the local inhabitants. The plant specimens were collected by knowing their vernacular names through the help of knowledgeable informants as per guidelines **[9-10].** The information was confirmed through the traditional healers through verbal and informal interviews.

The voucher specimens were prepared, tagged and confirmed by referring the standard floras **[11-13] and** preserved as per plan **[14]** in the Botany Dept of the college for future study.

Enumeration/Result

The plant species enumerated here are arranged alphabetically according to botanical name with family (in parenthesis) followed by vernacular name, plant part used and traditional medicinal uses. Unknown or less known ethnobotanical uses are marked with an asterisk (*) sign.

Table: 1-Detailed analysis of the plant species used in skin diseases cure:

S. No.	Botanical Name with familly	Local name	Occurence	Habit	Plant Part	Herbal formulations for treatment
•	*Manilkara hexandra* (Roxb.) Dubard. (Sapotaceae)	Khirani	Rare	Tree	Fruit	*Aatpav fresh or young fruits are crushed in a half cup of coconut (*Cocos nucifera*) oil to obtain fine paste which is applied externally twice a day up to 13-15 days to cure ringworm and scabies.
•	*Sapindus laurifolius* Vahl. (Sapindaceae)	Ritha	Rare	Tree	Fruit	A cup of juice from young fruits in luke warm water is mixed with 2-3 tsp of korphad (*Aloe vera*) leaf juice and resultant preparation is applied on the scalp twice or thrice in a week before bath up to 6-8 successive weeks to clear dandruff.
•	*Solanum torvum* Sw. (Solanaceae)	Ran-vange	Introduced plant species	Herb	Fruit	1-2 unripe fruits are crushed in a cup of sheep's urine with 1-2 tsp of lasun (*Allium sativum*) cloves extract to obtain paste which is applied externally on the affected skin twice a day up to 8-10 days to cure small pox.
•	*Ziziphus xylopyra* (Retz.)Willd. (Rhamnaceae)	Ghotbar	Rare	Tree	Fruit	Fine paste from a 2-3 tolas fresh and young fruits in a cupful goat's urine is mixed with little quantity of hing (*Ferula asafoetida*) powder and 1-2 tsp of Kate ringani (*Solanum xanthocapum*) fruits and resultant preparation is applied topically on the affected skin regions twice a day up to 8-9 days to clear Shingles (Herpes zoaster).
•	*Euphorbia nerifolia* L. (Euphorbiaceae)	Shingoti	Common	Shrub	Exudates (latex)	*Fine paste from 2-3 tsp of latex and equal quantity of dried Papaya(*Carica papaya*) latex is mixed in a half cup of coconut oil and the mixture is applied externally at an interval of 15-20 minutes until total relief from scorpion bite.
•	*Ficus racemosa* L. (Moraceae)	Umbar	Common	Tree	Exudates (latex)	*Specific quantity of latex mixed is with a pinch of common salt and same paste is applied on the body region twice a day up to certain days to cure shingles (Herpis zoaster).
•	*Ficus religiosa* L. (Moraceae)	Pimpal	Common	Tree	Exudates (latex)	*A cupful of plant latex is boiled with 1-2 tsp of turmeric powder in a cup of coconut oil to obtain homogeneous paste which is applied externally twice a day for 8-9 days to cure ringworm.
•	*Agave americana* Linn. (Liliaceae)	Ghaypat	An exotic ornamental	Herb	Leaf	Paste from a handful of fresh leaves in luke warm coconut (*Cocos nucifera*) oil is applied externally once a day in the early morning for 10-12 days to get rid of mange in goats and cattle.
•	*Argemone mexicana* L. (Papaveraceae)	Bilayat	Common	Herb	Leaf	An extract from 2-3 tolas of young and fresh leaves is mixed with 1-2 tsp of turmeric powder in a cup of Mahua (*Madhuca indica*) oil and the paste is applied topically once a day for 8-10 days to cure scabies, ringworm and psoriasis.

• *Aristolochia bracteolata* Lam. (Aristolochiaceae)	Gindhan	Common	Herb	Leaf	2-3 tolas fresh leaves are crushed in a half cup of goat's urine with a tsp of sunth (*Zingiber officnale*) rhizome extract and the paste is applied externally twice a day up to 5-8 days to cure acne and eczema.
• *Azadirachta indica* A. Juss. (Meliaceae)	Kadu-nimb	Common	Tree	Leaf	Fine paste from aatpav fresh and healthy leaves in coconut (*Cocos nucifera*) water is applied externally once a day for 8-10 days to cure certain kind of skin diseases such as ringworm, scabies and chicken pox.
• *Bacopa monnieri* (L.) Penn. (Scrophulariaceae)	Nir brahmi	Rare	Herb	Leaf	*An extract from a handful of fresh leaves in a glass of cow's urine is mixed with 1-2 tsp of honey to obtain paste which is applied externally once a day in early morning up to 20-22 days to cure shingles.
• *Balanites agyptiaca* (L.) Del. (Balanitaceae)	Hingan	Common	Shrub	Leaf	A handful of fresh leaves are crushed with a pinch of common salt in a cup of coconut (*Cocos nucifera*) oil and the formulation is applied two to three times in a day up to 15-18 days to cure skin burns and measles.
• *Cleome gynandra* L. (Capparaceae)	Pandhri tilwan	Common	Herb	Leaf	Fine paste from a handful of fresh leaves with haldi (*Curcuma domestica*) powder and common salt (a tsp each) in little amount of coconut (*Cocos nucifera*) oil is applied on boils.
• *Convolvulus arvensis* L. (Convolvulaceae)	Chandvel	Common	Herb	Leaf	A handful of fresh leaves are boiled in sufficient quantity of goat's urine with a pinch of common salt, 1-2 tsp of haladi (*Curcuma domestica*) powder and some Lasun (*Allium sativum*) cloves extract to obtain paste which is applied once or twice in a week on the scalp to cure dandruff and folliculitis.
• *Curcuma anguistata* Valet. Syn.*C. longa* L. (Zingiberaceae)	Ambe-halad	Cultivated crop plant	Herb	Leaf	*A fine paste made from a handful of fresh leaves and adrak (*Zingiber officinale*) rhizome in a half cup of Mohri (*Brassica compestris*)seed oil is applied superficially around the neck once daily for 9-12 days to cure heel cracks, toes, lips cracks.
• *Jatropha curcas* Linn. (Euphorbiaceae)	Parshi Erand	Common	Shrub	Leaf	Paste from a handful of tender and healthy leaves are crushed with 4-6 lasun (*Allium sativum*) cloves in a cup of goat's urine is applied externally on the affected skin regions twice a day up to 6-8 days to cure ringworm and scabies.
• *Jatropha gossypifolia* L. (Euphorbiaceae)	Mogali erand	Common	Shrub	Leaf	*An extract from 8-10 fresh leaves are crushed with a pinch of sulphur powder in a cupful of coconut (*Cocos nucifera*) oil to get a homogeneous paste which is mashed on the affected skin regions twice a day up to 8-10 days to cure scleroderma.
• *Lawsonia inermis* L. (Lythraceae)	Mehandi	Rare	Shrub	Leaf	A cupful of extract from fresh and young leaves in water is mixed with equal quantity of amla (*Phyllanthus emblica*) fruit juice and this mixture is kept over night burried in an earthen pot. On next day morning same formulation is applied topically on the scalp twice in a week up to 15-21 days to stop premature graying of hairs and alopecia.
• *Leonotis nepetifolia* (L.) R.Br. (Acanthaceae)	Mathyasul	Rare	Herb	Leaf	Poultice specific quantity of fresh and healthy leaves is boiled with 1-2 tsp of haldi (*Curcuma domestica*) powder and a pinch of common salt in sufficient quantity of Til (*Sesamum indicum*)seed oil and above formulation is applied externally on

					affected skin twice a day up to 12-15 days to cure folliculitis.
• *Lepidagathis cristata* Willd. (Acanthaceae)	Kumbha	Rare	Herb	Leaf	A handful of fresh leaves are crushed with 1-2 tsp of haldi (*Curcuma domestica*) powder and 1-2 tsp of Kanda bulb (*Allium cepa*) extract in a cup of Mohri (*Brassica compestris*) oil is boiled and above preparation is applied externally twice a day up to 10-12 days on the infectious skin region to cure ringworm and eczema.
• *Mukia maderaspatana* (L.) Roem. (Cucurbitaceae)	Chirmuth	Rare	Climber	Leaf	An extract from a handful of fresh and tender leaves are boiled in a half cup of pig ghee and above formulation is applied on the scalp once a day up to 10-12 days at night to control dandruff and also to stop premature graying of hairs.
• *Pongamia pinnata* (L.) Pierre. (Fabaceae)	Karanj	Common	Tree	Leaf	A handful of fresh leaves and equal quantity of kadu neem (*Azadirachta indica*) leaves are crushed in a cupful of cow's urine with a pinch of haldi (*Curcuma domestica*) powder to obtain fine paste which is applied on the affected skin thoroughly twice a day up to 10-12 days to cure itching, scabies and ringworm.
• *Spheranthus indicus* L. (Asteraceae)	Gorakh mundi	Rare	Herb	Leaf	*Poultice from a handful fresh leaves is boiled with 3-4 lasun (*Allium sativum*) cloves and 1-2 tsp of sunth (*Zingiber officinale*) powder in a cupful of goat's milk and above formulation is applied externally twice a day up to 12-15 days to cure psoriasis.
• *Triumfetta rhomboidea* Jacq. (Tiliaceae)	Zinjurdi	Common	Herb	Leaf	*A handful of fresh leaves are crushed with a pinch of common salt and a tsp of sunth (*Zingiber officinale*)powder in a half cup of Til (*Sesamum indicum*) seed oil to obtain fine paste which is applied topically on the affected skin twice a day up to 10-12 days to cure chicken pox.
• *Aloe vera* (L.) Burm. (Liliaceae)	Korphad	An exotic ornamental	Herb	Exudates Mucilage)	Two-three tsp of mucilage from the leaves is mixed in 1-2 tsp of cow's urine with two to three drops of lemon (*Citrus limon*) juice and above formulation is applied topically twice or thrice a day for 10-12 days to cure skin burns and itching.
• *Bosswellia serrata* Roxb.ex.Coleb. (Lythraceae)	Salai	Rare	Tree	Exudates (Resin)	2-3 tsp of fresh resin is mixed with equal quantity of kadu neem (*Azadirachta indica*) leaves extract in a cup of cow's urine and above preparation is applied externally twice a day up to 12-15 days to cure sores, skin burns and itching.
• *Abelmoschus mannihot* (L.) Medik (Malvaceae)	Ranbhendi	Common	Herb	Root	paste from a handful of fresh and healthy roots with a pinch Haldi (*Curcuma domestica*) powder and equal amount of sunth (*zingiber offcinale*) powder in a cup of cow's urine is mashed twice a day up to 8-12 days to cure skin burns.
• *Abutilon indicum* (L.) Sweet. (Malvaceae)	Petari	Common	Herb	Root	*Paste from young and healthy roots in sufficient quantity of water applied topically on the affected body regions once a day up to 12-15 days to cure ringworm

• *Adiantum capillus-veneris* L. (Adiantaceae)	Hansraj	Rare	Fern	Root	An extract from root powder is mixed in 1-2 tsp of Lasun (*Allium sativum*) cloves extract, a tsp of Haldi (*Curcuma domestica*) powder and same quantity of sunth (*Zingiber officinale*) powder and the paste is rubbed thoroughly twice a day up to 10-12 days to get rid of pimples,warts and lesions in girls attaining adultery.
• *Amberboa ramosa* (Roxb.)Jafri. (Asteraceae)	Katmanda	Rare	Herb	Root	Fine paste from a handful of fresh roots in a cup of rice cooked water is mixed with 1-2 tsp of Lasun (*Allium sativum*) extract and a pinch of haldi (*Curcuma domestica*) powder is applied externally on the skin twice a day for 10-12 days to cure skin inflammation and irritation due to eczema.
• *Cassia occidntalis* L. (Caesalpinaceae)	Kasundi	Common	Herb	Root	A handful of fresh root pieces are crushed with a tsp of Haldi (*Curcuma domestica*) powder and a pinch of common salt in sufficient amount of Til (*Sesamum indicum*) oil to form a paste which is applied topically twice a day for 10-12 days to cure skin burns and itching.
• *Clitoria ternatea* var *alba* Linn. (Fabaceae)	Safed Gokarn	An exotic ornamental	Shrub	Root	A handful of fresh roots are crushed with of haladi (*Curcuma domestica*) powder, sunth (*Zingiber officinale*) powder (1 tsp each) in a cup of sheep's urine and the preparation is massaged on face thoroughly once a day at night before sleep up to 10-12 days to clear acne, pimples and scars.
• *Ipomoea nil* (L.) Roth. (Convolvulaceae)	Nili phungali	Common	Herb	Root	*Paste from a handful of fresh roots pieces in a half cup of Til (*Sesamum indicum*) oil is applied on the skin of feet and toes twice a day up to 12-15 days to cure crypto-coccosis.
• *Abelmoschus moschatus* Medik. (Malvaceae)	Kastur bhendi	Rare	Herb	Seed	*Fine paste from a handful of fresh and young seeds is mixed with 1-2 mase of lasun (*Allium sativum*) seeds extract in a cup of mustard (*Brassica compestris*) seed oil is applied externally on the body twice a day for 8-9 days to cure small pox.
• *Cassia fistula* L. (Caesalpinaceae)	Bahava	Common	Tree	Seed	*A handful of young seeds are crushed with 1-2 tsp of haldi (*Curcuma domestica*) powder in a half cup luke goat's milk and above paste is applied topically on the body region twice a day against herpes zoaster (shingles).
• *Semecarpus anacardium* L.f. (Anacardiaceae)	Bibba	Rare	Tree	Seed	The oil extracted from burnt dried seeds is mixed in little quantity of bees wax and above preparation is applied externally on cracked heels, toes and fingers once daily at night for 9-12 days to heal.
• *Cissus quadrangularis* L. (Vitaceae)	Kandvel	Rare	Shrub	Stem	Young stem pieces with a pinch of common salt are crushed in sufficient amount of coconut (*Cocos nucifera*) oil and the paste applied against folliculitis.
• *Bridelia retusa* (L.), Spreng. (Euphorbiaceae)	Asan	Rare	Shrub	Stem (bark)	A handful of fresh stem bark is boiled in a cup of kadu neem (*Azadirachta indica*) seed oil and same preparation is recommended for taking a bath once or twice in a week up to 6-8 weeks to cure measles and scleroderma.

• *Cissus repanda* Vahl. (Vitaceae)	Ghetuli	Common	Shrub	Stem (bark)	*Poultice from fresh and young stem bark pieces in luke warm water with a pinch of Haldi (*Curcuma domestica*) powder is applied topically at the site of wasp bite at an interval of 15-20 minutes until relief from skin burns and irritation due to wasp stings.
• *Ficus arnottiana* (Miq.) Miq. (Moraceae)	Pair	Rare	Tree	Stem (bark)	*Aatpav shade dried stem bark powder, equal quantity of bhui ringni (*Solanum surattense*) fruit powder are crushed with a pinch of hing (*Ferula asafoedita*) powder in a cup of cow's urine and the formulation is applied topically once a day at night up to 16-18 days to cure chicken pox.
• *Madhuca latifolia* (Roxb.) Chevalier. (Sapotaceae)	Moha	Rare	Tree	Stem (bark)	An extract from fresh stem bark pieces is mixed in a cupful of mustard (*Brassica compestris*) seed oil and equal quantity of lemon (*Citrus limon*) fruit juice with a pinch of common salt and the formulation is applied externally twice a day up to 6-8 days to cure small pox.
• *Morinda citrifolia* L. (Rubiaceae)	Bartondi	Rare	Tree	Stem (bark)	1-2 tsp of the shade dried stem bark powder is boiled in a cupful of coconut (*Cocos nucifera*) oil with a few drops of the Ransher (*Sarcostema viminale*) latex and above formulation is applied externally on the affected skin regions once a day up to 12-15 days to cure sores and boils.

Abbreviations: tsp-tablespoon, 1 masa-1 gm, tola-10 gm, aatpav-100 gm, A handful-250 gm, 1 cup-100 ml, half litre -500 ml.

Discussion

During the field visits (table:1) 43 plant species belonging to 37 genera from 27 families used against certain kind of skin diseases and related disorders by the local inhabitants have been reported from the study areas. These plants have been utilized by the local inhabitants in curing cut and wounds in traditional ways. Some of the taxa i.e *Ficus arnottiana* (Pair), *Cissus repanda* (Ghetuli),*Cissus quadrangularis* (Kandvel), *Abelmoschus moschatus* (Kastur bhendi), *Amberboa ramosa* (Katmanda), *Madhuca latifolia* (Moha), *Morinda citrifolia* (Bartondi), *Bosswellia serrata* (Salai), *Spheranthus indicus* (Gorakh mundi), *Pongamia pinnata* (Karanj), *Abutilon indicum* (Petari), *Abelmoschus mannihot* (Ranbhendi), *Aloe vera* (Korphad), *Bridelia retusa* (Asan) and *Semecarpus anacardium* (Bibba) possess better potential for economic exploitation.

Since all these plant species are in use in more or less proportion throughout the world, have wide scope for bio-prospecting. Therefore it is our prime duty should be to protect, conserve and maintain it in a proper way for our future studies.

Table: 2- Plant parts used in number of plant species with their percentage:

Out of the plant species studied (table:2), majority of the preparations (i.e.13) are from leaves (37.14%) followed by exudates in five plant (14.29%),roots and stem and fruits parts in four plants (11.43% each), rhizomes and seed parts in two plants each (5.71% each)and whole plant parts in one plants (2.86%),found to have uses in cut and wounds treatments.

Habit	Herb	Shrub	Tree	Climber	Fern
No. of plants species	19	09	13	01	01
% of plant species used	44.19	20.93	30.23	2.33	2.33

Table: 3- Habit wise analysis of the plants with their percentage:

Out of the plant species studied (table:3),majority of the plants i.e nineteen plants are herbs (44.19%) followed by thirteen plants trees (30.23%), nine plants shrubs (20.93%), one plant climber(2.33%) and remaining one plant each found climber and fern (2.33% each).

Plant part used	Root	Leaf	Seed	Stem	Fruit	Rhizome	Exudates	Whole plant
No. of plant sp.	04	13	02	04	04	02	05	01
% of parts used	11.43	37.14	5.71	11.43	11.43	5.71	14.29	2.86

Table: 4- Occurrence wise analysis of the plants with their percentage:

Out of the 43 plant species,(table:4),nineteen plant species each are common as well as rare (44.19%)which are followed by three plant species an exotic ornamental (6.98 %) and remaining one plant each found cultivated crop plant and introduced plant species (2.33 %).

Occurrence	Rare	Common	Cultivated crop plant	Introduced plant species	An exotic ornamental
No. of plants species	19	19	01	01	03
% of plant species used	44.19	44.19	2.33	2.33	6.98

Conclusion

The area under the study is enriched by great ethno-medicinal knowledge hidden among the traditional healers, knowledgeable local informants, vaidyas and hakims reside in the nearby villages which are transmitted to them from their forefathers through oral communications in an informal ways from their forefathers **[15].**

There are a number of plants which are used traditionally against certain kind of skin diseases and related disorders by the local rural and tribal populace have not been validated until now keeping the traditional claims in mind. Most of the phyto-pharmacological reports of herbal extracts need scientific screening. Most of their traditional claims about the plants use in certain kind of skin diseases and disorders treatments involves application of fresh plant parts, their paste and extracts in water or oil. One has to remember that there are a number of parameters which are involved in the treatment of skin diseases and related disorders needs to be evaluated scientifically to understand exact role of the plant part in the traditional system of medicine which will help in strengthening the ethno-medicinal and ethno-pharmacological claims on national and international level.

Most of the traditional wealth of knowledge in India is eroding at faster rate due to loss of the ancient traditions and culture as they are mostly oral **[16].** Due to their continuous and progressive exposure to modernization, there is serious threat about extinction of such rich heritage of information in the coming time. Effort should be initiated for the documentation and computerization of useful medicinal plants and their traditional knowledge **[17].**

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