



Vital Ethnomedicinal Plant Species Exploited in Treating Bronchitis

KEYWORDS

Inflammation, antibiotics, bronchodilators, ethnomedicinal plants, tribes

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ABSTRACT

The inflammation of mucous membranes is generally treated with number of antibiotics and bronchodilators by the medical practitioners. But, it is the known fact that antibiotics do not cure viral infections. Experts in the field of infectious disease have been warning for years that overuse of antibiotics may make number of bacteria's resistant to them. The regular use of bronchodilators like salbutamol may cause certain side effects on the kidney or shivering of the body. In the present investigation an attempt is made to list the ethnomedicinal plants used by the tribes of Harishchandragad-Ratangad wild life sanctuary (Akole tahsil), a part of Westernghats of Maharashtra state for treating bronchitis.

Introduction:

Bronchitis means inflammation of the mucous membranes of the airways (bronchi), which carry oxygen from the trachea to the lungs. It is of two types, acute and chronic. About 90 % viruses including Rhinoviruses, Adenoviruses and Influenza cause acute bronchitis, whereas bacteria including *Mycoplasma pneumoniae*, *Chlamydomphila pneumoniae* and *Bordetella pertussis*, account for about 10 % of cases. Smoking of cigarette, air pollution and occupational exposure to irritants may also lead to cause bronchitis. Sore throat, runny nose, nasal congestion, tiredness, sensation of tightness, burning or dull pain in the chest under the breastbone, wheezing, fever and production of sputum are some common symptoms of bronchitis. The mucus may be clear, yellow or green. Various antibiotics and bronchodilators like salbutamol are used to get relief from bronchitis. But, antibiotics do not cure viral infections. Experts in the field of infectious disease have been warning for years that overuse of antibiotics are making number of bacteria's resistant to the antibiotics. The regular use of medicines like salbutamol may cause certain side effects.

Numbers of plants are mentioned in the ayurveda that cure bronchitis. Honey, lemon, ginger, and almonds are some of the natural sources that are used to get relief from bronchitis. Different ethno-medicinal plants are employed in treating bronchitis by the tribal, inhabiting in the area of Harishchandragad-Ratangad wild life sanctuary (Akole tahsil), a part of Westernghats of Maharashtra state.

Present paper deals with the report of plant species used by tribes of Akole tahsil to cure bronchitis.

Materials & Methods:

Knowledge about the medicinal use was documented from the tribes by arranging frequent field visits to the Harishchandragad-Ratangad wild life sanctuary. A questionnaire

was prepared containing the information about the tribal vaidyas and medicinal importance of different plants. Plants specimens were collected with the help of local herbalists. Herbarium specimens of plant species were prepared scientifically (Jain and Rao, 1977). Photographs of plants were also taken during the fieldwork. Plants were identified with the help of standard Floras i.e. Flora of Bombay Presidency (Cooke, 1908), Flora of Ahmednagar District (Pradhan and Singh, 1999), Flora of Maharashtra State Vol. I (Karthikeyan, 2000), Flora Maharashtra State Vol. II (Singh et al., 2000) and Flora of Maharashtra State Vol. III (Sharma et al., 2000).

Results and Discussion:

The details of plant species used by the tribes in treating bronchitis are given in the table-1 along with their local names, family and method of treatment. Usually all the plant parts mentioned in the table-1 are used orally in the form of decoction or by giving the pulp.

Some of the ethnomedicinal uses are found to be similar with that, those are found in the literature (Nadkarni 2002; Jain, 1991 and Akhtar et. al 1992).

The medicinal uses of plants species i.e. *Abrus precatorius*, *Diplocyclos palmatus*, *Euphorbia hirta*, *Gmelina arborea*, *Mallotus philippinensis*, *Ricinus communis* and *Tragia muelieriana* are not found in any kind of literature. Therefore these plants would be the new findings that are used in the treatment of bronchitis.

Conclusion:

Tribal effectively use medicinal plants in treatment of bronchitis. Plant extracts are given in the form of crude drugs, therefore there is a need for the standardization of these drugs and detection of the particular chemical constituent (active principle) that is having anti-bronchial properties.

Table-1 Ethnomedicinal plants used by the tribals of Akole Taluka in the treatment of Bronchitis

Sr. No.	Name of the plant species	Family	Local name	Method	Plant part used	Literature
1.	<i>Abrus precatorius</i> L.	Fabaceae	Gunj	Oral (Decoction)	Leaf	-
2.	<i>Abutilon indicum</i> (L.) Sweet.	Malvaceae	Atibala	Oral (Decoction)	Leaf	Nadkarni, 2002
3.	<i>Amorphophallus paeoniifolius</i> (Dennst.) Nicols.	Araceae	Suran	Oral (Extract)	Corm	Jain, 1991, Akhtar et al. 1992

4.	<i>Clerodendrum serratum</i> (L.) Moon.	Verbenaceae	Bharangi	Oral (Decoction)	Root	Akhtar et al. 1992
5.	<i>Diplocyclos palmatus</i> (L.) C. Jeffrey	Cucurbitaceae	Shivlingi	Oral (Decoction)	Root	-
6.	<i>Euphorbia hirta</i> L.	Euphorbiaceae	Dudhi	Oral (Decoction)	Entire Plant	-
7.	<i>Gmelina arborea</i> Roxb.	Verbenaceae	Shivan	Oral (Decoction)	Leaf	-
8.	<i>Mallotus philippensis</i> (Lam.) Muell.	Euphorbiaceae	Kunkuphal	Oral (Extract)	Leaf	-
9.	<i>Ricinus communis</i> L.	Euphorbiaceae	Yerandi	Oral (Extract)	Root	-
10.	<i>Tragia muelleriana</i> Pax et Hoff.	Euphorbiaceae	Agiya	Oral (Decoction)	Root	-
11.	<i>Urginea indica</i> Kunth.	Liliaceae	Ran-kanda	Oral (Paste)	Bulb	Nadkarni, 2002



Diplocyclos palmatus (L.) C. Jeffrey



Abutilon indicum (L.) Sweet.



Gmelina arborea Roxb.



Abrus precatorius L.



Mallotus philippensis (Lam.) Muell.



Euphorbia hirta L.



Tragia muelleriana Pax et Hoff.



Ricinus communis L.



Amorphophallus paeoniifolius (Dennst.) Nicols.



Urginea indica Kunth.



Clerodendrum serratum (L.) Moon.

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