

Ethnomedicine for ulcers by the tribes of Srikakulam district, Andhra Pradesh, India

Nanda Suryanarayana Swamy¹ and T.V.V. Seetharami Reddi²✉

¹Govt. Degree College, Amadalavalasa- 532185, Andhra Pradesh, India

²Former Professor, Department of Botany, Andhra University, Visakhapatnam- 530003, Andhra Pradesh, India
R/o Plot No. 232 (HIG), Sector 4, MVP Colony, Visakhapatnam- 530017, Andhra Pradesh, India

✉[redidtyvvs@rediffmail.com]

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ABSTRACT

The paper deals with 34 species of plants used for curing ulcers by the tribes of Srikakulam district, Andhra Pradesh.

INTRODUCTION

Srikakulam district, the northernmost part of the Andhra Pradesh state, lies between 18°5'-19°12' N and 83°32'-84°47' E. It is bounded by Orissa state in the North and Bay of Bengal in the East and South-East and Vizianagaram district in the West and South-West. It is inhabited by 166,118 tribal people comprising of 6.15 per cent of the population (Census, 2011). The tribal communities include Gadaba, Jatapu, Konda dora, Kuttiya, Savara and Yerukula. Though there are publications on ulcers in different parts of India by different tribes exclusive studies on the tribes of Srikakulam district were not taken up necessitating the present study.

MATERIALS AND METHODS

The ethnomedicinal data presented here is the outcome of a series of intensive field studies conducted over a period of

five years (1997-2001) in 74 interior tribal pockets. The field trips were planned in such a way, to cover the selected tribal pockets in different seasons of the year. Each field trip was of 5-7 days of duration covering 5-6 pockets a day. In addition to the randomly selected informants in the field, tribal villages and shandies, 41 vaidhyas/medicine men contributed their ethnomedicinal knowledge to the present study. Each medicinal practice was cross-checked with at least 4-5 informants. Voucher specimens were collected, herbarium specimens were prepared and deposited in the Herbarium of Department of Botany, Andhra University, Visakhapatnam (AUV).

ENUMERATION

The plants are enumerated alphabetically with valid botanical name followed by family and vernacular name (VN), English name, locality and voucher specimen number. Each ethnomedicinal practice is provided with the part(s) used, method of preparation of the drug, mode of administration and dosage.

Aegle marmelos (L.) Correa Rutaceae. VN: Maredu, E: Bael. Karakavalasa, 1174.

Ten ml of leaf infusion is taken along with 250 ml of water for about 15 days in morning to cure peptic ulcer.

Anacardium occidentale L. Anacardiaceae. VN: Jeedi, E: Cashew. Antikonda, 1358.

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Stem bark cooked in *Pongamia pinnata* oil is applied on ulcers till cured.

Azadirachta indica A.Juss. Meliaceae. VN: Yapachettu, E: Neem. Burna Konda, 1837.

Leaf paste is applied on ulcers.

Biophytum nervifolium Thwaites Oxalidaceae. VN: Marugumokka, E: Little tree plant. Darapadu, 1849.

Leaf paste along with garlic is applied externally on ulcers.

Buchanania lanzan Spr. Anacardiaceae. VN: Jarumamidi, E: Almondette. Samarilli, 1764.

Paste of stem bark mixed with castor oil is applied on ulcers.

Calycopteris floribunda (Roxb.) Lam. ex Poit. Combretaceae. VN: Geddaputika, E: Paper flower climber. Donubai, 1223.

Paste of root bark is applied on ulcers.

Canscora diffusa (Vahl) R.Br. ex Roem. & Schult. Gentianaceae. VN: Janajad, E: Chang-bato. Chinnagora, 1284.

Whole plant is ground with garlic and the paste is applied on ulcers.

Carica papaya L. Caricaceae. VN: Boppayi, E: Papaya. Korada, 1655.

Fresh latex of unripe fruits is applied on the ulcers.

Casearia elliptica Willd. Flacourtiaceae. VN: Giridi chettu, E: Chilla. Garalapadu, 1486.

Stem bark powder is applied on ulcers.

Catunaregam spinosa (Thunb.) Tirveng. Rubiaceae. VN: Manga chettu, E: Mountain pomegranate. Kothuru, 1459.

Roots are crushed with water and turmeric and the filtered extract mixed with goat's milk is administered in doses of 2 spoonfuls twice a day for 9 days to treat ulcers in intestine.

Cayratia auriculata (Roxb.) Gamble Vitaceae. VN: Mura palleru, E: Kali vel. Battili, 1146.

Leaves are ground with water and turmeric powder and the paste is applied on ulcers.

Centella asiatica (L.) Urban Apiaceae. VN: Kudakasaga, E: Asiatic pennywort. Polavaram, 1494.

The whole plant is crushed with water, turmeric and black pepper; and the extract is gargled for mouth ulcers.

Cissampelos pareira L. Menispermaceae. VN: Isaboddi, E: Velvet leaf. Baleru, 1049.

Root powder is given with water in 5 gm dose once a day for about 15-20 days to treat peptic ulcer.

Cleome gynandra L. Cleomaceae. VN: Aayitikura, E: Shona cabbage. Althi, 1477.

50 ml of stem juice is given once a day for 3 days to cure peptic ulcer.

Cyperus rotundus L. Cyperaceae. VN: Thunga, E: Purple Nutsedge. Antharaba, 1313.

Rhizome bearing fragment of tubers are made into poultice and applied on the ulcers.

Elephantopus scaber L. Asteraceae. VN: Yedduadugu, E: Elephant's Foot. Nutiloba, 1405.

10 ml root extract is given twice a day for 3-5 days for ulcers in the mouth.

Ficus hispida L.f. Moraceae. VN: Bemmamedi, E: Hairy fig. Chinthapalli, 1973.

Stem bark extract mixed with black pepper is administered in doses of 15 ml once a day for 5 days to treat intestinal ulcers.

Holarrhena antidysenterica (Roxb. ex Fleming) Wall. Apocynaceae. VN: Palabariki, E: Country mallow. Peddalogidi, 2120.

Root bark along with that of *Hemidesmus indicus* is made into paste with water and pills of 2 gm are prepared. Two pills are administered twice a day for stomach ulcers till cured.

Holoptelea integrifolia (Roxb.) Planch. Ulmaceae. VN: Navili, E: Indian elm. Jadupalli, 1740.

Juice of boiled stem bark is applied on ulcers.

Hyptis suaveolens (L.) Poit. Lamiaceae. VN: Seematulsi, E: Pig nut. Banapuram, 1586.

Seed paste is applied on ulcers.

Kydia calycina Roxb. Malvaceae. VN: Adavipatti, E: Kydia. Jadupalli, 1103.

Stem bark paste or leaf paste is applied on ulcers.

Lantana camara L. Verbenaceae. VN: Gajukampa, E: Lantana. Temburu, 1911.

Leaf juice is applied on ulcers in the mouth.

Maytenus emarginata (Willd.) Ding Hou Celastraceae. VN: Dantepu, E: Thorny staff tree. Saravakota, 2290.

Leaf paste is applied on ulcers.

Mitragyna parvifolia (Roxb.) Korth. Rubiaceae. VN: Rudraganapa, E: Kadamb tree. Bejji, 1891.

Stem bark is crushed with that of *Haldina cordifolia* and water and the extract is administered in 10 ml dose twice a day for 3 days for peptic ulcer.

Nyctanthes arbor-tristis L. Oleaceae. VN: Kisteteti, E: Night flowering jasmine. Ashokam, 1130.

Fresh bark of the basal part of the tree trunk is chewed and saliva is held inside the mouth for 3-5 minutes to treat ulcers. This is repeated frequently at an interval of 4 hours for 2 days.

Phyllanthus emblica L. Euphorbiaceae. VN: Boddamla, E: Indian gooseberry. Raiwada, 1727.

Five gm of pericarp paste is given on an empty stomach for curing stomach ulcers.

Pongamia pinnata (L.) Pierre Fabaceae. VN: Kanuga, E: Indian beech. Sudirayi konda, 2157.

Stem bark paste mixed with leaves paste is applied on head to cure ulcers.

Pueraria tuberosa DC. Fabaceae. VN: Bhuchakkaragadda, E: Kudzu. Maulava, 2202.

Tuberous roots are burnt to ash; and the ash in doses of 2 gm with 20 gm of pericarp of date palm (*Phoenix dactylifera*) fruits with jaggery is administered twice a day for 10 days to treat peptic ulcer.

Rubia cordifolia L. Rubiaceae. VN: Kurramal, E: Common madder. Mulapeta, 1728.

Leaf decoction is used to gargle periodically at an interval of 4 hours to treat ulcers in the mouth.

Root paste is applied on ulcers.

Sesamum indicum L. Pedaliaceae. VN: Nuvvulu, E: Sesame. Amalapadu, 2233.

Oil of seeds is used to gargle before bedtime and early morning to treat ulcers in the mouth.

Solena heterophylla Lour. Cucurbitaceae. VN: Adavidhonda, E: Creeping cucumber. Peddakedari, 2260.

10 ml of root juice is given twice a day for about 20 days to treat peptic ulcer.

Sterculia urens Roxb. Sterculiaceae. VN: Kondatamara, E: Gum karaya. Kowsalyametta, 2242.

Stem bark (10 gm) is ground with turmeric (5 gm) and the fine powder obtained is mildly heated with water and is administered in 10 ml doses twice a day for 5 days for peptic ulcer.

Toddalia asiatica (L.) Lam. Rutaceae. VN: Varragokiri, E: Orange climber. Janantrakota, 2266.

Root bark decoction is gargled thrice a day after having food for 3 days to treat ulcers in the mouth.

Waltheria indica L. Sterculiaceae. VN: Nallabenda, E: Sleepy morning. Baligam, 1172.

The whole plant powder is applied externally for drying and healing of ulcers.

RESULTS AND DISCUSSION

The paper deals with 34 species of plants covering 34 genera and 28 families used by the tribes of Srikakulam district for curing ulcers. Morphological analysis showed the maximum

utilization of stem bark in 10 practices followed by leaf (7), root (5), whole plant and root bark (3 each), tubers (2), and stem, seed, pericarp, latex and oil in one practice each. They are administered either in the form of powder, paste, juice, poultice, decoction, ash, along with garlic, goat's milk, jaggery and castor oil. Plants used for similar purpose in different parts of India and Nepal are *Solena heterophylla* by Chepang, Magar, Tamang and Tharu tribes of Chitwan district, Nepal (Manandhar, 1990); *Phyllanthus emblica*, *Waltheria indica* by Yanadi, Nakkala, Irula, Yerukala, Sugali/Lambadi and Chenchu tribes of Chittoor district, Andhra Pradesh (Vedavathy, Sudhakar & Mrdula, 1997); *Cissampelos pareira* by Valaya tribals of Virudunagar district, Tamil Nadu (Rajendran, Sekar & Sundaresan, 2002) and Mizo, Maras, Lai, Chakama, Bru, Pand, Bawn and Magh tribes of Mizoram (Shukla et al., 2014); *Catunaregam spinosa* by Kattunayakas tribe of Nilgiris district, Tamil Nadu (Udayan et al., 2007); *Nyctanthes arbor-tristis* by the Juang, Kolha and Munda tribes of Keonjhar district, Orissa (Satapathy, 2008); *Aegle marmelos*, *Ficus hispida*, *Maytenus emarginata* by the ethnic people of Medak district, Andhra Pradesh (Reddy, Trimurthulu & Reddy, 2010); *Phyllanthus emblica*, *Toddalia asiatica* by Malasar tribe of Western Ghats, Tamil Nadu (Murugesan, Balasubramaniam & Arumugasamy, 2011); *Anacardium occidentale*, *Azadirachta indica*, *Ficus hispida* by folklore in Madhya Pradesh (Jadhav, 2017); *Ficus hispida* by people in Shivalik Range of Panchkula, Haryana (Balakrishna et al., 2018) and *Anacardium occidentale*, *Sesamum indicum* by Nyishi tribe of Pakke-Kessang district, Arunachal Pradesh (Balakrishna et al., 2021). The knowledge of ethnomedicinal uses of medicinal plants lead to opening up ways for effective utilization of herbal medicines in future. Further work in this direction may help to discover new drugs to cure ulcers.

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