10.5005/jp-journals-10059-0040

ORIGINAL ARTICLE

Exploration of Polyherbal Formulations Used by Folk Healers of Andaman and Nicobar Islands, India

[1]Santosh S Mane, [2]Sinimol T Peethambaram, [3]Pravin R Masram, [4]Chinmay Rath, [5]Susmitha Bonthu, [6]Sugriv K Gaur, [7]Srikanth Narayanam, [8]Joseph GV Rattna

ABSTRACT

Introduction: Various communities settled in Andaman and Nicobar Islands along with native tribes still possess a rich treasure of traditional medicinal knowledge. It is very necessary to document their indigenous knowledge of health and healthcare practices before they become used to the modern medicine and forgot to use native plants in their day-to-day practice. In the traditional system of medicine, plant-based medications are mostly used since time immemorial. This knowledge of the drug, drug preparations either from single or combination of numerous plants, i.e., poly herbalism orally descended from generations to generations uninterruptedly.

Objectives: Documentation of the polyherbal (compound) formulations practiced by the native of Andaman and Nicobar Islands, India.

Materials and methods: The team of Regional Research Centre of Ayurveda, Port Blair conducted 23 periodical surveys visiting 75 different forest beats of Andaman and Nicobar Islands during 2013 to 2016, and local traditional folk healers were also interviewed as per the structured questionnaire based on ethno-medicinal survey protocol.

Observations: Sixty-nine folklore claims related to compound formulation was registered during surveys; out of which maximum, i.e., 12 claims were for treatment of fever (*Jwara*) and 7 for pain in the abdomen (*Udarashoola*). The plants *Annona squamosa* L. and *Senna occidentalis* (L.) Link. Syn. *Cassia occidentalis* Link. were used as an ingredient in 12 formulations to cure a maximum number of ailments. Fresh leaves were mostly used in preparing the compound formulation (92.42%), and medicines were mostly used in the form of *Swarasa* (39.13%) and followed by *Kalka* (30.43%).

Conclusion: Native folk healers of Andaman and Nicobar Islands are using a wide variety of Ayurvedic compound formulation so further well planned pharmacological, toxicological and clinical studies required to confirm the efficacy of these folklore claims to develop new formulations.

Keywords: Andaman and Nicobar, Folk healers, Polyherbal formulation, Tribes.

How to cite this article: Mane SS, Peethambaram ST, Masram PR, Rath C, Bonthu S, Gaur SK, Narayanam S, Rattna JGV. Exploration of Polyherbal Formulations Used by Folk Healers of Andaman and Nicobar Islands, India. J Drug Res Ayurvedic Sci 2018;3(2):85-95

Source of support: Nil

Conflict of interest: None

[1-3]Research Officer (Ayurveda), [4,6]Research Officer (Botany), [5]Senior Research Fellow (Botany), [7]Deputy Director General, [8]Director

[1]Collaborative Research Center for Veterinary Ayurveda, Ludhiana, Punjab, India

[2,3]Regional Research Center of Ayurveda, Port Blair, Andaman and Nicobar Islands, India

[4,5,7]Central Council for Research in Ayurvedic Sciences, New Delhi, India

[6]M.S. Regional Ayurveda Research Institute for Endocrine Disorders, Jaipur, Rajasthan, India

[8] Homeopathic Pharmacopoeia Laboratory, Ministry of AYUSH, Government of India, New Delhi, India

Corresponding Author: Santosh S Mane, Research Officer (Ayurveda), Collaborative Research Center for Veterinary Ayurveda, Ludhiana, Punjab, India, Phone: +91-1612414032, e-mail: vdmaheshmane@gmail.com

INTRODUCTION

India, because of its unique variety of geographical and climatic factors, has a rich and varied flora of medicinal plants, out of 15000 plant species, about 2000 plants are known for medicinal properties, and some of them are used as home remedies in the rural and remotest parts of the country.[1]

The Andaman and Nicobar group of Islands at the juncture of the Bay of Bengal and the Andaman sea, and are a union territory of India.[2] The flora of these islands is unique in India showing affinities with Assam and Burma in the north, Thailand and Malaysia in the East and Sumatra and Java in the South. There are 2200 species of vascular plants known from these Islands; only about 40% are common with Burma and India, about 50% show affinities with the flora of Malaysia and Indonesia. As per the studies did by botanical survey of India, remaining 10% of the flora, i.e., about 220 species is endemic to these islands.[3] These islands are the abode of various migrated communities from mainland India along with six native tribe's *viz*. the Great Andamanese, the Ongies, the Jarawas, the Sentinelese, the Shompens and the Nicobarese. Among them, Nicobarese tribes are the numerically largest tribe living in various groups of islands and differ themselves both culturally and linguistically.[4]

In Ayurveda, drug formulation is based on two principles, i.e., use of single medicinal plant and use of more

than one plant; the latter one is known as poly herbal formulations (PHFs). Even though in an individual plant, active phytochemical constituents are well established, but they usually present in minute quantity and many times, they are insufficient to achieve the desired therapeutic effects. The scientific studies revealed that when plants of varying potency combined show the greater result in comparison to the individual use of the plant and this phenomenon of positive herb-herb interaction known as synergism. Certain pharmacological actions of active constituents of herbals are significant only when potentiation by that of other plants, but not evident when used alone. It is believed that a multiplicity of factors and complications cause diseases in most of the cases, leading to both visible and invisible symptoms. Here, a combination of herbals may act on multiple targets at the same time to provide a thorough relief. Because of synergism poly herbalism confers some benefits which are not available in a single herbal formulation. It is evident that a better therapeutic effect can reach with a single multi-constituent formulation. For this, a lower dose of the herbal preparation would need to achieve desirable pharmacological action and thus reducing the risk of deleterious side effects. Besides this, PHFs bring to improve convenience for patients by eliminating the need for taking more than one different single herbal formulation at a time, which indirectly leads to better compliance and therapeutic effect. All these benefits have resulted in the popularity of PHF in the market when compared to single herbal formulation.[5]

More than 905 medicinal plants are being sourced from forests and other wild habitats. Ironically, dwindling of natural habitats has resulted in a sharp decline in the population of several medicinal plant species of high potential. Moreover, there is a rapid erosion of folklore culture due to fast changing lifestyle under the influence of modernization. Thus, it is high time to document the traditional knowledge lying concerned among ethnic communities before it lost forever. To meet the demand of ever-increasing population, there is a need for scientific validation of folk claims so that new drugs can be developed.[6] This study is distinctive attempt in this direction by giving emphasis on documentation of compound formulation practiced by the tribe and other folk healers of Andaman and Nicobar Islands, India.

Study Area

The Andaman and Nicobar Islands are a group of islands at the juncture of the Bay of Bengal and the Andaman Sea and comprises two distinct island groups, the Andaman Group of Islands and Nicobar group of Islands separated by the 10° channel with the Andaman to the north, and the Nicobar to the south.[7] It has a total area of 8249 sq. km of which is approximately 87% or 7171 sq. km is under forest. According to the 2011 Census, the total population of Andaman and Nicobar Islands is 3.81 lakhs.[8] Aboriginal tribes and migrant settlers are an inhabitant of these Islands, and they are mostly dependent on their traditional healthcare practices.

MATERIALS AND METHODS

Twenty-three periodical survey visits to 75 forest beats of different islands of Andaman and Nicobar Islands were carried out during 2013 to 2016 with prior permission from local authorities. Folk healers of visited area was identified and interviewed with a structured questionnaire as per the standard format of local health traditional (LHTs) documentation formulated by Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Government of India, New Delhi to obtain the data on medicinal plants which are being used to treat numerous diseases.

OBSERVATIONS

Details of folklore claims recorded in various disease conditions are arranged in Table 1 Botanical name, part used, and type of therapeutic preparation. Secondly, in total 93 species reported for 35 folklore claims are arranged as per the botanical name, family, *Sanskrit* name, local name, and their frequency of use in Table 2. Moreover, scrutinized data about the therapeutic preparation, number of ingredients used in a formulation and plant part used is mentioned in Tables 3 to 5 respectively.

RESULTS

Overall 69 folklore claims of compound herbal preparation were recorded during surveys in which, 93 species of medicinal plants were used to treat 35 different diseases (Tables 1 and 2). Out of these 93 species, 71 species has been mentioned in Ayurveda. Maximum numbers of claims i.e., 12 were recorded for fever; 7 for pain in the abdomen , followed by 5 for jaundice, 4 for blood pressure and 3 for headache. The plant *Annona squamosa* L. and *Senna occidentalis* (L.) Link. Syn. *Cassia occidentalis* Link. were used in the maximum formulations and to cure maximum number of ailments, i.e., 12 ailments. Fresh leaves were mostly used in preparing the compound formulation (92.42%) (Table 5). The therapeutic formulations were mostly in the form of *Swarasa* (39.13) followed by *Kalka* (30.43%) (Table 3). Maximum 12 ingredients were used to formulate a compound formulation (Table 4).

Table 1: Folklore claims of polyherbal formulation as per the disease condition

S. No	*Name of disease*	*Formula No.*	*Botanical name*	*Parts used*	*Therapeutic preparation*
1.	*Jwara* (fever)	1.	1. *Lepisanthes rubiginosa* (Roxb.) Leenh.	Leaf	*Kalka*
			2. *Spondias pinnata* (L.f.) Kurz.	Leaf	
			3. *Breyniavitis –idaea* (Burm. F.) C.E.C.Fis.	Leaf	
			4. *Cocos nucifera* L.(Young fruit)	Oil	
		2.	1. *Macaranga andamanica* Kurz.	Leaf	*Kalka*
			2. *Alstonia macrophylla* G.Don.	Leaf	
			3. *Vernonia patula* (Dryand.) Merr.	Leaf	
			4. *Ocimum tenuiflorum* L.	Leaf	
			5. *Achyranthes aspera* L	Leaf	
			6. *Terminalia catappa* L.	Leaf	
		3.	1. *Terminalia catappa* L.	Leaf	*Kalka*
			2. *Ocimum canum* Sims.	Leaf	
			3. Feather of white hen	-	
		4.	1. *Senna occidentalis* (L.) Link.	Leaf	*Swarasa*
			2. *Physalis minima* L.	Leaf	
			3. *Colubrina asiatica* (L.) Brongn.	Leaf	
		5.	1. *Pongamia pinnata* (L.) Pierre.	Leaf	*Swarasa*
			2. *Astrodendrum malabaricum* Dennst.	Leaf	
		6.	1. *Phyllanthus amarus* Sch.	Leaf	*Swarasa*
			2. *Colubrina asiatica* (L.) Brongn.	Leaf	
			3. *Lepisanthes rubiginosa* (Roxb.) Leenh.	Leaf	
			4. *Ganophyllum falcatum* Blume.	Leaf	
			5. *Premna corymbosa* Rottler & Willd.	Leaf	
			6. *Lygodium circinatum* (Burm.f.) Sw.	Leaf	
		7.	1. *Senna occidentalis* (L.) Link.	Leaf	*Swarasa*
			2. *Annona squamosa* L.	Leaf	
			3. *Ganophyllum falcatum* Blume.	Leaf	
			4. *Phyllanthus amarus* Schumach. & Thonn.	Leaf	
			5. *Mentha piperita* L.	Leaf	
		8.	1. *Jasminum syringifolium* Wall.& G.Don	Leaf	*Kwatha*
			2. *Premna corymbosa* Rottler & Willd.	Leaf	
			3. *Annona squamosa* L.	Leaf	
			4. *Breyniavitis –idaea* (Burm. F.) C.E.C.Fis.	Leaf	
			5. *Senna occidentalis* (L.) Link.	Leaf	
		9.	1. *Clerodendrum viscosum* f. *rubrum* Moldenke. 2. *Cocos nucifera* L. (Oil)	Leaf	*Kalka*
1.1	*Bala-jwara*	10.	1. *Sida acuta* Burm .f.	Leaf	*Kwatha*
			2. *Physalis minima* L.	Leaf	
			3. *Senna occidentalis* (L.) Link.	Leaf	
		11.	1. *Physalis minima* L.	Leaf	Oil
			2. *Senna occidentalis* (L.) Link.	Leaf	
			3. *Breyniavitis –idaea* (Burm. F.) C.E.C.Fis.	Leaf	
			4. *Colubrina asiatica* (L.) Brongn.	Leaf	
			5. *Cocos nucifera* L.	Oil	
		12.	1. *Leea indica* (Burm.f.) Merr.	Leaf	*Swarasa*
			2. *Tabernaemontana divaricata* (L.) R.Br.	Leaf	
			3. *Leea aequata* L	Leaf	
2.	*Udarashoola* (abdominal pain)	13.	1. *Abrus precatorius* L.	Leaf	*Swarasa*
			2. *Ganophyllum falcatum* Blume.	Leaf	
			3. *Tabernaemontana divaricata* (L.) R.Br.	Leaf	
		14.	1. *Premna corymbosa* Rottler & Willd.	Leaf	*Swarasa*
			2. *Phyllanthus amarus* Schumach. & Thonn	Leaf	
			3. *Jasminum syringifolium* Wall. & G.Don.	Leaf	
		15.	1. *Tabernaemontana divaricata* (L.) R.Br.	Leaf	*Kwatha*
			2. *Alstonia macrophylla* G.Don.	Leaf	
			3. *Lepisanthes rubiginosa* (Roxb.) Leenh	Leaf	
		16.	1. *Jasminum syringifolium* Wall. & G.Don.	Leaf	*Kwatha*
			2. *Clerodendrum paniculatum* L.	Leaf	
			3. *Annona squamosa* L.	Leaf	
			4. *Glochidion calocarpum* Kurz.	Leaf	
			5. *Alstonia macrophylla* G.Don.	Leaf	
		17.	1. *Tabernaemontana divaricata* (L.) R.Br.	Leaf	*Kwatha*
			2. *Pajanelia longifolia* (Willd.) K. Schum.	Leaf	
			3. *Ricinus communis* L.	Leaf	
			4. *Planchonia andamanica* King.	Leaf	
			5. *Antidesma acidum* Retz.	Leaf	
			6. *Glochidion calocarpum* Kurz	Leaf	
			7. *Annona squamosa* L.	Leaf	
		18.	1. *Morinda citrifolia* L.	Leaf	*Swarasa*
			2. *Lepisanthes rubiginosa* (Roxb.) Leenh.	Leaf	
			3. *Colubrina asiatica* (L.) Brongn.	Leaf	

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S. No	Name of disease	Formula No.	Botanical name	Parts used	Therapeutic preparation
3.	*Kamala* (jaundice)	19.	1. *Phyllanthus amarus* Schumach. & Thon.	Whole plant	*Swarasa*
			2. *Senna occidentalis* (L.) Link.	Leaf	
			3. *Annona squamosa* L.	Leaf	
		20.	1. *Lepisanthes rubiginosa* (Roxb.) Leenh.	Leaf	*Swarasa*
			2. *Ganophyllum falcatum* Blume.	Leaf	
			3. *Kaempferia galanga* L.	Leaf	
		21.	1. *Scoparia dulcis* L.	Leaf	*Swarasa*
			2. *Imperata cylindrica* (L.) Raeusch.	Leaf	
		22.	1. *Phyllanthus fraternus* Webst.	Leaf	*Swarasa*
			2. *Vernonia cinerea* (L.) Less.	Leaf	
		23.	1. *Phyllanthus fraternus* Webster	Leaf	*Swarasa*
			2. *Ocimum canum* Sims.	Leaf	
		24.	1. Phyllanthus amarus Schumach. & Thonn.	Leaf	*Swarasa*
			2. *Senna occidentalis* (L.) Link.	Leaf	
			3. *Momordica charantia* L.	Leaf	
			4. *Jasminum syringifolium* Wall. &. G.Don.	Leaf	
4.	*Raktachapa* (blood pressure)	25.	1. *Senna occidentalis* (L.) Link.	Leaf	*Swarasa*
			2. *Jasminum syringifolium* Wall. & G.Don.	Leaf	
			3. *Annona squamosa* L.	Leaf	
			4. *Ocimum tenuiflorum* L.	Leaf	
		26.	1. *Alstonia macrophylla* G.Don.	Leaf	*Swarasa*
			2. *Premna corymbosa* Rottler & Willd.	Leaf	
			3. *Clerodendrum paniculatum* L.	Leaf	
			4. *Annona squamosa* L.	Leaf	
		27.	1. *Jasminum syringifolium* Wall. & G.Don.	Leaf	*Choorna*
			2. *Lepisanthes rubiginosa* (Roxb.) Leenh.	Leaf	
			3. *Clerodendrum paniculatum* L.	Leaf	
			4. *Phyllanthus amarus* Schumach. & Thonn.	Leaf	
			5. *Ocimum tenuiflorum* L.	Leaf	
5.	*Shirahshoola* (headache)	28.	1. *Tabernaemontana alternifolia* L.	Leaf	*Kalka*
			2. *Leea indica* (Burm.f.) Merr.	Leaf	
			3. *Morinda citrifolia* L.	Leaf	
		29.	1. *Citrus medica* L.	Leaf	*Kalka*
			2. *Miliusa andamanica* Finet & Gagnep.	Leaf	
			3. *Ricinus communis* L.	Leaf	
		30.	1. *Hibiscus rosa- sinensis* L.	Leaf	*Kalka*
			2. *Mussaenda frondosa* L.	Leaf	
			3. *Lannea coromandelica* (Houtt.) Merr.	Leaf	
6.	*Kandu* (itching)	31.	1. *Acalypha indica* L.	Leaf	*Kalka*
			2. *Curcuma longa* L.	Tuber	
			3. *Cocos nucifera* L.	Oil	
		32.	1. *Urena lobata* L.	Leaf	*Kalka*
			2. *Claoxylon indicum* (Reinw. ex Blume) Hassk.	Leaf	
7.	*Raktatisara* (dysentery)	33.	1. *Phyllanthus amarus* Schumach. & Thonn	Leaf	*Kalka* or *Choorna*
			2. *Ricinus communis* L.	Leaf	
			3. *Morinda citrifolia* L.	Leaf	
		34.	1. *Jasminum syringifolium* Wall. & G.Don.	Leaf	*Swarasa*
			2. *Leea aequata Linn.* L	Leaf	
			3. *Annona squamosa* L.	Leaf	
			4. *Phyllanthus amarus* Schumach. & Thon.	Leaf	
			5. *Colubrina asiatica* (L.) Brongn.	Leaf	
8.	*Angamarda* (body ache)	35.	1. *Ganophyllum falcatum* Blume	Leaf	*Kalka*
			2. *Jasminum syringifolium* Wall & G.Don.	Leaf	
			3. *Pongamia pinnata* (L.) Piere.	Leaf	
			4. *Curcuma longa* L.	Leaf	
			5. Coconut oil	Oil	
		36.	1. *Morinda citrifolia* L.	Leaf	*Kalka*
			2. *Morinda pubescens* Sm.	Leaf	
			3. *Synedrella nodiflora* (L.) Gaertn.	Leaf	
			4. *Curcuma longa* L.	Tuber	
			5. *Kyllinga brevifolia* L.	Leaf	
			6. *Rubus moluccanus* L.	Leaf	
			7. *Euphorbia atato* G. Forst.	Leaf	
			8. *Scaevola taccada* (Gaertn.) Roxb.	Leaf	
			9. *Antidesma diandrum* (Roxb.) B.Heyne ex Roth	Leaf	
			10. *Hoya parasitica* Wall.	Leaf	
			11. *Glochidion calocarpum* Kurz.	Leaf	
			12. *Clerodendrum paniculatum* L.	Leaf	

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S. No	Name of disease	Formula No.	Botanical name	Parts used	Therapeutic preparation
9.	*Netra Lalima* (redness of eye)	37.	1. *Morinda citrifolia* L. 2. *Sida acuta* Burm. f.	Leaf Leaf	*Swarasa*
		38.	1. *Morinda citrifolia* L. 2. *Sida acuta* Burm. f.	Leaf Leaf	*Swarasa*
		39.	1. *Pandanus odorifer* (Forssk.) Kuntze. 2. *Ipomoea pes-caprae* (L.) R. Br. 3. *Euphorbia atoto* G. Forst.	Leaf Leaf Leaf	*Kalka*
10.	*Manasa Vyadhi* (psychological disorder)	40.	1. *Zingiber capitatum* Roxb. 2. *Cajanus cajan* (L.) Millsp. 3. *Curcuma longa* L. 4. *Kaempferia galanga* L. 5. *Lygodium circinatum* (Burm.f.) Sw. 6. *Aerva lanata* (L.) A.Juss. 7. *Caesalpinia crista* L. 8. *Clerodendrum paniculatum* L. 9. *Phyllanthus amarus* Schumach. & Thonn. 10. *Senna occidentalis* (L.) Link.	Leaf Leaf Leaf Leaf Leaf Leaf Leaf Leaf Leaf Leaf	*Swarasa*
11.	*Sarpa Damsha* (snake bite)	41.	1. *Sida acuta* Burm.f. 2. *Colubrina asiatica* (L.) Brongn. 3. Toddy 4. Castor	Leaf Leaf - Oil	*Kalka*
		42.	1. *Premna corymbosa* Rottler & Willd. 2. *Clerodendrum paniculatum* L. 3. *Pongamia pinnata* (L.) Pierre. 4. *Momordica charantia* L.	Leaf Leaf Leaf Leaf	*Kwatha*
12.	*Asthi Bhanga* (bone fracture)	43.	1. *Annona* squamosa L. 2. *Premna corymbosa* Rottler & Willd. 3. *Morinda citrifolia* L. 4. *Areca catechu* L. 5. *Curcuma longa* L. 6. *Cocos nucifera* L. 7. *Sea water* 8. *Pajanelia longifolia* (Willd.) K. Schum.	Leaf Leaf Leaf Leaf Leaf Leaf - Bark	*Kalka*
		44.	1. *Morinda citrifolia* L. 2. *Ricinus communis* L. 3. *Senna occidentalis* (L.) Link. 4. *Tabernaemontana divaricata* (L.) R.Br. 5. *Alstonia macrophylla* G.Don 6. *Ipomoea pes-caprae* (L.) R. Br. 7. *Toddy*	Leaf Leaf Leaf Leaf Leaf Leaf -	Oil
13.	*Pakshaghata* (paralysis)	45.	1. *Jasminum syringifolium* Wall. & G.Don. 2. *Premna corymbosa* Rottler & Willd. 3. *Pajanelia longifolia* (Willd.) K. Schum. 4. *Annona squamosa* L. 5. *Colubrina asiatica* (L.) Brongn. 6. *Tamarindus indica* L. 7. *Glochidion calocarpum* Kurz.	Leaf Leaf Leaf Leaf Leaf Leaf Leaf	*Kwatha*
		46.	1. *Datura metel* L. 2. *Calotropis gigantea* (L.) Dryand. 3. *Vinca rosea* L. 4. *Aegle marmelos* (L.) Correa 5. *Vitex negundo* L. 6. *Alternanthera sessilis* (L.) DC. 7. *Aloe vera* L. 8. *Allium sativum* L.	Leaf Leaf Leaf Leaf Leaf Leaf Leaf Leaf	Oil
14.	*Sandhivata* (joint pain)	47.	1. *Mallotus tanarius* (L.) Muell. Arg. 2. *Morinda citrifolia* L. 3. *Breyniavitis –idaea* (Burm. F.) C.E.C.Fis. 4. *Clerodendrum paniculatum.* L.	Leaf Leaf Leaf Leaf	Water

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S. No	Name of disease	Formula No.	Botanical name	Parts used	Therapeutic preparation
15.	*Vidradhi* (abscess)	48.	1. *Annona muricata* L. 2. Pig fat	Leaf -	*Kalka*
16.	*Saraktta-Mutrapravrutti* (haematuria)	49.	1. *Allophylus cobbe* (L.) Reusch. 2. *Hibiscus tiliaceus* L. 3. *Astrodendrum malabaricum* Dennst.	Leaf Leaf Leaf	*Swarasa*
17.	*Mutraghata* (dysuria)	50.	1. Ipomoea Spp. 2. *Hibiscus tiliaceus* L. 3. *Astrodendrum malabaricum* Dennst. 4. *Tabernaemontana divaricata* (L.) R.Br.	Leaf Leaf Leaf Leaf	*Swarasa*
18.	*Vibandha* (constipation)	51.	1. *Ricinus communis* L. 2. *Tabernaemontana divaricata* (L.) R.Br.	Leaf Leaf	*Choorna*
19.	*Ashmari* (renal calculi)	52.	1. *Musa paradisiaca* L. 2. *Urena lobata* L. 3. *Claoxylon indicum* (Reinw.ex Blume) Hassk.	Leaf Leaf Leaf	*Kalka*
		53.	1. *Physalis minima* L. 2. *Senna occidentalis* (L.) Link.	Leaf Leaf	*Kwatha*
20.	*Dantashoola* (toothache)	54.	1. *Alstonia macrophylla* G.Don. 2. *Tabernaemontana divaricata* (L.) R.Br. 3. *Moringa oleifera* Lam.	Leaf Leaf Leaf	*Swarasa*
21.	*Tvak Roga* (skin diseases)	55.	1. *Claoxylon indicum* (Reinw.ex Blume) Hassk 2. *Lawsonia inermis* L. 3. *Vernonia patula* (Dryand.) Merr. 4. *Wedelia calendulacea* Less. 5. *Cocos nucifera* L.	Leaf Leaf Leaf Leaf Oil / Water	Oil
22.	*Aruchi* (anorexia)	56.	1. *Vernonia patula* (Dryand.) Merr. 2. *Melastoma malabathricum* L.	Leaf Leaf	*Swarasa*
23.	*Rakta Chardi* (hematemesis)	57.	1. *Phyllanthus amarus* Schumach. & Thonn. 2. *Tabernaemontana divaricata* (L.) R.Br. 3. *Ganophyllum falcatum* Blume. 4. *Ricinus communis* L.	Leaf Leaf Leaf Leaf	*Swarasa*
24.	*Galashoola* (throat pain)	58.	1. *Ocimum tenuiflorum* L. 2. *Cleome viscosa* L. 3. *Zingiber officinale* Rosc. 4. *Citrus limon* (L.) Osbeck. 5. *Citrus medica* L. 6. Coconut oil 7. *Allium sativum* L.	Leaf Leaf Leaf Leaf Leaf - bulb	Oil
25.	*Sootika Swasthya* (post-natal care)	59.	1. *Tabernaemontana divaricata* (L.) R.Br. 2. *Mallotus tanarius* (L.) Muell. Arg. 3. *Miliusa andamanica* Finet & Gagnep. 4. *Clerodendrum paniculatum* L. 5. *Ricinus communis* L. 6. *Cocos nucifera* L.	Leaf Leaf Leaf Leaf Leaf Oil	Oil
26.	*Sthaulya* (obesity)	60.	1. *Jasminum syringifolium* Wall. & G.Don. 2. *Premna corymbosa* Rottler & Willd. 3. *Breyniavitis –idaea* (Burm. F.) C.E.C.Fis. 4. *Annona squamosa* L. 5. *Ganophyllum falcatum* Blume. 6. *Pongamia pinnata* (L.) Pierre.	Leaf Leaf Leaf Leaf Leaf Leaf	*Kwatha*
27.	*Kasa and Pratishaya* (cough - cold)	61.	1. *Senna occidentalis* (L.) Link. 2. *Urena lobata* L.	Leaf Leaf	*Kwatha*
28.	*Swasa* (Dyspnoea)	62.	1. *Piper betel* L. 2. *Areca catechu* L.	Leaf Leaf	*Kalka*
29.	*Karnashoola* (otalgia)	63.	1. *Allium sativum* L. 2. *Sida acuta* Burm.f.	Leaf Leaf	Oil
30.	*Tvak Roga* (eczema)	64.	1. *Cocos nucifera* L. (Oil) 2. *Sida acuta* Burm. f.	Oil Leaf	Oil
31.	*Netraghata* (ocular injury)	65.	1. *Clerodendrum infortunatum* (L.) Vent. 2. *Leea aequata* L.	Leaf Leaf	*Swarasa*
32.	*Vrana* (cut and wound)	66.	1. *Ficus hispida* L.f. 2. *Urena lobata* L.	Leaf Leaf	*Kalka*
33.	*Urahshoola* (pain in chest)	67.	1. *Jatropha curcas* 2. *Cocos nucifera* L.	Leaf Oil	*Kalka*
34.	*Sthana Arbuda* (breast tumor)	68.	1. *Argyreia nervosa* (Burm.f.) Bojer. 2. *Curcuma longa* L.	Leaf Leaf	*Kalka*
35.	*Daurbalya* (weakness/ debility)	69.	1. *Scoparia dulcis* L. 2. *Zingiber officinale* Rosc.	Leaf Leaf	*Swarasa*

Table 2: Distribution of 93 species used in poly herbal formulations with botanical name, family, Sanskrit name, reference in Ayurveda, local name and frequency of their use in formulation

Sr. No	Botanical name	Family	Sanskrit name	Local name	Frequency of use
1.	*Achyranthes aspera* L	Amaranthaceae	*Apamarga*[9,10]	Konnapech	1
2.	*Aerva lanata (*L.) A.Juss.	Amaranthaceae	*Pattura*[11]		1
3.	*Alternanthera sessilis* (L.) DC.	Amaranthaceae	*Matsyakshi*[9]		1
4.	*Lannea coromandelica* (Houtt.) Merr.	Anacardiaceae	*Ajashringi*[12]		1
5.	*Spondias pinnata* (L.f.) Kurz.	Anacardiaceae	*Amrata*[9,10]		1
6.	*Annona muricata* L.	Annonaceae			2
7.	*Annona squamosa* L.	Annonaceae	*Sitaphala*[13]		12
8.	*Miliusa andamanica* Finet & Gagnep.	Annonaceae			2
9.	*Alstonia macrophylla* G.Don	Apocynaceae		Janthaala mara[13]	6
10.	*Hoya parasitica* Wall.	Apocynaceae			1
11.	*Tabernaemontana alternifolia* L.	Apocynaceae	*Kampillakah*[12]		1
12.	*Tabernaemontana divaricata* (L.) .Br.	Apocynaceae	*Nandi*[12]		10
13.	*Vinca rosea* L.	Apocynaceae	*Sadampuspa*[12]		1
14.	*Areca catechu* L.	Arecaceae	*Puga*[1]	Supadi	2
15.	*Cocus nucifera* L.	Arecaceae	*Narikel*[10]		9
16.	*Calotropis gigantea* (L.) Dryand.	Asclepiadaceae	*Rajarka*[13]		1
17.	*Ageratum conyzoides* L.	Compositae	*Visamustih*[12]		1
18.	*Synedrella nodiflora* (L.) Gaertn.	Compositae		Urehahun	1
19.	*Vernonia cinerea* (L.) Less.	Compositae	*Sahadevi*[12]		1
20.	*Vernonia patula* (Dryand.) Merr.	Compositae		Hatolik	3
21.	*Wedelia calendulacea* Less.	Compositae	*Pita-Bringaraja*[12]		1
22.	*Pajanelia longifolia* (Willd.) K. Schum.	Bignoniaceae		Tumah	3
23.	*Caesalpinia crista* L.	Caesalpiniaceae	*Putikaranja*[11]		1
24.	*Cleome viscosa* L.	Capparaceae	*Karnasphota*[12]	Kulching	1
25.	*Argyreia nervosa* (Burm.f.) Bojer.	Convolveluceae	*Bastantri*[12]		1
26.	*Ipomoea pes-caprae* (L.) R. Br.	Convolvulaceae	*Sagaramekhala*[12]	Lanan Kap	2
27.	Ipomoea Spp.	Convolvulaceae		Tinyuk	1
28.	*Momordica charantia* L.	Cucurbiataceae	*Karavallaka*[9]	Karela	2
29.	*Kyllinga brevifolia* L.	Cyperaceae		Takuho	1
30.	*Acalypha indica* L.	Euphorbiaceae	*Haritmanjiri*[14]		1
31.	*Antidesma acidum* Retz. Syn. *Antidesma diandrum* (Roxb.) B.Heyne ex Roth	Euphorbiaceae	*Matha*[15]		2
32.	*Breynia vitis–idaea* (Burm. F.) C.E.C.Fis.	Euphorbiaceae		Tilong Cho	5
33.	*Claoxylon indicum* (Reinw. ex Blume) Hassk.	Euphorbiaceae		Singaro	3
34.	*Euphorbia atato* G. Forst.	Euphorbiaceae			2
35.	*Glochidion calocarpum* Kurz	Euphorbiaceae		Hinyonys	4
36.	*Jatropha curcas* L.	Euphorbiaceae	*Dravanti*[12]	Poi pong	1
37.	*Macaranga andamanica* Kurz.	Euphorbiaceae			1
38.	*Mallotus tanarius* (L.) Muell. Arg.	Euphorbiaceae		Tam fato	2
39.	*Phyllanthus amarus* Schumach. & Thonn.	Euphorbiaceae	*Bhumyaamlaki*[13]		10
40.	*Phyllanthus fraternus* G.L.Webster	Euphorbiaceae	*Tamalki*[1]		2
41.	*Ricinus communis* L.	Euphorbiaceae	*Eranda*[1]		8
42.	*Cajanus cajan* (L.) Millsp.	Fabaceae	*Adhaki*[11,16]	Pihem	1
43.	*Pongamia pinnata* (L.) Pierre	Fabaceae	*Karanja*[1]	Chuva	4
44.	*Senna occidentalis* (L.) Link. Syn. *Cassia occidentalis*	Fabaceae	*Kasamarda*[12]	Maharoaan	12
45.	*Scaevola taccada* (Gaertn.) Roxb.	Goodeniaceae		Tufool	1
46.	*Mentha piperita* L.	Lamiaceae	*Pudiana*		1
47.	*Ocimum canum* Sims.	Lamiaceae	*Aranyatulsi*[12]		1
48.	*Ocimum tenuiflorum* L.	Lamiaceae	*Tulasi*[9,15]		4
49.	*Planchonia andamanica* King.	Lecythidaceae			1
50.	*Leea aequata* L	Vitaceae	*Kakajangha*[12]	Kin hut	3
51.	*Leea indica* (Burm.f.) Merr.	Vitaceae	*Chatri*[12]	Tokin tinu	2
52.	*Tamarindus indica* L.	Leguminosae	*Chincha*[15]		1
53.	*Allium sativum* L.	Liliaceae	*Lashun*[12]	Garlic	1
54.	*Aloe vera* L.	Liliaceae	*Ghrutakumari*[1]		1
55.	*Lygodium circinatum* (Burm.f.) Sw.	Lygodiaceae		Kimrun	2
56.	*Lawsonia inermis* L.	Lythraceae	*Madyantika*[15]		1
57.	*Abrus precatorius* L.	Malvaceae	*Gunja*[1,9]	Gunchi	1

Contd....

Contd....

Sr. No	Botanical name	Family	Sanskrit name	Local name	Frequency of use
58.	*Hibiscus rosa- sinensis* L.	Malvaceae	*Japa*[11]	Gudahal	1
59.	*Hibiscus tiliaceus* L.	Malvaceae		Tan ku	2
60.	*Sida acuta* Burm .f.	Malvaceae	*Bala*[12]	Tanok Temuyo	5
61.	*Urena lobata* L.	Malvaceae	*Atibala*[12]	Kashinroh	4
62.	*Melastoma malabathricum* L.	Melastomataceae	*Tinisah*[12]	Chumkot	1
63.	*Ficus hispida* L.f.	Moraceae	*Phalgu*[11]	Tasamu	1
64.	*Moringa oleifera* Lam.	Moringaceae	*Shigru*[9,15]	Sajana	1
65.	*Musa paradisiaca* L.	Musaceae	*Kadali*[11,15]		1
66.	*Jasminum syringifolium* Wall & G. on.	Oleaceae		Panrapo	10
67.	*Pandanus odorifer* (Forssk.) Kuntze Syn. *Pandanus odoratissimus* L.f.	Pandanaceae	*Ketaki*[12,14]		1
68.	*Piper betel* L.	Piperaceae	*Nagavalli*[11]	Taku cho	1
69.	*Imperata cylindrica* (L.) Raeusch.	Poaceae	*Darbha*[11]		1
70.	*Colubrina asiatica* (L.) Brongn.	Rhamnaceae		Inmoi	7
71.	*Morinda citrifolia* L	Rubiaceae	*Achchhuka*[12]	Lirong	9
72.	*Morinda pubescens* Sm.	Rubiaceae	*Akshikiphala*[12]		1
73.	*Mussaenda frondosa* L.	Rubiaceae	*Sriparnah*[12]		1
74.	*Aegle marmelos* (L.) Correa	Rutaceae	*Bilva*[1]		1
75.	*Citrus limon* (L.) Osbeck.	Rutaceae	*Nimbu*[15]	Limong	1
76.	*Citrus medica* L.	Rutaceae	*Bijapura*[11]	Limong	2
77.	*Allophylus cobbe* (L.) Reusch.	Sapindaceae		Tumha na	1
78.	*Ganophyllum falcatum* Blume	Sapindaceae		SANUK	7
79.	*Lepisanthes rubiginosa* (Roxb.) Leenh.	Sapindaceae		Chamrev	6
80.	*Scoparia dulcis* L.	Plantaginaceae		Mithi patti	2
81.	*Datura metel* L.	Solanaceae	*Dhatura*[10,15]		1
82.	*Physalis minima* L.	Solanaceae	*Chirapotha*[12]	Lin top	4
83.	*Astrodendrum malabaricum* Dennst. Syn. *Sterculia guttata* Roxb. ex G.Don	Sterculiaceae			3
84.	*Terminalia catappa* L.	Combretaceae	*Inggudi*[12]		2
85.	*Clerodendrum infortunatum* L.	Lamiaceae	*Bhandir*[13]		1
86.	*Clerodendrum paniculatum* L.	Lamiaceae			8
87.	*Clerodendrum viscosum* f. *rubrum* Moldenke.	Lamiaceae	*Bhandirah*[12]		1
88.	*Premna corymbosa* Rottler & Willd.	Lamiaceae		Hason Misok	8
89.	*Vitex negundo* L.	Lamiaceae	*Nirgundi*[10,11,15]		1
90.	*Curcuma longa* L.	Zingiberaceae	*Haridra*[1]	Haldi	7
91.	*Kaempferia galanga* L.	Zingiberaceae	*Sugandhivacha*[12]		2
92.	*Zingiber capitatum* Roxb.	Zingiberaceae		Manam	1
93.	*Zingiber officinale* Rosc.	Zingiberaceae	*Adraka*[1]	Antarok Mlai	2

Note: Out of 93 species, 71 species has been mentioned in Ayurveda

Table 3: Distribution of 69 polyherbal formulations as per the therapeutic preparation

Sr. No	Preparation	No	Percentage
1.	*Choorna* (powder)	03	04.34
2.	*Kalka* (paste)	08	11.59
3.	*Kwatha* (decoction)	10	14.49
4.	*Swarasa* (juice)	21	30.43
5.	*Taila* (oil)	27	39.13

Table 4: Distribution of number of ingredients used in a polyherbal formula

Sr. No	Number of ingredients	No. of formulations	Percentage
1.	2	21	30.43
2.	3	19	27.54
3.	4	09	13.64
4.	5	08	15.15
5.	6	04	05.80
6.	7	04	05.80
7.	8	02	02.89
8.	10	01	01.45
9.	12	01	01.45

DISCUSSION

Because of a unique variety of geographical and climatic factors, India has a rich and varied flora of medicinal plants. Andaman and Nicobar Islands in the Bay of Bengal have a total area of 8249 sq. km of which approximately 87% or 7171 sq. km is a forest. The medico-botanical exploration of these islands was first of all conducted by the Central Council for Research in Ayurvedic Sciences in 1975 and 1980 and the report was published in 1983 and 1984[17] respectively. Whereas monograph on 'Observation on medico-botany of Andaman and Nicobar Islands' and 'Tribal Healthcare Research, Health-related demography' were published in 1988 and 2008. However, many other scientists published work on ethnomedicinal practices among native tribes of Andaman and Nicobar

Islands.[18-23] Their works were mainly related to the ethnobotanical uses of an individual plant and its role in folklife. Through this study, we recorded detail information on poly herbal formulation used by folk healers of Andaman and Nicobar Islands.

Herbal medicine is the primary source of healthcare practices for the tribal and local population. Under these surveys, we mostly came across the numerically largest tribe of the Nicobar group of Islands, i.e., Nicobarese, and thus the majority of claims were collected from the folk healers of the Nicobarese community. Apart from this additional claims were documented from the folk healers of different communities settled in these islands. In total 93 plant species were recorded which used to treat 35 different diseases.

Jwara is commonest diseases and most of the folk healers were well acquainted with its therapeutic management (11 formulations) followed by the pain in the abdomen (7 formulations) and headache (3 formulations). All these are routine symptoms experienced by children, adults and the geriatric population and many home remedies are popular among tribal and general people for its cure. *Kamala* (Jaundice) is another disease having momentous occurrence in Islander population and people still use in order to visit folk healers for remedial and non-remedial relief. In a tribal community, the disease hypertension was generally known as high BP (blood pressure) and folk healers generally used to treat hypertensive patients diagnosed by modern healthcare system either at PHC or District Hospital. Overall similar observations have likewise been recorded amongst the Nicobari tribes of Car Nicobar.[24]

Annona squamosa L. and *Senna occidentalis* (L.) Link. Syn. *Cassia occidentalis* L. were the most common medicinal plants used by tribes in the treatment of about 12 disease conditions. *Annona* is most commonly planted species, and *Senna occidentalis* (L.) is naturally grown common weed. It was also observed that folk healers used fresh leaves for most of the formulation (Table 5). They prepared *Swarasa* by squeezing the leaves on palm with the thumb and then adding this juice to water whereas decoction was prepared by adding dry powder of herbs to one liter of water and reducing it to half a liter. These both procedures were a bit different from the Ayurvedic procedure, but the basic concept of extraction of the active constituent in the water remains the same. They prepared coconut oil as per their traditional method. Juice extraction from fresh leaves is always easy in comparison to other parts of the plant. In almost all seasons leaves are available and easily collected and stored. Hence, it may be attributed towards their maximum utilization in folklore claims. These formulations were mainly used in the form of *Swarasa* and *Kalka* followed by *Kwatha*, oil and *Choorna*. Similar observations were also recorded in earlier studies on ethnomedicinal claims from Andaman and Nicobar Islands.[25] *Swarasa* and *Kalka kalpana* are most potent, easiest and basic therapeutic preparations method mentioned under *Panchavidha Kashaya Kalpana* in *Ayurveda*.

Table 5: Distribution of various part of plant used in polyherbal formulations

Sr. No	*Part*	*No*	*Percentage*
1.	Tvak (bark)	01	00.38
2.	Kanda (tuber)	02	00.76
3.	Panchanga (whole plant)	02	00.76
4.	Taila (oil)	13	04.92
5.	Patra (Leaf)	244	92.42
6.	Other	02	00.76

CONCLUSION

This work exclusively documented 69 compound formulations used by native healers in 35 diseases. Maximum 11 folklore claims were recorded for *Jwara* and 7 for *Udarashoola*. The plants *Annona squamosa* L. and *Senna occidentalis* L. were widely used in these claims. Use of *Swaras* and *Kalka kalpana* was popular among the native folk healers. More pharmacological, toxicological and clinical studies are required for confirmation of formulation efficacy, and they can be developed as new drug formulation.

ACKNOWLEDGMENT

Authors express sincere thanks to the Director General, Deputy Director General, Central Council for Research in Ayurvedic Sciences, New Delhi for providing financial aid for this programme and also thankful to all traditional practitioners, tribal people and the captains of the villages for their best co-operation and sincere thanks to the translators, islanders, and folklore collecting team for their un-tired efforts and assistance.

REFERENCES

1. Ayurvedic Pharmacopoeia of India-Part 1, Vol.1 (reprint). New Delhi: Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; 1999.
2. Andaman and Nicobar Islands [online] En.wikipedia.org. 2018. Available at: https://en.wikipedia.org/wiki/Andaman_and_Nicobar_Islands [Accessed 11 May 2017].
3. Observations on Medico-botany of Andaman and Nicobar islands. New Delhi: Central Council for Research in Ayurveda and Siddha, Ministry of Health and Family Welfare, Govt. of India; 1988.
4. Nandan AP. The Nicobarese of Great Nicobar- Ethnography. New Delhi: Gyan Publishing House 5; 1993.
5. Parasuraman S, Thing GS, Dhanaraj SA. Pharmacognosy Review. Polyherbal formulation: Concept of Ayurveda. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127824/ (accessed 3 June 2017).

6. Shashikanth J, Mohan CH, Reddy PR. A Potent Folklore Medicinal Plant: *Cadaba fruticosa* (L.) Druce. Research and Reviews: Journal of Botanical Sciences June 2014;3(3): 30-33.
7. Andaman and Nicobar Islands. En.wikipedia.org. 2018 https://en.wikipedia.org/wiki/Andaman_and_Nicobar_Islands (accessed 28 May 2017).
8. Ministry of Home Affairs, Government of India. Office of the Registrar General & Census Commissioner, India. www.censusindia.gov.in/2011 (accessed 28 May 2017).
9. Ayurvedic Pharmacopoeia of India-Part 1, Vol. 2. New Delhi: Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; 2001.
10. Bhavmishra. Bhavprapaksha Nighantu, Commentary by KC Chunekar, 9th ed. Varanasi, India: Chaukhanbha Orientalia; 1993.
11. Anonymous. Ayurvedic Pharmacopoeia of India-Part 1.Vol.5. New Delhi: Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; 2006.
12. FRLHT ENVIS Resource Partner on Medicinal Plants. Encyclopedia on Indian Medicinal Plants Home Vernacular Name wise.http://envis.frlht.org/index.php/bot _search (accessed 15 August 2018).
13. Sastry JLN. Dravyaguna Vijnana, 2nd Vol. 2 ed Varanasi, India: Chaukhanbha Orientalia; 2005.
14. Ayurvedic Pharmacopoeia of India-Part 1. Vol.6. New Delhi: Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; 2008.
15. Medicinal Plants used in Ayurveda. New Delhi: National Academy of Ayurveda, Department of ISM&H, Ministry of Health and Family Welfare, Govt. of India; 1998.
16. Ayurvedic Pharmacopoeia of India-Part 1. Vol.4. New Delhi: Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India; 2004.
17. Nair KV, Yoganarasimhan SN, Kesavamurthy KR, Shantha TR. Medico-botany of Andaman and Nicobar islands – III Ayurvedic drugs –I. Ancient Science of Life July 1984,4(1): 61-66.
18. Awasthi AK. Folklore Medico-Botany of the Aboriginal inhabitants of the Andaman & Nicobar Islands. Andaman Science Association 1987;3(2):80-87.
19. Bhargava N. Ethnobotanical studies of the Tribes of Andaman & Nicobar Islands, India. I. Onge. Economic Botany, January 1983;37(1):110-119.
20. Dagar HS, Dagar JC. Some Ethno-biological observations amongst the Nicobarese . J.Econ. Tax. Bot. January 1992; Addl. Ser.10:1-5.
21. Sinha BK, Malik KC. Probable Potential Medicinal Plants of Andaman & Nicobar Islands. Bull. Bot. Surv. India 1995; Vol.37(1-4):79-91.
22. Sonali D, Sheeja TE, Mandal Asit B. Ethnomedicinal uses of certain plants from Bay Islands. Indian Journal of Traditional Knowledge April 2006;5(2):207-211.
23. Pandey RP, Rasingam L, Lakra GS. Ethnomedicinal plants of the aboriginals in the Andaman & Nicobar Islands. NELUMBO December 2009;51:5-40.
24. Punnam Chander M, Kartick C, Gangadhar J, Vijayachari P. Ethno medicine and healthcare practices among Nicobarese of Car Nicobar-An indigenous tribe of Andaman and Nicobar Islands. Journal of Ethnopharmacology October 2014;(158): 18-24.
25. Kamble Mayur Y, Mane Santosh S, Chidambaram M, Iyyappan J. Diversity of Ethno-Medicinal Plants of Tropical Islands-With Special Reference to Andaman and Nicobar I. Sivaperuman, C., Velmurugan, A., Singh, A. and Jaisankar, I. (eds). Diversity of Ethno-Medicinal Plants of Tropical Islands. San Diego: Elsevier Science & Technology; 2018. pp. 55-103.

हिन्दी सारांश

भारत के अंडमान और निकोबार द्वीप समूह के लोक चिकित्सक द्वारा उपयोग किये जाने वाले पोली हर्बल फार्मूलेशन का अध्ययन

परिचयः अंडमान निकोबार द्वीप समूह में स्थित विभिन्न जनजातियों के साथ–साथ अन्य समुदायों में अभी भी पारंपरिक औषधीय ज्ञान का समृद्ध खजाना है। इससे पहले कि वे आधुनिक चिकित्सा को पूर्ण रूप से अपना लें इसके लिए उनके स्वास्थ्य और स्वास्थ्य रक्षक प्रथाओं के पारम्परिक (स्वदेशी) ज्ञान का प्रलेखन करना बहुत आवश्यक है अन्यथा वे अपने दैनिक जीवन तथा उपचार में स्थानीय पादपों का प्रयोग पूर्ण रूप से भूल जायेंगें। सदियों से पारंपरिक चिकित्सा प्रणाली में अधिकतर स्थानीय पादपों का प्रयोग किया जाता है। एकल औषधि अथवा अनेक पादपों के संयोजन से तैयार होने वाली औषधि अर्थात पोली हर्बलिज्म औषधि प्रयोग का यह ज्ञान मौखिक रूप से पीढ़ी दर पीढ़ी बिना किसी बाधा के श्रृंखलाबद्ध रूप से स्थानांतरित किया जाता है।

उद्देश्यः भारत के अंडमान एवं निकोबार द्वीप समूह के स्थानीय लोगों द्वारा प्रयोग किये जाने वाले पोली हर्बल (मिश्रित) योग का प्रलेखन करना।

सामग्री एवं विधिः क्षेत्रीय आयुर्वेदीय अनुसंधान केंद्र, पोर्टब्लेयर के सर्वेक्षण दल ने वर्ष 2013 से वर्ष 2016 के दौरान अंडमान और निकोबार द्वीप समूह क्षेत्र के 75 विभिन्न वन क्षेत्रों के 23 से अधिक क्षेत्रों का सर्वेक्षण किया गया और स्थानीय पारंपरिक लोक चिकित्सकों का एथनो–मेडिसिन सर्वेक्षण प्रोटोकॉल के अंतर्गत निर्मित प्रश्नावली के आधार पर साक्षात्कार किया गया।

अवलोकनः सर्वेक्षण के दौरान मिश्रित योग से सम्बंधित 69 लोक प्रचलित दावों को पंजीकृत किया गयाय जिनमें से अधिकतम 12 (17.39%) दावें ज्वर और 7 दावें पेटदर्द (उदरशूल) के चिकित्सा में पाए गए। अत्यधिक संख्या में व्याधियों के उपचार के लिए 12 योगों में *एनोना स्कवामोसा* एल. एवं *सेन्ना ओक्सीडेंटील्स* (एल.) लिंक. *सिंकेसिया ओक्सीडेंटील्स* लिंक पादपों का प्रयोग घटक के रूप में किया गया। ताजा पत्तियों का अधिकतर उपयोग यौगिक फार्मूलेशन (92.42%) के तैयार में किया गया और अधिकतर औषधियों को स्वरस (39.13%) और कल्क (30.43%) के रूप में उपयोग किया गया।

निष्कर्षः अंडमान और निकोबार द्वीप समूह के स्थानीय लोक चिकित्सक विभिन्न प्रकार के आयुर्वेदिक यौगिक फार्मूलेशन का प्रयोग कर रहे है। इन लोक प्रचलित दावों के प्रभावकारिता के पुष्टि हेतु योजनाबद्ध फार्माकोलोजिकल, विषाक्तता विज्ञान और आतुरीय अध्ययनों की आवश्यकता है ताकि नवीन फार्मूलेशन का विकास किया जा सके।

शब्द कुंजीः पोली हर्बल फार्मूलेशन, लोक चिकित्सक, जनजाति, अंडमान और निकोबार