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Some Ethnomedicinal Plants used for Treatment of Cough in Rayalaseema region of Andhra Pradesh, India

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ABSTRACT

Plants have been used by primitive men since the beginning of time in an attempt to control their cough problem. The information was passed from generation to generation. The use of plants for treatment of cough is a common practice among the interior tribal people of Rayalaseema. In the present study a list of 28 plant species belonging to 28 genera and 22 families are used for treatment of cough. The mode of preparation, administration and the dosage of the drug's use are collected from the tribal doctors to control the cough.

Keywords: Medicinal plants, Cough, Rayalaseema

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INTRODUCTION

The Primitive man lived in close association with nature and depended on it for his survival ever since the beginning of human life. This relationship with nature influenced human life and culture. The early man acquired the knowledge of medicinal properties of many plants by trial and error. Eventually, he passed on this treasure of knowledge from one generation to other through word of mouth, as the primitive people were devoid of any written system. Among the medicinal practices cough is the very common practice of different tribal communities of rayalaseema region. Cough is a sudden and often repetitively occurring reflex which helps to clear the large breathing passages from secretions, irritants, foreign particles and microbes. Frequent coughing usually indicates the presence of a disease. Many viruses and bacteria benefit evolutionarily by causing the host to cough, which helps to spread the disease to new hosts. During present study an attempt has been taken to collect information on medicinal plants used for treatment of cough by the tribal people of Rayalaseema region of Andhra Pradesh, document them and also to evaluate their biological activity.

MATERIAL AND METHODS

The various methods used for the study of Medicinal plants of Rayalaseema region of Andhra Pradesh, India, were essentially the same as described [1-5]. Study was under taken during the period 2008-2011. It is the outcome of intensive field trips were made in the interior tribal pockets of the forest areas. Village wise information was gathered about the plants, which have medicinal values from the Tribal / Viadyas / Villagers who secured from their hereditary and ancestral line. Collecting information from them is not an easy task as they treat it will be an outmost secret, which was not even shared among their community members. While carrying out the fieldwork, help was taken from the traditional healers in the ethnobotanical information, as they are familiar with the plants around them. Enquiries were made on type of plants they use and their usage in their daily life. Information about the uses of plants was obtained from the tribal doctors, elders and housewives. Tribal houses, fields, place of worships, gardens, and weekly markets were also visited. Communication with these people was made in Telugu.

Plant Collection:

Intensive field trips have been made into the interior villages in different season's i.e. pre-monsoon, monsoon, and post monsoon seasons of the year for the collection of information on various plants used by the tribal people for cough. During this field trip different plants were collected and made observation on the habit, habitat, ecological association, leaves arrangement, flower colour, fruit and seeds.

Identification:

Specimens were identified with the help of standard floras of Gamble's "Flora of the Presidency of Madras" [6] using the field observations. The identifications were later confirmed with the help of Flora of Andhra Pradesh [7-8].forest flora of Andhra Pradesh [9] and by comparison with authentic specimens in the Sri Venkateswara University.

RESULTS AND DISCUSSION

During field survey, 28 plant species are recorded as medicinal plants which are used by the tribal people in Rayalaseema. Out of these 28 plant species 13 tree, 8 herbs, and 7 are shrubs. The 28 plants are being used commonly for cough. Of these 28 plant species leaves stands first rank (13) followed by the stem bark 5, seeds 2 bulb, fruit, fruit pulp, latex, rhizome, root, stem and stem bark& leaves are 1 each (Fig-1). And the medicines prepared from different parts of the plants like root, stem, leaf, bark, fruit, whole plant, seed etc. this information was given in the Table-1. List of plant species are used for cough are given alphabetically, name of the plant species, family, local name, part used, mode of preparation and dosage (Table-1). are given for each species with a view to provide basic information for further follow up studies on medicinal plants. Despite various papers that have been conducted on the medicinal plants of South India [10-13]. Similar results have been obtained in this region.

Fig 1: Part wise analysis of medicinal plants

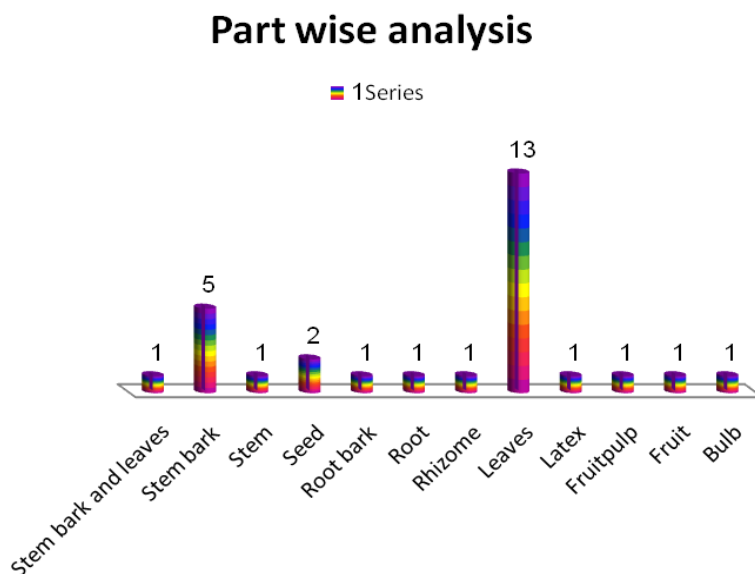


Table 1: List of plants used for treatment of cough

S.No	Name of the species	Family	Local name	Flowering and fruiting	Part sued	Dosage and mode of preparation
1	<i>Abrus precatorius</i> L.	Fabaceae	Guruvinda	Jul – Feb.	Leaves	A spoonful of leaf juice is administered daily twice for 3 days
2	<i>Acacia torta</i> (Roxb.) Craib	Mimosaceae	Korintha chekka	Nov – May	Stem	10 g of stem sap with 2 spoonfuls of mother's milk is administered to children twice a day till cure.
3	<i>Achyranthes aspera</i> L.	Amaranthaceae	Uttareni.	Throughout the year	Leaves	Dry leaves are made into cigars and the smoke is inhaled for 2 days.
4	<i>Albizia odoratissima</i> Benth.	Mimosaceae	Chinduga	Mar-Aug	Leaves	Leaves are mixed with ghee and given orally for 3 days.
5	<i>Allium cepa</i> L.	Liliaceae	Ulli Gadda	Dec-Jan.	Bulb	5ml of onion juice is mixed with equal amount of honey and taken orally 3 to 4 times a day for 2-3 days.
6	<i>Aloe vera</i> (L.) Burm.f.	Liliaceae	Kalabanda		Leaves	2 spoonfuls of the fried leaf pulp in a little ghee eaten with jaggery thrice a day for 3 days.
7	<i>Anogeissus latifolia</i> Roxb.	Combretaceae	Chirumanu	Dec- Feb.	Stem bark and leaves	Stem bark extract is administered 3 spoonfuls twice a day for 3 days. Leaves with tubers of <i>Dioscorea pentaphylla</i> are taken in equal quantities and ground. 2 spoonfuls of paste mixed with a spoonful of honey is administered daily once for 3 d. Meanwhile paste soaked in hot water and is inhaled daily once for 3 days
8	<i>Balanitis aegyptiaca</i> Delile	Balanitaceae	Garachettu	Mar-May	Root	Root crushed with ash of <i>Aristida setacea</i> . 2 sponfuls of the filtrate given twice a day for 3 days.
9	<i>Calamus rotang</i> L.	Arecaceae	Pemu Bethamu	Sep-Feb.	Leaves	3 ml of leaf extract is administered orally twice a day for 3 days.
10	<i>Calotropis gigantea</i> (L.) R.Br.	Asclepiadaceae	Gilledu	Throughout the year	Latex	Latex applied on neck region to relieve. Gynostegium heated on pan till it turns into ash and common salt is added to it. This ash is taken orally twice a day for 4 days.
11	<i>Cassia absus</i> L.	Caesalpiniaceae	Chanupala vittulu	Aug-Feb	Seeds	3 ml decoction of seeds is administered orally twice a day for 3 days.
12	<i>Diospyros melanoxylon</i> Roxb.	Ebenaceae	Beedi Aku	Oct-Apr	Stem bark	One spoonful of stem bark extract mixed with jaggery is administered twice a day till cure.



13	<i>Erythrina variegata</i> L.	Fabaceae	Baditha	Mar-Aug	Leaves	Leaf smeared with castor oil, Warmed and applied on the head of young babies.
14	<i>Gmelina arborea</i> Roxb	Verbenaceae	Gummidi	Mar- Dec	Leaves	5ml of leaf juice is administered twice a day for 7 days.
15	<i>Jatropha curcas</i> L	Euphorbiaceae	Nepalamu	Jul - Mar	Stem bark	Stem bark ground with a pinch of salt, made into pills, 2-3 pills are administered twice a day for 3 days.
16	<i>Justicia adhatoda</i> Medik.	Acanthaceae	Addasaramu	Oct – Mar.	Leaves	One teaspoonful of the leaf extract is taken orally for 7 days.
17	<i>Kalanchoe pinnata</i> (Lam.)	Crassulaceae	Gallarapaku.	Jan-Mar	Leaves	A single raw leaf is eaten per day with empty stomach in the morning for about 8days.
18	<i>Limonia elephantum</i> (Correa)	Rutaceae	Velaga	Feb-Oct.	Root bark fruit pulp	Root bark and fruit pulp crushed with black pepper and the extract is administered two spoonfuls twice a day till cure.
19	<i>Moringa oleifera</i> Lam.	Moringaceae	Munaga chettu	Apr-Jul	Leaves	Leaves of this plant squeezed with a little salt on the palm. Add some lime and apply around the neck.
20	<i>Musa paradisiacal</i> L.	Musaceae	Aratikaya	Whole year	Leaves	Leaf ash with honey is taken twice a day for 5 days.
21	<i>Piper nigrum</i> L.	Piperaceae	Pippadi gandi	Feb & May	Leaves	5 ml of leaf juice is administered orally twice a day for 4 days.
22	<i>Pongamia pinnata</i> (L.) Mierre.	Fabaceae	Kanuga Chettu	Dec-May	Leaves	5ml of leaf juice is given orally twice a day for 3 days.
23	<i>Pterolobium hexapetalum</i> (Roth)	Caesalpiniaceae	Korintha	Apr-Jul	Stem bark	5 ml of stem bark decoction is administered orally twice a day for 6 days.
24	<i>Pterospermum xylocarpum</i> Gaertn.	Sterculiaceae	Lolugu Chettu	Apr-Nov.	Stem bark	3 ml of stem bark decoction is given orally once a day for 4 days for infants.
25	<i>Strychnos potatorum</i> L. F	Loganiaceae	Indupu	Jun-Sep.	Seeds	Seed paste mixed with fruit paste of <i>Terminalia Chebula</i> and this paste is administered in doses of 2 spoonfuls once a day for 3 days.
26	<i>Syzygium cumini</i> L. Skeels	Myrtaceae	Neredu	Apr-Jun	Stem bark	10 ml of stem bark extract is administered orally twice a day for 4 days.
27	<i>Terminalia chebula</i> Retz.	Combretaceae	Karakkaya	Mar-May	Fruit	Fruit paste mixed with breast milk and administered orally to infants.
28	<i>Zingiber officinale</i> Rose	Zinziberaceae	Allamu	Aug-Sep.	Rhizome	One spoonful of the rhizome juice is mixed with an equal quantity of cow butter, is warmed and massaged on the chest and throat for 4 days before bed time.



CONCLUSION

In the Rayalaseema region of Andhra Pradesh, plant species have been used luxuriantly by tribal people in their daily life. The exploitation of medicinal plants for their economic value use must be carried out, but proper care should be taken for their conservation by both in-situ as well as ex-situ conservation methods. In view of this authors request the State Govt., Forest Department and the Non Government Organizations to protect the medicinal plants from the merciless collection and destruction of the habitat or hills. It is also requested to take special attention for the cultivation and propagation of medicinal plants in the forest areas by the local tribal groups. A medicinal plant parks” should be maintained in this region as conservation programme. Phytochemical studies of above said plants need to be taken up to find out the exact ingredients that help in the curing of cough

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REFERENCES

- [1] Jain SK. Observations on Ethnobotany of the Tribal of Central India, In Jain S K (ed.) 1981; I.c:193-198.
- [2] Jain SK(ed). A manual of Ethnobotany; Scientific Publishers, Jodhpur 1987.
- [3] Jain SK (Ed.) Methods and approaches in Ethnobotany. Society of Ethnobotanists, Lucknow 1989.
- [4] Chadwick DJ, Marsh J. (ed.) Ethnobotany and the search for new Drugs. John Wiley & Sons, Chichester, UK 1994.
- [5] Martin G. Ethnobotany - A method manual. Chapman and Hall, London1995.
- [6] Gamble JS, Fischer CEC Flora of the Presidency of Madras. Adlard and Sons Ltd. London 1915-1936; 13.
- [7] Pullaiah T and Chennaiah E. Flora of Andhra Pradesh, India. Scientific Publishers, Jodhpur 1997.
- [8] Pullaih T and Ali Moulali D. Flora of Andhra Pradesh. Scientific Publishers, Jodhpur, India 1997; 2: 464-921.
- [9] Reddy RD, Prasad MK, and Venkaiah K. Forest flora Andhra Pradesh (Vernacular names) Hyderabad 1991.
- [10] Prayaga Murty P and Venkaiah M. Journal of Phytology 2010; 2(4): 07–12.
- [11] Prayaga Murty P and Narasimha Rao GM. Journal of Phytology 2010; 2(4):17–21.
- [12] Savithramma N, Sulochana Ch. Fitoterapia 1998; LXIX: 253–254.
- [13] Viswanathan TV. Current Science 1973; 42:805–806.