Medicinal Plant-Lore of Sugali Tribe of Anantapur District, Andhra Pradesh

by

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ABSTRACT: The preliminary investigations of crude during resources of sugali tribes of Anantapur district, Andhra Pradesh with their recipes, preparation of drugs, administration, usage form several centuries. Fifty plant crude drugs (species) belong to twenty nine families were collected based on folk-lore knowledge. Botanical name, family name, part used, mode of preparation and administration and purpose, for which it as been used were enumerated.

INTRODUCTION

Anantapur district situated in the south western part of Andhra Pradesh, covers an area of 19,130 sq.km. The soils are predominantly red and black cotton types, devoid of humus except in a few sheltered valleys. The climate can be described as tropical semiarid with a large number of sunny days. The mean maximum and minimum temperatures are 38.5°C and 16.8°C respectively. The average rainfall is only 53.8cm subject the direct to drought and famine, leading to changes in the occupation and food habits of the people. The forests are dry tropical south Indian mixed deciduous and southern cutch thorn types, covering 10% of the district area.

The flora of the district as been described in part by Hooker (1997), Gamble (1935) and Pullaiah and Yasodamma (1989). Medicinal plants of the region was sporadically surveyed by Reddy et al (1097). Intensive explorations were conducted in the sugali thandas during 1990-94 yielded fifty important crude drugs used for different diseases/ailments. Present paper mainly exposes the unrealised and unexplored possibilities about the hidden properties of medicinal plants and secret knowledge of the folklorists living in anantapur district. It is fact that despite many discoveries, the accumulated knowledge of the sugali tribes is extended a little to the benefit and longevity of the poor. The sugali tribes is extended a little to the benefit and longevity of the poor. The sugali tribes living in anatapur district prefer less costing holistic medical care form indigenous natural drugs for treating most of their diseases.

MATERIAL AND METHODS

Folklore information as collected from herbalists in sugali thandas (Villages) and interior rural villages in and around the forests on the usage of plant crude drugs for various diseases. The mode of administration purpose and part of the plant used and carefully recorded in audiotape recorded as well as field note booked. Based on the information, plants were collected, their herbaria were prepared and identified with the help of local floras and confirmed by comparing with authenticated specimens.
in SKU Herbarium, Anantapur, Madras Herbarium (MH), Coimbatore and central National herbarium (CAL), Calcutta. The crude drugs were screened phytochemically, using standard procedures (Amarasingham et al 1964; Weiffering 1966; Das & Bhattacharjee 1970; Chhabra et al, 1984; Gibbs 1974; Santaram 1983 and Harborne 1984).

RESULTS AND DISCUSSION

The information of crude drugs like Botanical name, family, part used, more of administration and purpose of usage are represented on Table-1. The distribution of chemical compounds in different extracts of selected crude drugs used for various diseases, supporting pharmacological properties given by chhabra et al 1984. The terminology of diseases, ailments proclaimed by tribal medicine men was collected on the field with symptoms as well. As the tribals are illiterate and with no specific knowledge on the ailments, found using same term for more than one related diseases. Hence an attempt has been made to arrive at the possible correct terminology of diseases based on the symptoms noticed in consultation with allopathic doctors and physicians. The tribals were found using the crude drugs, mainly in general ailments namely menorrhoea, leucorrhoea, jaundice, antidotes in poisonous bites, different types of fevers, cough asthma, arthritis, body aches, dental diseases, oedema, tumour, cuts and wounds, with low, skin diseases, stomach troubles and psychosis etc. Plant drugs also rarely used in abortion, anti fertility, antidiabetes, anaemia and lactation etc. The belief of tribals in crude medicine is combined with superstition of their own.

The qualitative distribution of the chemical compounds like saponins, volatile oils, carotenoids, anthocanadin glycosides, alkaloid bases, steroids/triterpenoids, anthracene glycoisds, fatty acids, catechols/gallic tannins, polyuronoids, coumarins, reducing compounds, emodins, anthcanins, iridoid and flavone glycone were observed, most of the members are used for more than one diseases or purpose, primary phytochemical evidence shows each species have specific chemical constituents. The sugali tribes possessing rich folklore information forms the prime source and exists scope to extend scientific research in further isolation and characterization of active principle involved in the pharmacological utility. The folklore claims were corroborated with phytochemical evidences of the respective crude drugs. Keeping in view of the fact potential source of medicinal plants of folklore origin need to be preserved and conserved. Attempts are being made to carry our isolation, characteristion of secondary metabolic compounds and evaluation of biological activity.

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| S.No. | Botanical name | Family          | Part used | Preparation/Administration                                                                 | Medicinal use                                                                                           |
|-------|----------------|-----------------|-----------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1     | Abrus precatorius L. | Fabaceae      | L R       | Macerated with water/drunk Root juice/oral 3 times a day 0 Sd Cotyledons powdered/oral. | Menorrhoea Snake bite antidote Aphrodisicta                                                          |
| 2     | Abutilon indicum(L) Sweet | Malavacae | L         | With garlic juice extract/oral                                                         | Malarial fevers                                                                                            |
| 3     | Acacia nilotica (L) Wild | Mimosaceae | Sb        | Heated and placed on the spot for 3 days.                                                | Furuncles, Oedema                                                                                          |
| 4     | Acalpha indica L. | Euphorbiacea   | L         | Mixed with pepper, garlic extract/oral for 3-6 times.                                    | Post natal body pains, spondylitis headache, giddiness and nausea.                                      |
| 5     | Achyranthes aspera L. | Amaranthaceae | R         | Root decoction/oral                                                                      | Snake and scorpion bite antidote                                                                        |
| 6     | Agave Americana L. | Agavaceae      | L         | Dried pulp/oral for week days                                                            | Abortifacient                                                                                            |
| 7     | Albizia lebbeck (L) Wild | Mimosaceae | Sb        | Juice (50ml) /oral for 3 times                                                          | Snake and scorpion bite antidote                                                                        |
| 8     | Ammania BacciferaL. | Lythraceae     | L         | Pulp applied on the area for 3 days Juice with dry chilies /oral for 3 days             | Oedema and skin disease Ascariasis and stomach ache.                                                    |
| 9     | Anisomeles malabarica(L) R.Br ex sims | Lamiaceae | Wp        | Burnt and vapors/inhaled decoction/oral. Leaves placed on fore head for overnight       | Psychosis,Unconsciousness Vitality Headache                                                              |
| 10    | Aristolochia bracteolate Lam. | Aristolochiaceae | Wp        | Applied paste on bitten area leaves with pepper, juice/oral for tree ties               | Snake bite antidote Ascariasis, stomach ace anti-diarrhoea                                               |
| 11    | Caesalpinia bonduc (L) Roxb. | Caesakoubuacea e | L Sd      | Leaf decoction/ oral for 3 times. Powder missed with jaggery/oral                       | Prolonged fevers, Menorrhoea promotion of sterility                                                    |
| 12    | Calotopis gigantean (L) R.Br. | Asclepiadaceae | L         | Juice/oral for vomiting                                                                 | Antitoxicosis                                                                                            |
| 13    |                |                 | Lx        | Latex applied on bitten area for 30 days                                                | Dog bite antidote                                                                                         |
| No. | Plant Name | Family | Part/Preparation | Use | Condition |
|-----|------------|--------|------------------|-----|-----------|
| 14  | Cardiospermum halicacabum L. | Sapindaceae | L | Paste applied on the part | Oedema, Arthritis, Paralysis, Otalgia, Dentalgia, Anti-inflammatory |
| 15  | Cassia uriculata L. | Caesalpinaceae | F | Decoction/oral for 3 days | Leucorrhoea |
|   |            |        | L | Young leaves chewed repeatedly | Snake bite |
| 16  | Cassia italica Lam x Andr. | Caesalpinaceae | L | Decoction/oral for 3 days | Constipation/purgative |
|   |            |        | L | Dry powder/oral with goat milk | Health tonic for 15 days |
| 17  | Celosia argentea L. | Amaranthaceae | R | Extract/oral for 3 days | Typhoid fevers |
| 18  | Citrullus colosynthis (L) | Cucurbitaceae | F | Pulp macerated with garlic, extract/oral for week days | Psychosis and anxiety |
|   |            |        | L | Fruit pulp squeezed/oral | Constipation |
| 19  | Cleome gynandra L | Cleomaceae | L | Heated fruit placed on ankle | Calcarious spur |
| 20  | Clerodendrum phlomides L.f. | Verbenaceae | L | Boiled in water and vapours/inhaled | Severe and prolonged body ache |
|   |            |        | L | Extract with pepper/oral, 3 times | Constipation and dropsy |
|   |            |        | L | Leaf extract/oral | Debility |
| 21  | Coccinia grandis (L) | Cucurbitaceae | L | Juice applied on affected part of head | Tenia capitis |
|   |            |        | L | Juice /oral and applied on the bitten area | Scorpion bite antidote |
|   |            |        | L | Juice 5 or 6 drops drops in the ear | Otalgia |
| 22  | Corallocarpus epigaeus (Rottl et willd.) Clarke | Cucurbitaceae | Rt | About 200 ml Juice /oral for vomiting | Snake bite antidote |
|   |            |        | L | Juice dropped in the ears twice a day for tree days | Otalgia |
| 23  | Corbichonia | Aizoaceae | R | Paste with cow urine/oral for week days | Yellow and white jaundice |
| No. | Species Name                  | Family       | Form (F) | Preparation and Use                                                                 | Uses                                                                 |
|-----|------------------------------|--------------|----------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 24  | *Cyperus stolonifrous* Retz  | Cyperaceae   | R        | Powder with Jaggery/oral for 40 days Powder with hibiscus Rosa-sinensis leaves/applied with coconut oil. | Leucoderma, blood Purification Dandruff                               |
| 25  | *Enicostemma axillare* (Lam.) A. Roynal | Gentianaceae | Wp       | Mixed with pepper macerated and placed around finger and dressing for 3 days          | Whitlow                                                              |
| 26  | *Euphorbia heterophylla* L.  | Euphorbiaceae | Wp       | Extract/oral 3-8 times after deliver Heated leaved applied on the part Latex applied directly on the parts | Lactation, Skin abscess, Siphilis                                    |
| 27  | *Euphorbia heyneana* spreng  | Euphorbiaceae | Wp       | With garlic, pepper macerated/oral for 3 days                                       | Dry cough in children, influenza, prolonged fevers                    |
| 28  | *Grewia tenax* (forssk.) Fiori | Tiliaceae    | R        | About 10 gm/chewed for one time                                                      | Snake bite antidote                                                  |
| 29  | *Heliotropium indicum*       | Boraginaceae | L        | Extract with jaggery/oral for one time                                              | Snake and scorpion bite antidote                                    |
| 30  | *Hibiscus ovalifolius* (Forssk) Vahl | Malvaceae   | L        | With egg, lime, turmeric and pulp mixed dressing in made daily for 5 days. Extract rubbed on the part for 3 days | Bone fractures, Sprains, Oedema, arthritis                            |
| 31  | *Impomaea Obscura* (L)       | Convolvulaceae | Wp      | Heated, placed on the spot Ker-Gahll                                                | Furuncles, Oedema for 3 days                                         |
| 32  | *Jasminum azoricum* L.      | Oleacea      | L        | Juice applied on the spot and dressed Juice 20ml/orl                                | Wounds, burns, boils skin abscess, Giddiness and nausea              |
| 33  | *Jatropha gossypifolia* L.   | Euphorbiaceae | L        | Macerated with jowar seeds applied for week days                                    | Furuncles, Haematoma                                                 |
| 34  | *Lepidagathis cristata* Wild | Acanthaceae  | I        | Ash with coconut oil, made to paste, applied on the affected part for week           | Anti –inflammatory, skin abscess, tumours                           |
| No. | Plant Name                        | Family            | Part Used | Preparation                                                                 | Conditions and Use                                                                 |
|-----|----------------------------------|-------------------|-----------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 35  | Leucas aspera (Willd) Link       | Lamiaceae         | L         | Extract with pepper, garlic/ Oral Extract dropped in the opposite ear of the painside. | Malaria, intermittent fevers, encephalitis, migraine                                  |
| 36  | Luffa tuberosa Roxb              | Cucurbitaceae     | Rt        | Juice extracted with 5 gm musambaram/oral 3 times a day for 3 days            | Aboartifacient                                                                      |
| 37  | Parkinsonia aculeate L.          | Caesapiniaceae    | L         | Extract/oral for 3 days                                                       | Anaemia, Fatigue                                                                    |
| 38  | Pedalium murex L.                | Pedaliaceae       | Wp        | Mouth gurgling with decoction.                                                | Dental caries                                                                       |
| 39  | Pergularia daemia (forssk.) Chior| Asclepiadaceae    | L         | 5,6 drops of extract dropped in the opposite ear to the bitten area for one time. Wit pepper macerated applied to knee for week days | Scorpion bite antidote, Oedema                                                       |
| 40  | Peristrophe paniculata (forssk.) Brum. | Acanthaceae | Wp        | Mixed with egg white and lime applied on the fracture and made bandage         | Bone fractures                                                                      |
| 41  | Phyllanthus amarus schum & Thonn | Euphoarbiacea     | Wp        | With clover dry ginger extract/oral for three weeks                           | Yellow and white jaundice                                                           |
| 42  | Pithecellobium dulce (Roxb) Benth| Mimosaceae        | Sb        | Extract with jaggery of Borasus/oral very often                               | Thirst                                                                              |
| 43  | Pongamia pinnata (L)Pierre       | Fabaceae          | Sb        | 20ml extract/oral for week days                                              | Dog bite antidote                                                                  |
|     |                                  |                   | F         | Powder with pepper /oral with ilk for 3 days                                  | Whooping cough                                                                      |
|     |                                  |                   | Rb        | Extract/oral for there days                                                   | Gonorrhoea                                                                          |
| 44  | Solanum surattense Burn.F.       | Solanaceae        | F         | Juice mixed with turmeric powder applied inside the eye lid. Macerated, applied and exposed to | Yellow jaundice                                                                      |
|   | Plant Name                        | Family       | Use                  | Condition                   |
|---|----------------------------------|--------------|----------------------|------------------------------|
| 45 | Syzygium cumini (L.) Skeels      | Myrtaceae    | Sb Decoction with lemon juice in honey/oral twice a day for two days | Anti diabetic                |
| 46 | Tamarindus India L.              | Caesalpiniaceae | S Macerated with water applied on bitten area Extraction/oral for 3 days | Scorpion bite antidote       |
|    |                                  |              |                      | Menorrhoea                   |
| 47 | Tephrodia purpuria (L) Pers.     | Fabaceae     | R Decoction with garlic dropped (2-3 drops) in ears for 3 days Brushing daily | Otalgia                      |
|    |                                  |              |                      | Pyorrhoea                    |
| 48 | Tridax procumbens L.             | Asteraceae   | L Juice applied on the spot | Cut and wounds               |
| 49 | Vitex negundo L.                 | Verbenacea   | L Warmed leaves applied on the part. Fresh leaves dressed on to forehead during sleep Decoction with capsicum/oral for 3 days. | Rheumatic pains              |
|    |                                  |              |                      | Headache, giddiness          |
|    |                                  |              |                      | Postnatal debility           |
| 50 | Wrightia tinctoria (Roxb) R.Br   | Apocynaceae  | L Macrated pulp with butter placed around the finger and dressed for 3 days. | Whitlow, Rheumatoid arthritis |
| 51 | Zizipus mauritiana Lam           | Rhamnaceae   | Sb Prepared paste with asafetida/oral for 3 days | Constipation in children     |