Tribal medicine — The real alternative

S Vedavathy
Herbal Folklore Research Centre, B-23, Vaikuntapuram, Tirupati 517 502, A.P., India
E-mail: vedavathy@hotmail.com

Received 3 October 2001

The author is involved in Ethno-medico-botanical survey for the past two decades. Much knowledge accumulated by the villagers and tribals is unknown to the scientists and urban people. Many varieties of plants associated with tribal people have already disappeared forever and many more are on the verge of extinction. The impact of deforestation, urbanization and modernization is shifting the tribals from their natural habitats and their very knowledge, particularly with respect to herbal drugs is slowly disappearing. The immediate concern is to preserve this knowledge. There is an urgent need to tap the information before it is too late. Whatever exists is confined only to the older generation. There is a need to preserve this for the future. In this context some observations made by the author during her survey in Chittoor district, Andhra Pradesh, are presented in a nutshell.

Keywords: Tribal medicine, Yanadi, Yerukala, Nakkalu, Irula, Chittoor district (Andhra Pradesh)

India has an immense wealth of rich biodiversity. According to estimates there are about 45000 species of wild plants and out of this 7500 species1 are in medicinal use in indigenous health practices. The tribals who depend on forest wealth are the real custodians that safeguard the medicinal plants till now. The real danger for the biodiversity is from urban elite who destroys the forests for industrialization and for their own needs. In any country, for maintaining biodiversity the forests should be one third of the total land. The forest cover is far below the desired level in India; it is about 19.5% and the protected area in that is only 10%. Rapid deforestation caused by over-harvesting and exploitative trade of medicinal plants has significantly reduced the availability of the medicinal plants in Chittoor district over the last 50 years. Along with deforestation the most threatened are the tribals who live in harmony with nature. The wonderful tribal medicine is also disappearing slowly. The study undertaken during 1994-1998 with the support of International Development Research Centre (IDRC), New Delhi resulted in documentation of more than thousand therapies and 500 medicinal plants used in and around Chittoor district, Andhra Pradesh.

Present health scenario

Today the star hotel culture has spread to health care also resulting in super speciality hospitals that cater to the need of
the rich. In big cities the hospitals with all modern amenities call people to take treatment, even if they do not need any medication. These are meant only for the rich and not for the poor. The poor people go to the government hospitals for treatment. The modern treatment methods and the research are beneficial only to the rich. Nowadays’ treatment means Allopathy only. The recognized doctors having medical degrees do not like to work in villages to treat the poor. Generally they like to get back the money they spent for getting the degree. The rural people should satisfy themselves with the red color injections and white tablets they get at primary health centers if available.

In this scenario even in urban areas an awakening began regarding the costly allopathic medicines and their side effects. A search for alternative system of medicine began. The mother of all indigenous medicines is the tribal medicine practised by the ethnic communities. This is treated as superstitious and thought to be useless and acting only as placebo. Only during the past few decades the research on natural products by the western institutions brought to limelight the age-old knowledge of aboriginals. The leaves, roots, fruits, bark and seeds are the materials for tribal medicines. The knowledge about the use, properties and efficiency of the natural products is not from the books and no one gave training to them. This has developed out of necessity by trial and error method. Nature is their school and experience is their knowledge. The ancient people by observing nature and the instinct of the animals learned the treatments. Animals generally treat themselves from various ailments by eating the wild plants/parts. By seeing this man must have applied this for treating himself when he got the same type of ailment like the animals. Mankind developed his own pharmacopoeia by making his body as laboratory to experiment. The gradual process might have taken thousands of years to evolve but one thing is certain; this is passed on from one generation to other with refinement. Along with this, the nature’s fury and calamities also made the man to resort to magico-religious practices and to believe the disease is due to nature’s fury. The village deities and rituals also became a part of the treatment.

Study area
Andhra Pradesh (AP) is the fifth largest state in India, both in area and population. Chittoor district borders the state of Tamilnadu and is located in the Poini river valley. As of 1991, 73.1% of AP’s population lived in rural areas; 15.9% was a member of a scheduled caste and 6.3% was a member of scheduled tribe. The predominant tribal populations in the district are the Yanadi, Yerukala, Nakkala and the Irula tribes. Yanadi are the most populous endemic tribe of Chittoor and Nellore district with a population of approximately 267,200 in 2000.

Methodology
The Herbal Folklore Research Centre (HFRC) with a small multi-disciplinary team comprising an ethno-botanist, a social anthropologist, two trained taxonomists, an ayurvedic doctor and four field assistants who are NTFP (non-timber
forests) collectors from the local communities, made ethno-botanical surveys during 1994-1998 in the Chittoor district. The party covered 300 villages that are on the fringe area of the forest. The surveys were carried out with a non-random purposive sample of the rural population. Snowball and judgmental selection methods were used to identify community members who are knowledgeable in medicinal plants, identification and usage. The team would use either a snowball sampling method or, when necessary, go door to door to identify key respondent. The tribal medicine is not a codified system. Through experience the disease is diagnosed and treated. Even the primitive surgeries they make are their own and perform in their home setting. The author noticed that there is a strong belief in the tribals that the efficacy of the therapy is lost if it is revealed to strangers who have no belief and sympathy on nature & medicine. A brief outline of their therapies is given under observation.

**Observation and Discussion**

The tribal repository contains many medicines for the treatment of one ailment. The medicine varies according to the symptoms and secondary effects and with the tribe and place. For one disease many plants are used basing on the availability. That means all these plants are useful for curing the ailment. The people divide the diseases into two categories; (1) Related to the body, and (2) Related to mind and divine powers (Psychosomatic). The bodily ailments are treated using herbal medicines coupled with animal parts if necessary. The psychosomatic cases were treated using magico-religious practices coupled with herbal medicines.

**Fever**

If the ailment is followed by fever the first precaution they take is to avoid intake of solid food. During the survey the team documented six types of antipyretic agents such as the decoction of root tubers of *(Shatavari) Asparagus racemosus* Willd. or *(Musta) Cyperus rotundus* Linn. used by Yanadi tribe; stem of *(Amruta) Tinospora cordifolia* (Willd.) Miers. ex. Hook. f. & Thoms. or garlic bulb *Allium sativum* Linn. and dry ginger used by Sugalis and the decoction of garlic mixed with *(Bhunimba) Andrographis paniculata* (Burm. f.) Wall. ex. Nees and *(Achuka) Morinda tinctoria* Roxb. root used by Nakkala tribe.

**Headache**

For headache the tribals use either dry ginger or sandal wood paste as topical application on the forehead and *(Madana) Catunaregam spinosa* (Thunb.) Tirveng. syn. *Randia dumetorum* Lamk. fruit juice as eye drops. For pain in the scalp region they bandage either leaves of *(Chittike-saramu) Delonix elata* Gamble or *(Nirgundi) Vitex negundo* Linn. For chronic cases *(Apmarga) Achyranthes aspera* Linn., earthworm, and *(Manjariki) Ocimum basilicum* Linn. seeds made into a paste mixed with a pinch of camphor is applied on the head and forehead. If the headache is followed by fever and eye

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*(Sanskrit or Telugu names of plants are given in brackets)*
infection the juice made by pounding ginger, garlic and onion is given to drink.

**Indigestion**

For indigestion and dyspepsia (Yamini) *Trachyspermum ammi* (Linn.) Sprague syn. *Carum copticum* Hiern seed powder with a pinch of rock salt is given. If the problem persists castor oil is given on empty stomach or tamarind juice mixed with a pinch of cumin powder is given. For chronic cases, two to three tea-

spoons of (Sunamuki) *Cassia senna* Linn. var. *senna* syn. *C. angustifolia* Vahl leaf powder mixed with a pinch of salt are administered on empty stomach.

**Eye infections**

The primary treatment is to foment the affected eye using a cloth made warm by putting in the mouth. If the infection is severe i.e. red eye with burning sensation, the juice of lime or onion or fresh turmeric or (Telukondi aku) *Martynia annua*
Linn. leaf juice or (Vacha) Acorus calamus Linn. rhizome ash mixed with ginger juice is instilled in the eyes.

**Liver disorders**

For liver disorders a paste made from cooked (Amarvela) Cuscuta reflexa Roxb. plant is applied topically on the stomach. Sugali tribe administers the neem gum and opium mixture for the above disorder.

**Cough and Cold**

For cough, cold and bronchitis the tribes use many plant parts such as fruits of (Karanja) Pongamia pinnata Pierre, leaves of (Krishna dathura) Datura metel Linn. syn. D. fastuosa Linn., roots of (Kantakari) Solanum surattense Burm.f. syn. S. xanthocarpum Schrad. & Wendl., etc.

**Sexual potency**

The tribes have many drugs for sexual potency. They use snails, pigeons and sparrows along with food, and herbal drugs such as (Atmagupta) Macuna pruriens Hook. syn. M. pruriens Baker seeds, (Shatavari) Asparagus racemosus Willd. roots, (Gaja daunstree) Pedalium murex Linn. whole plant, etc.

**Toothache**

For toothache and infections the tribals apply the latex of (Alarka) Calotropis procera (Ait.) Ait.f., bark of Acacia sp., root of Achyranthes aspera Linn., or stem of (Tumburu) Zanthoxylum armatum DC. syn. Z. alatum Roxb., mixed with alum. For brushing the use of neem sticks or Pongamia sticks is a common sight and the people never take any food before brushing the teeth.

**For easy delivery**

Birth of a child is an important event in their life. All people in the hamlet take active part one way or other. They never go to hospital for delivery or rather have any access to such a luxury. Either a birth attendant if available or the old woman in the village assists in childbirth. The people generally possess the knowledge about delivery. During the process the birth attendant massages the abdomen and navel region using castor oil or root paste of Achyranthes aspera Linn. Herbal decoction made of ginger, coriander, fennel, black pepper and mustard seeds mixed in equal proportions is given to the laboring mother to hasten the pains. In Nakkala community a decoction of Bamboo leaves is administered. To remove the dead baby from the womb they mix in the above decoction asafetida, salt and some ganji (rice gruel). This facilitates expulsion of the baby within half an hour. Yanadi and Yerukala community have many therapies such as leaf decoction of Jammi (Prosopis cineraria Druce) or garlic mixed with millets and black pepper for the expulsion of dead baby from the womb. In case of Nakkala tribe, to hasten the process, a wick dipped in the root paste of (Punarnava) Boerhaavia diffusa Linn. or castor oil or soap nut juice is inserted into the vagina. If the pains are slow with wider gaps the juice of drumstick leaves mixed with salt is sipped or the decoction of Calotropis procera (Ait.) Ait.f. flowers fried in ghee is given at half an hour interval. After
delivery a decoction or extract prepared from root of (Sarapunkha) Tephrosia purpurea Pers. is given to cleanse the uterus and to ensure complete discharge of the placenta. The Nakkaras use neem leaf extract and Irula community uses the root decoction of (Kuberakshi) Caesalpinia bonduc (Linn.) Roxb. emend. Dandy & Exell along with ganji. The tribes have many post-natal therapies. For the new born baby the Yanadis administer the paste made from the dried stomach of porcupine. The dried stomach that looks like a stone is rubbed with mother’s milk and given to the baby to lick. This medicine is continued up to one year with gradual increase in dosages.

Cuts & fractures
For cuts the Yanadis use warmed Banian leaves to bandage the affected part and for bone setting and fractures, the leaves of (Sanatta) Dodonaea viscosa Linn. or Cassia sp. as topical application. For inflammations, before applying any medicine they wash the affected area either with cow’s urine or with their own urine.

Pain
For any pain the tribals give fomentation (heat therapy) to the affected part for relief using hot water rinsing or steam, or fomentation with fried salt along with topical application of castor oil or gingilly oil on the inflammation.

Snakebite
For snakebite they resort to mantras and magic before giving herbal treatment. To the snake bite victims the root of (Ishwari) Aristolochia indica Linn. or bark of (Ankolam) Alangium salviifolium (Linn.f.) Wang. or root of (Patalagaruda) Corallocarpus epigeus (Rottl. & Willd.) C. B. Clarke is given.

The indigenous people believe that man and nature are interdependent and cannot be separated by any force. Misuse of nature results in punishment and curse. The medicines given during the treatment and the food regimen they follow are marvelous and give quick relief without any major side effects. The concept of sacred groves and there by the preservation of biodiversity is greatest contribution of the primitive people to the modern world. In the same way, the belief that the misuse of nature results in punishment and curse became a boon to preserve the snakes and other minor animals. They believe—if any one kills snakes he/she becomes sterile and suffers from chronic skin infections. Tribals never uproot the tree and many trees are considered sacred.

During epidemics (Viral & Bacterial infections) the tribals resort to many magico-religious practices and combine herbal treatment and strict food regimen. These practices become a boon not only to the patient but also to the entire village where it enlightens the villagers to go in for prophylactic measures.

Conclusion
There is a need for documentation of all the tribal health practices. The deforestation really affects the life of tribals who are the forest children. Their health, wealth and culture depend on the forest and no one can alienate them from nature and it is a crime to deprive their resource
base. The modern people are responsible for spreading many diseases to the interior people through their interference and are not in a position to safeguard the primary health needs of the tribals. The research on tribal medicine seems to rely on the assumption that experts trained in modern medicine can make sense of medical practices in a remote culture and establish a partnership relation with traditional healers. The elite society who thinks that these people are illiterate and ignorant, and needs modern medication and education should understand, first, the dynamic elements of the systems before introducing any reform.

Acknowledgements

The author wishes to thank the rural and tribal people of Chittoor district, who whole-heartedly cooperated by sharing their knowledge and collecting plant material for this study. The author is also grateful to the International Development Research Centre (IDRC), Ottawa, Canada for rendering financial assistance to the Herbal Folklore Research Centre, Tirupati, Andhra Pradesh, India.

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