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Research Article

Ethnomedicinal Survey Report on Plants of Tribal Regions of Anuppur

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Abstract

An Ethnomedicinal survey was conducted on forestry and river regions Anuppur, tribal area of Madhya Pradesh, since this area is full of medicinal flora but their identification and continues study are lacking. Present aim of the study is to explore the tribal region having thousands of unidentified species. Ethnomedicinal data were collected using field observation and conductance of interviews of traditional medicine practitioners, herb sellers, vaidya and some tribal medicinal plant collectors. The parts of plants used are roots, flowers, leaves, rhizomes, stem, seeds and sometimes entire herb either in the form of raw water extract or in the form of nutraceuticals in daily food recipe. The information which we have collected is very beneficial for new drug discovery as well as public health because in current scenario natural products are most widely and frequently used medicinal product.

Keywords: Ethnomedicinal; Tribal; Natural product; Survey

Introduction

Despite of development in the field of modern medicine system traditional practitioner and their treatment still remains the major resource for treatment of health issue because they are cost effective and attainable [1,2]. Ethnobotanical survey play an major role in the development of modern medicine system, documentation and survey of natural resources of specified community is an important tools for utilization of raw material and plant flora [3,4]. Currently Ethno medicines have gained popularity in most of the developed and developing countries. The indigenous people living in different parts of the globe uses medicinal plants as sources of medicine for the treatment of various disease [5,6]. During early stage of development mankind used natural materials that knowledge was passed generations by generations and now this information are listed in deferent ayurvedic or natural plant books. In tropical and rural area of most of the world lacking healthcares facility and medicine supply Semi-regulated and Non-regulated countries like Pakistan, Sri Lanka, India and some of African country having unregistered medical practitioner giving local herb for treatment of various disease. Around 422,000 angiosperms are found worldwide in which only 50,000 plants species are used in medicinal purposes. Around 5,000 plants have been phytochemicaly investigated therefore ethnobotany can play major role in conserving the natural sources and also medicinal plant diversity [7,8]. Ethnomedicinal studies are today recognized as the most effective method of identifying newer medicinal plants for possible extraction of beneficial bioactive compounds [9,10]. The aim of this survey was to collect and identify the plant materials intended for ethno pharmacological application by the tribal communities of the Anuppur and Shahdol, located in the upper part of Madhya Pradesh and central of the India this area is nearby area of Chhattisgarh full of nature and ethnoflora. The natives of these two districts are tribes and predominantly dependent in tribal folk's medicinal system although despite of numerous opportunities these two district lacking proper growth and study of natural and herbal medicinal system, we have documented the herbal preparation their local names, and uses of plants. Hopefully the result of current study will illustrate the importance of documentation of traditional knowledge as well as local medicinal plants for the development of Ethnomedicinal drugs to treat human ailments.

Materials and Methods

The present Ethnomedicinal survey conducted in tribal peoples of Anuppur. Anuppur is a town in northeastern Madhya Pradesh state of central India, located at 23.1°N 81.68°E. It has an average elevation of 505 meters. The Son River and some of its tributaries run through Anuppur. Anuppur District is a tribal dominated district. Previously, it was in Shahdol district (Figure 1) [11].

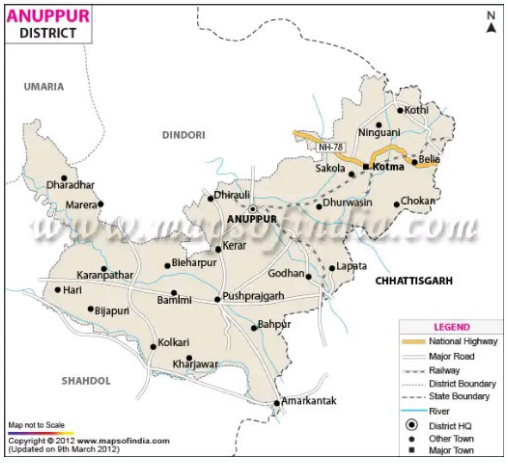

Figure 1: The present ethnomedicinal survey conducted in tribal peoples of Anuppur.

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Field survey

Regular Ethnomedicinal survey was conducted from May 2014 to March 2015 on regular basis our primary aim was to collect and document Ethnobotanical knowledge from the tribal peoples. We have gone through extensive survey and find out the tribe folks medical practionner we informed them that it was an academic research and investigation was only for our research purposes, not for any commercial or other benefits. We asked relevant questions regarding the Ethnomedicinal use, parts used, and the local name of the plants, herbal formulation methods, and diseases treated administration, and side effects if any. Actually tribals are not prominent in Hindi therefore we have gone through local language of surrounding area of Anuppur.

Plant collection and identification

During investigation the informants use the local name of the plants for specific diseases. The plants are collected regularly from Amarkantak, jaithari and Khuntatola area of Anuppur, after confirming plant identity plants were collected and photographed. The vouchered Herbarium specimen was prepared and studied at Department of Botany, Banaras Hindu University, and Varanasi, India. In our survey it was found that almost 90% to 95% of plants described by the local tribes were wild, and the remaining was cultivated.

Mode of administration and preparation of Ethnomedicines

Almost 80% of Ethnomedicines were administrated internally, and in the survey, local tribes described different methods for herbal drug preparation to treat different kinds of human ail-ments. The most common was decoction followed by powder, direct eating, and topical application.

Iar study

For determination of variability in Ethnomedicinal plant Informant Agreement Ratio (IAR) method was used. IAR study is used to determine agreement between informants and specific usage of Ethnomedicinal. It gives us information about uniformity of the informant's indications. This is one of the widely used methods for analyzing quantitative data in ethno pharmacology. Agreement factor ranges from 0 to 1. A higher values are near to 1 indicating large proportion plants used by of the tribes , while a low value indicates that the information gathered by tribes are not used in general (Table 1) [12-14].

Results and Discussion

Present study reveals that herbs are still a major source of medicine for tribal communities of most of the parts of our surveyed area, as modern health care facilities are still not adequate. This report may represents a useful and long-lasting document, which can contribute to preserve knowledge on the use of medicinal plants in this region and also stimulate the interest of future generations on traditional healing practices. The information provided in the paper is not complete still there is a scope to initiate further comprehensive Ethnomedicinal survey among the tribes for more relevant information. Our study also reveals that common medicinal plants are used for the overall treatment of various diseases. In our study, many of the plants reported have already been well-published for their Ethnomedicinal importance; comparison of our study with relevance to other researchers in other parts of the world supported many findings, like it is a commonly used Chinese folk medicine for colds, whooping cough, nasal allergy, malaria and asthma [15,16]. Several pharmacological activities of Bauhinia purpurea Linn extracts have been reported including anti-inflammatory, antioxidant ant allergic and Anthelmintic and antiamoebic [17,18]. Gulbakawali used in eye disorders [19,20]. Apart from that most of the plants are well documented but still lots of work can be done to explore effects which was stated by tribes and not listed as well as documented till now.

Conclusion

Aur study can open a window for tribals and local healers for combining modern medical practice. The medicated claims found in the study need to be evaluated through phytochemicaly and pharmacological screening to discover their potential activity and also a Control programs for invasive species should be implemented in the study area. Therefore Future investigations should be carried out in order to ensure safe therapy concerning medicinal plants because on raw data basis it cannot be incorporated in modern system of medicine.

Table 1: For determination of variability in ethnomedicinal plant informant agreement ratio (IAR) method.

Sr.No.	Local Name	Scientific Name	Ethnomedicinal Uses	Parts Used
1.	Newari	Centipeda minima Linn	Joint Pain, Sexual disability	Whole herb
2.	Patal Kumhda	Pueraria tuberosa	UTI, strengthens the reproductive system, Lactation	Rhizome
3.	Banadrak	Zingiber zerumbet	Wound healing, Gastric discomfort	Rhizomes
4.	Ban Pyaj	Drimia Indica	Dysmenorrhea, Skin Disease	Rhizomes
5.	Kapoori	Hemidesmus Indicus	Syphilis, Gout	Roots
6.	Kulekhara	Hygrophila Spinosa	Anemia, Anthelmintic	Leaves
7.	Kaniyar	Bauhinia purpurea	Laxative, Arthritis	Leaves, Bark
8.	Kalpnath	Andrographis paniculata	Hepatoprotective, Digestive	Leaves
9.	Neelkanth	Clitoria ternatea	In Menstrual bleeding	Leaves
10.	Nagdamini	Crinum asiaticum	Poisoning, Fractured Bone	Leaves
11.	Atikakhi	Abutilon indicum	Paralysis, CNS disorder	Leaves, Roots
12.	Ngdauna	Artemisia Vulgaris	Nervine Tonic	Leaves
13.	Gorakhkhali	Aerva lanata	UTI	Leaves
14.	Aratti	Abrus precatorius linn	Aphrodisiac	Leaves, Seeds
15.	Amrun	Oxalis corniculata Linn	Skin disorder, Ophthalmic	Leaves
16.	Gulbakawali	Hedychinum coronarium	Eye disorder	Flowers and leaves
17.	Chhula	Butea Monosperma	Diarrhea, Anthelmintic	Seeds, Flowers, Bark
18.	Mahua	Madhuca longifolia	Cough, Ulcer	Flowers, Seeds, Bark
19.	Sirisi	Albizia Lebbeck	Piles	Seeds
20.	Semar	Bombax ceiba	CNS Stimulants	Roots
21.	Brahma Buti	Centella asiatica	Snake bite, Psoriasis	Leaves

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