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Ethnomedicinal uses of plants related to delivery problem in Bargarh district of western Odisha

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Abstract

An ethno botanical survey was carried out in remote villages of Bargarh district of western Odisha. The investigation provides information on ethnomedicinal uses of 14 plants used by the tribal and rural people of Bargarh district of western Odisha against delivery problem. Out of many plant species traditionally used by the villagers as medicines, 14 plant species belonging to 14 genera and 10 families are identified and their uses are described for treatment for smooth delivery, post-natal pain, back pain and post-natal weakness.

Keywords: Ethnomedicine; Delivery problem; Tribals; Bargarh district

1. Introduction

India is one of the 12 mega biodiversity countries of the world and comprises of 2 hotspots viz. Western Ghats and Eastern Ghats. India is also blessed with rich and diverse heritage, culture and tradition. It is a veritable emporium of medicinal and aromatic plants [1]. In India, medicinal plants have long been used to treat different kinds of diseases. However most of the uses of wild medicinal plants made by tribals are not known to the other community people. The tribal people have been preparing medicines from the available species of plants, which are used extensively to treat common diseases. The traditional healers who use herbal medicines to cure several ailments and diseases use locally available plants, animals or both and minerals as medicines. The tribal women also possess considerable knowledge about various uses of herbs available in their surroundings. The plants used in traditional systems are mostly collected from the wild. These plants are easily available in wild, but they can also be easily grown or domesticated in the kitchen gardens. Documentation of these local knowledge using medicinal plants may have high impact from a future bioeconomic point of view [2].

2. Study Area

Odisha has of 30 districts. Western Odisha has 10 districts and Bargarh is one among them. The district lies between 20° 43' and 21° 41' North latitude and between 82° 39' and 83° 58' East longitude and is extended over an area of approximately 5837 sq km. The vegetation in the district ranges from tropical semi-evergreen to dry-deciduous to grasslands with varying species composition in each type. The use of medicinal plants as herbal remedy is a part of traditional heritage in many rural areas of Bargarh district especially among the forest dwellers. The indigenous knowledge about the use of plant resources for the cure of various human ailments is being used since time immemorial and still believed to persist among both tribals and rural people of Bargarh district even today. The district has 13 ethnic tribes namely *Sahanra (Soara)*, *Binjhal*, *Gond*, *Kondh*, *Munda*, *Kuli*, *Kalanga*, *Oran*, *Mirdha*, *Dharua*, *Kisan*, *Kharia* and *Parja*. They possess vast knowledge on medicinal plants available in their localities. Traditional uses of plants in curing different diseases by tribals in Bargarh district have been recorded earlier by some authors [3-14] but still there is many more items of indigenous knowledge about practice of medicine, pharmacy, pharmacology and preservation of knowledge of herbal medicines which need to be documented, evaluated and therapeutically proved for strengthening the rural primary health care. An attempt has been made to highlights ethnomedicinal uses of plants against delivery problem in the district, which has not been studied earlier. The area under study is still untapped in this regard. The present is an attempt to fill up this lacuna.

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3. Materials and Methods

An ethnobotanical survey was conducted during 2006-2008 in remote villages to identify the common and cultivated medicinal plants and their uses by the tribals and rural people in Bargarh district. The local names of the plants, parts used, dosages and the mode of preparations of drugs were recorded. The voucher specimens for the species were collected and identified with the help of standard Flora books ^[15, 16]. The voucher specimens are deposited in the Department of Botany, Panchayat College, Bargarh.

4. Results and Discussion

A total of 14 plant species are listed and presented in alphabetical order by their scientific names along with their families followed by vernacular names, locality, dosages and mode of application as reported by the tribal traditional healers and experienced men and women.

1. *Aristolochia indica* L. (Aristolochiaceae), 'Pan-airi', Ramkhol-731

Equal amount of root and leaves are crushed together and the paste (5g) is taken 2 times to get relief from post-delivery pain.

2. *Diplocyclos palmatus* (L.) Jeffrey (Cucurbitaceae), 'Shivling', Ainlapali-297

Root is collected during solar or lunar eclipse. It is tied to left arm of a woman during labour pain for smooth delivery.

3. *Erythrina suberosa* Roxb. (Fabaceae), 'Paldhua', Ramkhol-372

Root is collected on Saturday or Sunday and tied on the waist of pregnant woman during labour pain for smooth delivery.

4. *Ficus racemosa* L (Moraceae), 'Dumer', Ramkhol-249

Equal amount of root of the plant, *Ficus religiosa* bark, *Raphanus sativus* seeds and *Ficus benghalensis* bark are crushed together and boiled in water to obtain decoction. The decoction (half a cup) is taken once during labour pain for smooth delivery.

5. *Helicteres isora* L. (Sterculiaceae), 'Murmuri', Nrusinghnath-184

Root (4 inches) paste is taken once daily for 3 days to cure post-natal weakness.

6. *Heliotropium indicum* L. (Boraginaceae), 'Hatisundh', Nrusinghnath-422

Root of the plant crushed with polished rice washed water and the paste (1-2 teaspoon) is taken twice daily to cure post-natal pain.

7. *Marsdenia tenacissima* (Roxb.) Moon (Apocynaceae), 'Medha-mud', Kuthikhhol-581

Root of the plant crushed with polished rice washed water and the paste (2-3 teaspoon) is taken twice daily to cure post-natal pain.

8. *Pergularia daemia* (Forssk.) Chiov. (Apocynaceae), 'Uturli', Ainlapali-746

Equal amount of leaves and roots are crushed together and applied over navel of the pregnant woman for smooth delivery during labour pain.

9. *Plumbago zeylanica* L (Plumabaginaceae), 'Dhobchintamul', Nrusinghnath-42

Root powder (5g) with honey is taken during labour pain for smooth delivery.

10. *Ricinus communis* L. (Euphorbiaceae), 'Jada', Beherapali-231

Seeds of the plant and polished rice are grinded with water and is applied externally on the affected part to cure back-pain after delivery.

11. *Sida acuta* Burm.f. (Malvaceae), 'Bajarmuli', Banjipali-244

During labour pain the root of the plant is collected, washed with water and cut into seven pieces and these pieces are touched across the whole body from head to toe for seven times to induce smooth delivery.

12. *Tinospora cordifolia* (Willd.) Miers (Menispermaceae), 'Gulchi', Ramkhol-232

Stem (250g) is boiled in water (one litre) to obtain a decoction (250 ml). The decoction (one cup) is taken during delivery pain to induce smooth delivery.

13. *Tagetes erecta* L. (Asteraceae), 'Ganja', Barhaguda-263

A piece of root of the plant is collected during labour pain. It is cut into seven pieces and touched to the body of the patient from head to toe.

14. *Trigonella foenum-graecum* L. (Fabaceae), 'Methi', Beherapali-236

Fruit powder (2gm) with warm water is taken 3 times daily to cure post-natal pain.

A total of 14 plant species under 14 genera and 10 families covering 14 prescriptions and 4 different categories of problems related to delivery are reported in this paper. Out of 14 four prescription are taken orally as paste, 2 numbers as decoction, 2 as powder, two numbers are used as paste applied over the body and 4 are either touched to the body or tied on the body to release the patient from different problems during or after delivery.

The district Bargarh has been recognized as a rich store-house of medicinal plants. Through ages, people of the district are utilizing this plant resource to cure various ailments. Present study finds that increasing demand of medicinal plants has resulted in rapid dwindling of these natural resources and there is an urgent need of conservation and sustainable rearing of medicinal plants. There are some plants which are panacea for most human ailments. Their documentation along with protection of this indigenous knowledge related to the use of medicinal plant is the need of the hour.

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