Effect of *Pergularia daemia* (Forssk.) Chiov. leaf latex in the treatment of jaundice at Bargarh district in Orissa

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Received 08.09.2008; revised 26.11.2009

*Pergularia daemia*, locally called *Uturli*, is a climber having pubescent, opposite leaves containing milky latex. Found in waste, neglected places near domestic area is used in several diseases like asthma, ammenorrhoea, abortion, scorpion bite, fits, smooth delivery, rheumatisms, diarrohoea, piles, boils, oedema, headache, emetic in bronchial congestion, muscular pain in animals, eye diseases in cattle, etc. The work is based on its herbal medicinal use against jaundice in Bargarh district, Orissa.

**Keywords:** *Pergularia daemia*, Traditional medicine, Milky latex, Jaundice, Sahanra, Saora, Binjhal, Kondh, Gond, Medicinal plants, Orissa

**IPC Int. Cl.** 8: A61K36/00, A61P1/08, A61P1/14, A61P1/16

Plants play a vital role for existence of human and animal life on earth. Tribal medicine or traditional medicine plays a vital role in the primary healthcare of tribal as well as rural people. India is mainly a tropical one with over 53 million tribals belonging to over 550 tribal communities that come under 227 linguistic groups. The World Health Organization (WHO) has listed 21,000 plant species to be of medicinal use in the world. In India, about 2,500 plant species are used for medicinal purpose by traditional healers. About 85% of the rural population of India depends on wild plants for their primary healthcare and treatment of various ailments. All these traditional knowledge on herbal medicines possessed by them have been transmitted from generation to generation. However, folklore and traditional knowledge is in the process of degeneration due to disruption of forest covers and uprooting of tribal population due to industrialization. So, there is an urgent need to document the available information in detail for future application and scientific investigation. Bargarh district lies between 20° 40’ and 21° 49’ N latitude and 82° 45’ and 83° 48’ E longitude. It covers an area of 5,837 sq km. The place has a general monotony of tropical dry deciduous types monsoon vegetation. This area is floristically rich and harbours a wide range of biodiversity at the famous Gandhamardan hill range, Barapahad hill range and Jhanipahad forest. The tribal population in the district is 2,60,091. The prominent tribal groups of the district are Sahanra (Saora), Binjhal, Kondh, and Gond. The tribals of the district are provided with a good traditional knowledge. People of remote villages and tribal areas are dependant upon the practices of folk medicines. *Pergularia daemia* (Forssk.) Chiov. (Asclepiadaceae) is a climbing herb. Locally called as *Uturla* and *Uturdi*, is known as *Uturuli, Uturudi, Hanturi* and *Imadi* in Oriya; *Utrani* and *Jutuka* in Hindi; *Kurutakah* and *Uttamarani* in Sanskrit. In English it is called as hair knot plant, whitlow plant.

**Methodology**

The plant species has been collected from waste places as well as from peripheral forest localities in Bargarh district. The collected specimen has been identified with standard floras. The plant species has been deposited in the herbarium of Botany Department, Panchayat College, Bargarh.
Observation

The plant species is used in traditional medicine since long. Leaf juice with honey and ginger oil is used to cure fever, headache, cough, tiredness, shivering, delirium and biliousness by the Irulars in Tamil Nadu. Leaf is used to cure diarrhoea, wounds and urinary complaints. Mixture of leaf and root paste is given for headache. Flowers are used to cure cough. Root paste is used to cure stomach pain by Koyas and Valmikis. Leaves with other plant parts are used to cure bone fracture by Koyas. Latex is applied to cure boil, lymph gland and migraine by Konda doras and Nuka doras of Andhra Pradesh. Lodhas women during menstrual cycle use root bark as contraceptive. Latex is used for treatment of leucoderma. Tender shoot tips along with the shoot tips of Cissus quandrangula, Tinospora cordifolia, Byttneria herbacea, tuber of Curculigo orchoides, black pepper and garlic are used to cure impaction (caused by over bleeding and faulty feeds) in case of cattle in Warangal district of Andhra Pradesh. Plant latex mixed with a pinch of salt is used as eye wash to treat eye complaints among domestic animals. Crushed leaves mixed with cattle feed given to milching cattle to increase milk yield in Bhadrad district of Orissa. Leaf juice is used in diarrhoea, asthma and applied in rheumatic swellings by the tribes such as Rabri, Bharwad, Murdhari and Banjara of Shetrunjaya hill of Palitana, Gujarat. Leaf paste is applied in eyes to cure any type disease of cattle. Leaf paste is also used to cure muscular pain in animals by the tribes like Halakki, Lambani, Kadukuruba, Pindari and Korcha of Northeastern Karnataka. Leaf juice is employed in asthma, piles and boils by the tribes like Koli, Vaghari, Maldhari and Harijans of Victoria Park (Reserved forest) of Bhavnagar, Gujarat. Latex is applied to cure headache by the tribes like Chenchus, Yerukalas, Yanadis and Sugalis of Guntur district, Andhra Pradesh. Leaf paste is applied to cure wound. Leaf decoction is used to cure urinary complaints. Flowers and inflorescence are used as vegetable in Dadar, Nagar Haveli and Daman. Leaves are used to cure asthma and cough in Saurashtra. Leaves are consumed with black pepper to suppress oedema by Sugalis of Gooty forests in Andhra Pradesh. Leaves are used as emetic in bronchial congestion by Machhi, Koli, Tandel, Bhandari, Dhubia, Kundi and Rohit tribes of coastal areas in South Gujarat. Leaf and root are together used in leprotic wound in Barghar district of Orissa.

Root is used in amenorrhoea by the scheduled caste people like Ghasi, Dhoba, Dom and Gonda and tribes like Banjara, Bhottada, Bhunja, Binjhal, Dal, Gond, Kondh, Mirdha, Munda, Paraja, Saura and Sabara in Kalahandi district of Orissa.

Leaf is used in fits, scorpion bite, abortion and for easy delivery by the Chenchus and Yanadis of Gundlabrahmeswaram wildlife sanctuary, Andhra Pradesh. Leaves are used in spleen and liver enlargement. Leaf extract is used to cure earache. Leaf juice is used to cure piles. Latex is used to cure leucoderma. Leaf juice is used to cure toothache. Latex is applied to cure ringworm and scabies by Kothada tribes of Sabarkantha of Gujarat. Whole plant is used to cure rheumatism in Madhya Pradesh and Chattisgarh. Plant extract is used in uterine and menstrual disorders and facilitation parturition in Kanyakumari district of Tamil Nadu. Leaf juice is taken to relieve acute stomach pain by Thottianaickans of Tiruchirappalli in Tamil Nadu. Root paste is taken for smooth delivery by the tribes like Sahanra (Saora) and Mirdha of Ramkhol village forest of Barapahad hill range in Barghar district, Orissa. Latex is inhaled to cure headache. Flowers with other plant parts are taken to cure asthma by Maldharis of Sasan Gir forest in Junagadh district, Gujarat. Leaf juice is used to cure eye troubles, to increase lactation and induce abortion by Kondha, Gonda and Sabara tribes of Kalahandi district, Orissa. Leaves with other plant parts are fed to cattle to cure debility and general weakness. Leaf extract with cow urine is applied on the nose to cure bronchitis. Warm leaf paste is applied to cure inflammation in cattle. Leaf paste with other ingredients is given to cattle to cure lung embolisma in southern districts of Tamil Nadu. Bath with leaf decoction is taken to cure body pain in southern districts of Tamil Nadu.

Results and discussion

The ethnomedicinal value for treatment of jaundice was observed in Barghar district during 1996-97. Though the plant is known to the tribes and other rural people, its medicinal utility for jaundice was not well known among these people. The milky juice/latex are effective against jaundice. The plant specimen has been collected from waste and neglected places near domestic area of villages inside and outside the forest areas. The milky latex/latex is taken with curd. It is a single dose...
medicine, but in chronic cases, a second dose can also be administered. The dose of the medicine depends upon the age and health condition of the patient suffering from jaundice. The milky leaf juice oozes out when the petiole is detached from the lamina. It is collected early in the morning. It is collected in a pot having about a cup of curd in it. The leaf juice is mixed with the curd thoroughly. It is taken once in the morning in empty stomach. The patient is also advised not to take any kind of food at least for an hour after taking the medicine.

After 12 hrs of administration of the medicine, patient usually urinates gradually clear urine instead of yellow colour urine. The bilirubin content of blood decreases rapidly. The patient become all right within 7 days. But the patient is advised to take rest at least for a period of one month. The bile/serum bilirubin content of the blood of the patient is clinically checked and dose is ascertained before administering the medicine. Again, the serum bilirubin content is tested after 3-5 days. The data is for case study of the efficacy of the herbal dose. Almost all cases have come to normalcy after the treatment. The tribals and other inhabitants of the area have a good knowledge about the uses of medicinal plants available in the region. But they are not interested to share their traditional knowledge with others. Thereby this knowledge is gradually ending with the end of traditional knowledge with others. Thereby this knowledge is gradually ending with the end of

Acknowledgement

Authors are thankful to Prof NB Pradhan, Retd Reader in Botany for his kind help during identification of plant species and preparation of the paper. Authors are also thankful to Prof G Biswal Retd Reader in Botany and other informants, who have shared their valuable knowledge and given their consent for compilation on medicinal uses of the plant during discussion.

References