Ethnomedicine for Scabies by the Bagata tribe of Andhra Pradesh

Sandhya Sri, B.[1] and Seetharami Reddi, T.V.V.[2*]

[1]Department of Botany, Govt. Degree College, Anandapuram, Visakhapatnam 530052
[2] Department of Botany, Andhra University, Visakhapatnam 530003

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Abstract: The paper documents 31 species of plants covering 29 genera and 24 families used by the Bagata tribe of Andhra Pradesh for the treatment of scabies. Habit-wise analysis showed the dominance of trees with 13 species followed by herbs (8 spp.), climbers (6 spp.) and others. Morphological analysis showed the maximum utilization of leaf in 14 practices followed by stem bark (6), seed (5) and others. Fifteen practices were found to be new.

Keywords: Skin disease, Bagata, Conservation Visakhapatnam, Andhra Pradesh

I. INTRODUCTION

As per 2011 census, the total population of Bagata tribe in Andhra Pradesh state is 132,577 (5.04% to total tribal population) constituting the second largest community inhabiting mostly Visakhapatnam district (130,537), and sparsely Vizianagaram (1498) and East Godavari (542) districts. Visakhapatnam district is situated in the north eastern part of Andhra Pradesh. It lies between 17° -34' 11" and 18° – 32' 57" in northern latitude and 81°1 -51' 49" and 83º-16' 9'' in eastern longitude. Though there are publications on ethnomedicine of the Bagata tribe exclusive studies on scabies are not available necessitating the present study.

II. MATERIALS AND METHODS

The ethnomedicinal data presented here are the outcome of a series of intensive field studies conducted during 2009-2011 in 44 interior tribal pockets with good forest cover and 60 *vaidyas* were consulted. Each field trip was of 5-8 days duration covering all seasons of an year. After establishing good rapport with the tribe, the utility of plants, detailed methods of uses were documented and cross-checked for authenticity. Voucher specimens were prepared and deposited in the Herbarium of the Department of Botany, Andhra University, Visakhapatnam (AUV).

III. ENUMERATION

The plants are arranged in an alphabetical order with botanical name followed by family, vernacular name, English name, locality, collector, voucher specimen number, method, mode and duration of the treatment. Plants and practices marked with an asterisk (*) are considered to be new or less known.

Adiantum lunulatum Burm. f. Adiantaceae VN: Challi E: Walking maidenhair fern Modaput BSS 9687

*Fried leaves are made into powder and mixed with castor oil and gently applied with a quill of the cock, till cure.

Aerva lanata (L.) Juss. Amaranthaceae VN: Konda pindi E: Mountain knotgrass Matsyagedda BSS 9647

*Leaf powder is sprayed on the affected areas.

Amaranthus spinosus L. Amaranthaceae VN: Mulla thotakura E: Prickly amaranth Sukuru BSS 752

*The root paste is applied on the wounds.

Argyreia nervosa (Burm. f.) Bojer Convolvulaceae VN: Samudra paala E: Elephant creeper Munchingput BSS 9680

*Leaf paste is applied on the affected areas.

Aristolochia bracteolata Lam. Aristolochiaceae VN: Gadida gadapa E: Bracteated birth wort Kotaguruva BSS 9679

Fresh leaf juice or leaf paste is applied on the affected areas.

Canna indica L. Cannaceae VN: Metta thamara E: Indian reed Vantamarri BSS 9702

*Tuber paste is applied on the affected areas.

Cascabela thevetia (L.) Lippold Apocynaceae VN: Paccha ganneru E: Lucky nut tree Madagada BSS 9768

Handful of leaves are pounded with two spoonful of fresh turmeric powder and the paste is applied on the affected areas for half an hour twice a day till cure.

Ceiba pentandra (L.) Gaertn. Bombacaceae VN: Tella buruga E: White silk cotton Gamparai BSS 9644

***S**tem bark paste is applied on the affected areas.

Coccinia grandis (L.) Voigt Cucurbitaceae VN: Kakidonda E: Little gourd Kotagaruvu BSS 9525

Leaves with those of *Ocimum gratissimum* are crushed and applied on the affected areas.

Cocculus hirsutus (L.) W. Theob. Menispermaceae VN: Dusara teega E: Broom creeper Chinamodhugaputt BSS 9792

Leaf paste mixed with water is applied on the affected areas.

Curculigo orchioides Gaertn. Hypoxidaceae VN: Nela tadi E: Black muscale Modaputt BSS 9853

*Tuber powder is applied on the affected areas till cure.

Entada rheedei Spreng. Mimosaceae VN: Adavichinta E: Saint Thomas bean Minumuluru BSS 9604

*Seed paste is applied on the affected areas.

Erythrina variegata L. Fabaceae VN: Badita E: Indian coral tree Mampa BSS 9648

Stem bark paste is applied on the affected areas.

Ficus hispida L.f. Moraceae VN: Boddamarri E: Wild fig Kotagurava BSS 9665

Milky latex is applied on the affected areas.

Haldina cordifolia (Roxb.) Ridsdale Rubiaceae VN: Bandari E: Haldu Ganjigedda BSS 9599

*Stem bark decoction is used for washing affected parts and paste is also applied.

Helianthus annuus L. Asteraceae VN: Suryakanti E: Common sunflower Dabbalapadu BSS 9844

*Leaf paste is applied on the scabies of the leg affected with filariasis.

Holoptelea integrifolia (Roxb.) Planch. Ulmaceae VN: Nemali chettu E: South Indian elm Laksmipuram BSS 9837

Stem bark paste is boiled and the filtrate is applied on the affected areas.

Ipomoea hederifolia L. Convolvulaceae VN: Kasirathnalu E: Star Ipomoea Kappada BSS 9835

*Seed paste is applied on the affected areas.

Ipomoea nil (L.) Roth Convolvulaceae VN: Katuka ginjalu E: Pharbitis seeds Chintalaveedhi BSS 9833

Seed paste is applied on the affected areas.

Madhuca longifolia (L.) J.F. Macbr. Sapotaceae VN: Ippa E: South Indian mahua tree Devarapalli BSS 9603

Unripe fruit paste is applied on the affected areas.

Nyctanthes arbor–tristis L. Oleaceae VN: Parijatam E: Night jasmine Chedalpadu BSS 9831

Dried seeds are burnt into ash and mixed with a pinch of camphor and coconut oil is applied on the affected areas.

Ocimum basilicum L. Lamiaceae VN: Jetti mokka E: Sweet basil Kodugula BSS 9589

Leaves are crushed into paste and applied on the affected skin.

Ocimum gratissimum L. Lamiaceae VN : Rama tulasi E: Large basal Nakkalaput BSS 9540

*Leaves are crushed with those of *Coccinia grandis* and the paste is applied on the affected parts.

Pongamia pinnata (L.) Pierre Fabaceae VN: Ganuga E: Indian beech tree Chinamodhugaputt BSS 9808

Leaves or seeds ground into paste are applied on the affected areas.

Semecarpus anacardium L. f. Anacardiaceae VN: Nalla jeedi E: Marking nut Sukuru BSS 9804

*Two gm of stem bark powder is administered orally on empty stomach in the morning and evening for five days.

Senna occidentalis (L.) Link Caesalpiniaceae VN: Tentapu E: Negro coffee Kujjali 9591

Root is pound with sour buttermilk and applied on the affected areas.

Sphaeranthus indicus L. Asteraceae VN: Bhatti poolu E: East Indian globe thistle Ebulam BSS 9610

Flowers and leaves ground with four pepper grains are applied on the affected areas.

Soymida febrifuga (Roxb.) A. Juss. Meliaceae VN: Sami chettu E: Rohan tree Nittaputt BSS 9607

*Stem bark powder mixed with water is applied on the affected areas.

Tamarindus indica L. Caesalpiniaceae VN: Chintha E: Tamarind Doddavaram BSS 9635

*Tender leaves are crushed and applied on the affected areas and sit for some time under the Sun.

Thespesia populnea (L.) Sol. Malvaceae VN: Gangaraavi E: Bhendi tree Chettraiput BSS 9511

Young unripe fruits are crushed and juice is applied on the affected areas.

Zanthoxylum armatum DC. Rutaceae VN: Konda kasivinda E: Wing leaf Labbangi BSS 9505

Leaves mixed with turmeric are ground into paste and applied on the affected areas.

IV. RESULTS AND DISCUSSION

The paper deals with 31 species, of plants covering 29 genera and 24 families used by the Bagata tribe of Andhra Pradesh for the treatment of scabies. Convolvulaceae is the dominant family with three species followed by Fabaceae, Caesalpiniaceae, Asteraceae, Lamiaceae, Amaranthaceae (two spp. each) and others with one species each. Habit-wise analysis showed

the dominance of trees with 13 species followed by herbs (eight spp.), climbers (six spp.) and shrubs (four spp.). Morphological analysis showed the maximum utilization of leaf in 14 practices followed by stem bark (six), seed (five), root, tuber and fruit (two each) and latex and flower (one each). Fifteen practices were found to be new (Jain, 1991; Kirtikar and Basu, 2003; Jain and Jain, 2016). Plants used for similar purpose in different parts of India are *Abutilon indicum* by the *Tharus* of Bahraich district, Uttar Pradesh (Singh and Maheshwari, 1989); *Ageratum conyzoides, Curculigo orchioides* by *Naga* tribes in Nagaland (Changkija, 1999); *Aegle marmelos, Calotropis gigantea, Mallotus philippensis, Pongamia pinnata,Thysanolaena maxima* in Kalahandi district of Orissa (Nayak et al., 2004); *Pongamia pinnata* in South Travancore, southern peninsular India (Jeeva et al., 2007); *Curculigo orchioides* by Konda Reddi tribes of in East Godavari, West Godavari and Khammam districts of Andhra Pradesh (Raju et al., 2010) and *Pongamia pinnata* by Koya, Lambada, Gond/Naikpod, Yerukula, Nayak and Konda Reddi tribes of Khammam district of Andhra Pradesh (Manjula and Reddi, 2015). *Amaranthus spinosus* by Konda dora, Konda kammara, Konda kapu, Konda reddi, Koya dora, Manne dora, Valmiki tribes of East Godavari district, Andhra Pradesh (Suneetha and Reddi, 2015), *Argyreia nervosa, Curculigo orchioides, Pongamia pinnata, Zanthoxylum armatum* by Gadaba, Khond, Porja and Savara primitive tribal groups of Visakhapatnam district, Andhra Pradesh (Rao and Reddi, 2016).

V. CONCLUSION

The Bagata tribal people are largely dependent on the traditional healthcare system. Traditional beliefs in the area also have their own unintentional role in the conservation and sustainable utilization of medicinal plants. Hence, efforts must be taken to protect these species in study area by involving the local communities in preservation and conservation. The information gathered from the Bagata tribes of Andhra Pradesh for the treatment of scabies is useful for further research in the field of ethnomedicine and pharmacology.

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