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Ethnomedicinal Observations among the Kondareddis of Khammam District, Andhra Pradesh, India

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Abstract

Ethnomedicinal information of Kondareddis has been collected from Khammam district of Andhra Pradesh, India during 2006-2008. A total of 40 plant species belonging to 39 genera and 31 families were used in traditional medicine to heal different diseases. The present work is an attempt to identify and conserve the medicinal plants in Khammam district. The study shows a high degree of ethnobotanical novelty and the use of plants among the Kondareddis reflects the revival of interest in traditional folk culture.

Key words: Ethnomedicine; Kondareddis; Khammam; Andhra Pradesh; India.

Introduction

With the advent of human civilization, many systems of therapy have been developed primarily based on plants. Ayurveda, Homeopathy, Sidda, Unani, etc. are our traditional systems of medicines. The World Health Organization has estimated that over 80% of the global population rely chiefly on traditional medicine (Akerele 1992).

Ethnobotanical research can provide a wealth of information regarding both past and present relationships between plants and the traditional societies. It is hoped that, in the future, ethnobotany may play an increasingly important role in sustainable development and biodiversity conservation (Rajasekaran & Warren 1994). Interaction with the traditional areas of science, ethnobotany gives out several interrelated and interdisciplinary subjects link *ethnomedicine*, *ethnoarchaeology*, *ethnobryology*, *ethnoecology*, *ethnoagriculture*, *ethnonarcotics*, *ethnopharmacology*, etc.

Khammam district lies between 16° 45' and 18° 35' North latitudes and between 79° 47' and 80° 47' East longitudes of north eastern part of Andhra Pradesh. The district is bounded on the north by Chattisgarh and Orissa states, on the south by Krishna district, on the east by East and West Godavari districts and on the west by Nalgonda and Warangal districts. The main tribes of Khammam district are Koyas, Kondareddis and Lambadas. Presently, the district has spread over an area of 16,029.00 sq km. The total population of the district, as per 1991 census, is 22,15,809 of which 17,67,646 are rural and 4,48,163 are urban. The percentage of rural population in the district is 79.77. The scheduled caste population in the district forms 16.25% of the total population while scheduled tribes account for 25.23%.

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As per Rao (1997), the climate of Khammam district is characterized by hot summer and good seasonal rainfall. The average annual rainfall of the district is 1044.8 mm. Khammam district is endowed with a rich forest resource. More than half of the land (52.6%) is under forests. The region receives a rainfall between 800-1200 mm, with the altitude ranging from 100-800 m. The mean temperature is above 15º C. The forest is predominantly dry deciduous. The forests can be classified as dry deciduous, moist deciduous, riparian, scrub and grassland. The forests of this district have great potentiality both from the economic and botanical points of view. The district is one of the timber and non-timber rich forests in the Andhra Pradesh.

According to 1991 census, the tribal population in the State was 41.99 lakhs. Of these 5,59,048 Kondareddis are living in the agency tracts of Khammam district. Kondareddis are one of the most primitive tribes of Andhra Pradesh. They call themselves Pandava Reddis. Konda Reddis are largely distributed in Mothugudem, Chintoor, Kunavaram, Vararamachandrapuram, Reddigudem, Gondulur, Edugaraallapalli, Dommapet and Venkatapuram Mandals in Khammam district. The small settlements of Kondareddis are usually perched on hillsides or neatly tucked in the jungle clearings. In foothills, they live in association with Koyas. Even if they live in the same village along with Koyas, their houses are distanced from Koyas as they treat them inferior in social status.

Physically, Kondareddis are of small height with sturdy stature. Legs are short in comparison to the length of the body. The skin colour varies from a very light copper brown to dark chocolate. The hair is usually wavy but almost straight as well as curly. Kondareddi women dress generally with a sari, a small loin-cloth and in some areas a bodice. In the hills, the women wear short, narrow pieces of saris, which they wrap round the hips. Men wear a loin-cloth called 'Gochi'; i.e. a narrow shred of cloth drawn between the legs and looped over a twined cord made of Adda fibre (*Bauhinia vahlii*).

Their primitive technology is of pre-agricultural times and characterized by digging stick, bow and arrow. Podu (*shifting*) cultivation is still practiced by Kondareddi. (Haimendorf 1945)

A headman called 'Pedda Kapu' is the only chief of the Konda Reddy village. However, this monolithic leadership structure is quite democratic in practice. His decisions are governed by the majority opinion of the family heads in the village. The highest institution of social control is ''KulaPedda'. Divorce and widow remarriage are socially approved. Levirate and sorrorate are in vogue. Polgamy is permitted while polyandry is strictly prohibited.

The staple food of Kondareddis is *jowar*, which is frequently substituted with *bajra*, *ragi* and other millets. Rice is also increasingly consumed, especially by wage-earners like forest labour. Green leaves, edible fruits, roots and tubers are collected from forest and eaten after converting them into curries. During periods of scarcity, wild tuber and roots like 'Addadumpa' and 'Niluvudumpa' constitute their diet.

Intoxicating liquors, both indigenously brewed or purchased locally are consumed frequently. Toddy, which is tapped by Konda Reddis from *Caryota* and *Borasis* trees fills the 'cup of joy' for them besides playing important role in ritual.

Sickness, illness and other situations of travail and tribulations are attributed to the work of angered malevolent deities. To identify the trouble making deity, the services of an established spirit medium are commissioned. Diagnosis and treatment of sickness involve a series of magico-religious practices besides administering herbal medicine. While spirit medium is called '*Mantragadu*' the native doctor is known as '*Vejju*'.

Interviewing traditional healers for accurate information about medicinal recipes, their component herbs, and their medicinal and other uses constitutes an important activity in ethnopharmacological field investigation (Lipp, 1989). The knowledge and experience of a traditional healer is considered valuable as it comes from thousands of years of trial and error and forms the basis of modern medicine and therapeutics.

Ethnobotanical information of Kondareddis is poorly known. The medicinal plant wealth of Andhra Pradesh by Hemadri *et al*. (1987, 1994) contains a mere list of medicinal plants. Ramarao *et al.* (1999) again were the first to brief the phyto-zootherapy of the tribes of Andhra Pradesh. Reddy & Raju (2006) published a paper on Ethnobotanical medicine for rheumatic diseases from Eastern Ghats of Andhra Pradesh, Reddy *et al.* (2007) published a paper on traditional knowledge on wild food Plants in Andhra Pradesh, India. Hardly there are only a few papers published on ethnobotany of Khammam district. V.S Raju & K.N. Reddy 2006 published paper on Diarrhoea and dysentery of Khammam district. Upadyay & Chauhan (2000) noted the ethnobotany of Koyas of Gundala Mandal. Hence, the present work is under taken to communicate the ethnobotanical plants of Kondareddis. The present work is gives additional information on ethnobotanical plants.

Material & methods

Ethnobotanical exploration trips were carried out in Kondareddi dominated villages during 2006-2008. The area understudy was thoroughly covered and the people were interrogated for information. The informants were chosen because they claimed to be professional practitioners of the traditional medicine of the region. Most of the healers refuse to join a local union or even to cooperate with local physicians because they are afraid that they will be forbidden to practice. Majority of herbal ingredients used by traditional healers are collected from the wild directly by these healers. Interviews were conducted in a place where the informants were most comfortable. At the end of each interview, specimens of plants mentioned for medicinal uses were collected and identified. Identification of species made with the help of Floras (Gamble & Fischer, 1915-1935; Pullaiah *et al.* 1997) and these specimens have been housed in the Herbarium of the Laila Research Centre, Vijayawada, Andhra Pradesh for further reference.

Enumeration

In the enumeration, the taxa arranged alphabetically. The name of species is followed by, family name, local name, habit, disease and medicinal uses.

1. *Acacia leucophloea* (Roxb.) Willd. (MIMOSACEAE)
T: Tella thumma Habit: Medium sized tee.

Bad breath: Stem bark decoction gargled daily twice.

2. *Achyranthes aspera* L. (AMARANTHACEAE)
T: Korrucchu, Ucchulu chettu Habit: Erect stiff herb.

Insect bite: Leaf paste (10-15g) administered thrice in course of two hours.
Tumors on body: Root powder (10-12g) administered with honey daily twice for until cure.

3. *Aegle marmelos* (L.) Correa (RUTACEAE)
T: Maredu, Patri Habit: Medium-sized tree

Loose motions: Fruit pulp (one teaspoon) administered daily twice for two days.

4. *Aerva lanata* (L.) Juss. (AMARANTHACEAE)
T: Pindi poolu, Pindi koora Habit: Much branched herb
Drowsiness of body: Root decoction (2 teaspoons) administered thrice a day.

5. *Anisochilus carnosus* (L.f.) Wall. ex Benth. (LAMIACEAE)
T: Kodipunju chettu, Peda gandhara Habit: Annual aromatic herb
Deep cuts by iron tool: Tender shoots paste applied daily twice for 3 days.

6. *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill. & Perr. (COMBRETACEAE)
T: Tiruman Habit: Large deciduous tree
Persistent cough: Stem bark (3 inches) chewed and the sap swallowed.

7. *Asparagus racemosus* Willd. (LILIACEAE)
T: Noorumutyalu chettu, Pilli tigalu Habit: Climbing undershrub.
Cooling agent: Tuber paste (10-15g) administered with a cup of water daily twice for 2 days.
General weakness: Peeled fresh tuber juice (half cup) administered with a spoon of sugar daily twice for 4 days.

8. *Bauhinia racemosa* Lam. (CAESALPINIACEAE)
T: Are, Chinna are Habit: Medium sized tree
Diarrhoea: Stem bark (10-12g) paste administered twice a day.

9. *Bauhinia vahlii* Wight. & Arn. (CAESALPINIACEAE)
T: Addaku Habit: Liana
Anthelmintic: Baked seeds eaten daily twice for two days.
Drowsiness of body: Roasted seeds eaten.

10. *Baliospermum montanum* (Willd.) Muell.–Arg. (EUPHORBIACEAE)
T: Konda amudam Habit: Stout herb
Jaundice: Root decoction (3 teaspoons) administered daily once a week.
Swellings due to wound: Seed paste applied externally.

11. *Bixa orellana* L. (BIXACEAE)
T: Jabaru kaya Habit: small tree
Insect repellant: Seeds burnt and smoke spread out at home.

13. *Bombax ceiba* L. (BOMBACACEAE)
T: Burugu Habit: Deciduous tree
Reddening of eyes: Petals paste with breastfed milk applied externally.

14. *Butea monosperma* (Lam.) Taubert (PAPILIONACEAE)
T: Moduga Habit: Deciduous tree
General weakness: Inner bark of the root paste (20g) mixed with 200g of wheat powder and made into a bread and administered daily twice for a fortnight.

15. *Capparis zeylanica* L. (CAPPARACEAE)
T: Are donda, Gaddagoru chetu Habit: Climbing shrub

Ulcers: Pinch of root powder administered daily once, till cure.

17. *Caryota urens* L. (ARECACEAE)
T: Jeelugu Habit: Tall palm
Loss of appetite: Toddy (3 glasses) administered daily once for a month.

19. *Colocasia esculenta* (L.) Schott in Schott & Endl. (ARACEAE)
T: Chama gadda Habit: Tall tuberous herb
General debility: Fresh leaves eaten daily once for a fortnight. / Leaves used as curry once at alternate day for a fortnight.

20. *Costus speciosus* (J. Koenig) Smith (COSTACEAE)
T: Besikadumpa, Kola muti Habit: Erect herb
General debility: Boiled tuber are consumed.
Ulcers: Tuber paste applied externally.

21. *Curculigo orchioides* Gaertner (HYPOXIDACEAE)
T: Adavi taadi, Naela tadi Habit: Small herb
Deep cuts by iron tool: Tuberous root paste applied externally.
Jaundice: Tuberous root paste (12 g) administered daily twice for three days.

24. *Cassia occidentalis* L. (CAESALPINIACEAE)
T: Gurrapu tanthemu Habit: Undershrub
Toothache: Root paste kept on affected teeth daily once (before going to bed), for until cure.
Insect bite: Root paste applied over the bite.
Body swelling: Leaf paste applied over the swellings.

25. *Celastrus paniculatus* Willd. (CELASTRACEAE)
T: Maner teega, Teega palleru Habit: Climbing shrub
Insect bite: Stem bark paste (10-15g) administered thrice a day.

26. *Centella asiatica* (L.) Urban (APIACEAE)
T: Saraswati aku Habit: Creeping herb
Nervine tonic: Dry leaf powder (One teaspoon) administered with a cup of milk daily once for three moths.
Voice clarity: Root decoction (3-4 teaspoons) administered daily once, till cure.

27. *Cissampelos pariera* L. var. *hirsuta* (Buch.-Ham. ex DC.) Forman (MENISPERMACEAE)
T: Chiru boddi, Kuttu veru, Pokka jilledu Habit: Slender climber
Diarrhoea: Root paste applied on the central part of the head.
Anthelmintic: Fresh root (one inch) chewed and sap swallowed twice a day.

28. *Cocculus hirsutus* (L.) Diels (MENISPERMACEAE)
T: Dusarateega, Shibbi teega Habit: Climbing shrub
Nervine tonic: Roots (12g) crushed with the 2 long pepper, mixed in a cup of goat milk and extract administered daily once for a fortnight.

29. *Desmodium gangeticum* (L) DC. (PAPILIONACEAE)
T: Dayyam jada Habit: Erect undershrub
General weakness: Root decoction (half cup) administered daily once for 3 days.

30. *Dillenia pentagyna* Roxb. (DILLENIACEAE)
T: Revadi Habit: Deciduous tree
Bronchitis: Stem bark (4 inches) crushed with a pinch of common salt and the extract administered daily once for 3 days.
Swellings due to wounds: Stem bark (3 inches) crushed with sufficient quantity of salt and the extract administered daily once for three days.

31. *Elephantopus scaber* L. (ASTERACEAE)
T: Pipperishi, Yenugu adugu Habit: Small herb
Pyorrhoea: Root paste with pepper powder used as toothpaste.

33. *Evolvulus alsinoides* (L.) L. (CONVOLVULACEAE)
T: Vishnu krantha Habit: Prostrate herb
General weakness: Shade dried whole plant powder (half teaspoon) administered with honey daily twice, till cure.

34. *Ficus hispida* L.f. (MORACEAE)
T: Bommidi, Dandi chettu Habit: Small tree
Aphrodisiac: Dried fruits (two) eaten with 2 pepper daily once for a month.

35. *Flemingia strobilifera* (L) R. Br. ex Ait. (PAPILIONACEAE)
T: Nalla baddu Habit: Erect undershrub
Body swellings: Root paste applied externally.

36. *Habenaria roxburghii* Nicolson (ORCHIDACEAE)
T: Malleleena gadda Habit: Terrestrial herb
Insect bite: Tuber (12g) crushed with 4 g of pepper and garlic cloves and the extract administered thrice a day.

37. *Holarrhena pubescens* (Buch.-Ham.) Wallich ex G. Don (APOCYNACEAE)
T: Paala chettu, Kodisa paala, Istari paala, Gadda paala Habit: small tree
Anthelmintic: Roasted seed powder (10-12g) mixed in a cup of tea and the extract administered daily twice for 3 days.

38. *Melastoma malabathricum* L. (MELASTOMACEAE)
T: Mantram chettu Habit: Evergreen shrub
Body swellings: Aerial parts powder (half teaspoon) administered with a cup of water daily once for three months.

39. *Orthosiphon thymiflorus* (Roth) Sleesen (LAMIACEAE)
T: Adavi sajja Habit: Erect undershrub
Skin eruptions: Leaf juice used as lotion.

40. *Plumbago zeylanica* L. (PLUMBAGINACEAE)
T: Chitra moolamu Habit: Undershrub
Oedema: Pinch of root paste put in milk for curdling. After 12 hours the curd administered daily once for a fortnight.

42. *Semecarpus anacardium* L.f. (ANACARDIACEAE)
T: Jeedi, Nalla jeedi Habit: Medium sized tree
Sprains: Fruit juice used as a lotion.

43. *Terminalia arjuna* (DC.) Wight & Arn. (COMBRETACEAE)
T: Eaeti maddi Habit: Large tree
Gynecological disorders: Crushed stem bark (half cup) kept in a cup of water for 5 minutes and then strained. One cup of infusion administered daily once for fortnight.

44. *Thespesia lampas* (Cav.) Dalz (MALVACEAE)
T: Puttangi, Konda patti Habit: Undershrub
Nervine tonic: Root extract (one cup) administered daily once for three days.

45. *Triumfetta rhomboidea* Jacq. (TILIACEAE)
T: Arista chettu, Gaeda titthara Habit: Undershrub
Skin eruptions: Leaf paste applied externally.

46. *Vitex altissima* L.f. (VERBENACEAE)
T: Nemali adagu Habit: Deciduous tree
Snake bite: Stem bark decoction administered orally.

47. *Wrightia tinctoria* R. Br. (APOCYNACEAE)
T: Paala kodisha, Tedla paala Habit: Deciduous tree
Sore throat, cough: Leaves (2-3) chewed and the sap spit out.

Results and Discussion

The present study focused mainly on the plant species used by the Kondareddi tribes in Khammnam district for various medicinal uses. The reported plants were arranged according to their scientific name and family, Vernacular (local) names as recorded during the field work and uses are presented. During the study period, 40 plant species belonging to 39 genera and 31 families were identified as medicinal plants. Of these 15 species are trees, followed by herbs (9), shrubs and undershrubs (8) and climbers, creepers & lianas (8). Medical administration includes oral administration of decoctions, poultice and plant parts as paste. The study shows a high degree of ethnobotanical novelty and the use of plants among the Kondareddis reflects the revival of interest in traditional folk culture.

Conclusion

The tribal people acquired the knowledge of therapeutical properties of local plants through times immemorial by trial and error methods and transmitted this knowledge orally from generation-to-generation. The Kondareddis of Khammam district still retain their original ethnic culture and traditions. Depending upon the forest resources available, their day-to-day requirements of food and medicine are based. Conversely, the tribal societies are storehouses of knowledge of indigenous vegetation. But, this knowledge is jealously guarded as secret by majority. There is very little or no documentation of this ethno-medico-botanical knowledge pertaining to

Kondareddis of Khammam district. All the more, several wild medicinal plants are fast disappearing due to the destruction of forest habitats, invasion of exotic flora and introduction of new crops. Hence, there is an urgent need for exploration and documentation of this traditional knowledge in order to determine the conservation value of the local forests.

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