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## Benign Herbal Medicines [BHM] to Treat, Control and Management of Asthma

**Dr. Ch. Srinivasa Prasadacharyulu**

Reader, Department of Biochemistry, S.K.P.Govt. College, Guntakal, Anantapuram [DT],  
Andhra Pradesh, India

### **Abstract:**

*The present paper deals the knowledge on Benign Herbal Medicines [BHM] to treat, control and management of Asthma. The paper reports traditional medicinal uses of 8 kinds of Benign Herbal Medicines of 12 medicinal plant species belonging to 11 families. Leaves, Roots, Seeds, Root tubers, Whole plant, Bark, Fruits and Flower buds are the Benign Herbal Medicines [BHM] used to treat, control and management of Asthma. To study about Benign Herbal Medicines [BHM] to treat, control and management of Asthma the selected study area is Rajendra Nagar, Guntakal, Anantapuram [Dt], Andhra Pradesh, India.*

**Keywords:** [1]. Benign Herbal Medicines, [2] Leaves, roots, Seeds root tubers, whole plant, bark, Fruits and flower buds, [3]. 12 medicinal plants, [4]. 11 families, [5] Asthma, and [6]. Rajendra Nagar, Guntakal.

### **1. Introduction**

Plants are excellent source of various herbal medicines useful in the treatment of different ailments of human beings. More than 80% of the world population rely on traditional herbal medicines [Akerele, 1992 and Anonymous, 1994]. About 20,000 plant species are used for medicinal purposes [Penos, 1983]. India has ancient history of use of herbal medicines in the Indigenous system of medicine [Ayurveda, Unani and Siddha] in the dates back over 5000 years.

Traditional plant based herbal medicines are still the first choice in the developing countries because of their easy availability, low cost and no side effects [Kameswara et al., 1999 and Okigbo & Mmeka, 2006]. Herbal medicines do not have the side effects and build up resistance to maintain normal health [Jadeja et al., 2006]. In India, almost 95% of the prescriptions are plant based medicines in the traditional system of Ayurveda, Unani, Siddha and Homeopathy [Satyavati et al., 1987]. Most of the population, especially in rural areas depends on plant based herbal medicines is because of cheaper, easy availability, no side effects and simplicity of their applications. Documentation the knowledge on herbal medicines is important for the conservation of medicinal plants with their herbal medicines as well as their sustainable utilization.

Asthma is a chronic disease of the air ways. Asthma causes the air ways to narrow, the lining of the air ways to swell and the cells that line the air ways to produce more mucus. These changes cause recurrent episodes of wheezing, shortness of breath, chest tightness and cough, particularly at night or in the early morning. Asthma is that to be caused by a combination of genetic and environmental factors [Martinez, 2007]. Globally rates of asthma have increased significantly between the 1960s and 2008 [Grant et al., 1999]. Asthma is recognized as a major public health problem since the 1970s [Murray and Nadel, 2010]. Rates of asthma have plateaued in the developed world since the mid-1990s with recent increases in the developing world [Bousquet et al., 2005]. According to recent estimates in 2011, 235-300 million people globally have been diagnosed with asthma, and it caused 2,50,000 deaths [World Health Organization, 2011]. A perusal of the literature study on Ahluwalia and Matsui (2011), Beuther (2010), Elward et al. (2010), Thomson and Spears (2005), Wood and Gibson (2009), revealed the knowledge on asthma in different methods and Baske & Sur (2010), Mala Rathore et al. (2010), Ravindra kumar pandey et al. (2010), Satyanarayana (2010), Srivastav et al (2010), revealed the importance of traditional usage of herbal medicines to treat asthma and to protect health of human being. Hence the present study was carried out on Benign Herbal Medicines [BHM] to treat, control and management of Asthma.

### **2. Materials and Methods**

Guntakal is a town in Anantapuram Dist, in the south western part of the State of Andhra Pradesh, India. Geography of Guntakal: Guntakal is Located at 15.17°N 77.38°E. It has an average elevation of 432 Metres (1,417 ft). Among different land marks area of Guntakal, Rajendra Nagar is an important & significant place at Guntakal town. Rajendra Nagar Co-ordination: 15°9'42"N 77°23'19"E. it has a population of 1, 26,658 (2011 census).

The present study is based on the field survey about the Benign Herbal Medicines [BHM] to treat, control and management of Asthma. At Rajendra Nagar, Guntakal, Anantapuram [Dt], Andhra Pradesh, India. The study was Carried out during January 2014 to

August 2014. The information was confirmed through discussions with old and elderly local people. The plants were identified with the help of "Flora of Andhra Pradesh" by Pullaiah and Chennaiah (1997). During survey 12 medicinal plants with 8 kinds of benign herbal medicines belonging to 11 families have been identified. In the present work 12 medicinal plants are arranged in alphabetical order with their scientific names, Families, Vernacular names and 8 kinds of Benign Herbal Medicines [BHM] to treat, control and management of asthma. Leaves, Roots, Seeds, Root tubers, whole plant, Bark, Fruits and Flower buds are Benign Herbal Medicines [BHM] to treat, control and management of Asthma.



Figure 1

### 3. Results and Discussions

In the present research work 12 medicinal plants with their 8 kinds of benign herbal medicines belonging to 11 families were identified [Table: 1]. The 12 Antiasthmatic medicinal plant species with their benign herbal medicines are listed alphabetically with scientific names, families, vernacular names [Table:1]. It is noticed that Benign Herbal Medicines [BHM] namely leaves, Roots and seeds [Achyranthes aspera], roots [Calotropis gaigantea], root tubers [Coccinia grandis], Whole plant [Cynodon doctylon], leaves [Eclipta alba], whole plant [Evolvulus alsinoides], bark [Ficus Bengalensis], leaves and bark [Ficus religiosa], leaves [Nyctanthes arbortristis], leaves [Ocimum sanctum], fruits and seeds [Phyllanthus emblica] and flower buds [Punica granatum] are used to treat, control and management of asthma [Table:2 and Fig: 1]. The utilization pattern of benign herbal medicines are indicated that leaves of 5, roots of 2, seeds of 2, root tubers of 1, whole plant of 2, bark of 2, Fruits of 1 and flower buds of 1 were used to treat, control and management of asthma [Table:3 and Fig:2& 3]. It is further indicated that benign herbal medicines namely leaves are dominant part [5] followed by roots, seeds, whole plant and bark [each of 2] and root tubers, fruits and flower buds [each of 1] to treat, control and management of asthma. [Table:3, Fig 2&3]. It is further reported that in relation to utilization pattern of herbal medicines Achyranthes aspera is dominant having 3 herbal medicines [leaves, roots and seeds] followed by Ficus religiosa and Phyllanthus emblica each of 2 herbal medicines [leaves, Bark and Fruits, Seeds respectively], Calotropis gaigantea, Coccinia grandis, Cynodon doctylon, Eclipta alba, Evolvulus alsinoides, Ficus bengalensis, Nyctanthes arbortristis, Ocimum sanctum, and Punica granatum having each of one herbal medicine [Roots, Root tubers, Whole plant, Leaves, Whole plant, Bark, Leaves, Leaves and Flower buds respectively] [Table:2, Fig:1].

Among these 12 medicinal plants at Rajendra Nagar, Guntakal, Achyranthes aspera is a new record for the Kermadec Islands [de Lange et al., 2004], Eclipta alba is highly valuable medicinal plant [Borthakur et al, 2000] and Ficus religiosa is a popular Medicinal plant has got unique Medicinal importance, used in Traditional Indian Medicine for various range of ailments in Indian Culture since times immemorial [Prasad et al., 2006].

### 4. Conclusion

The present research work on Benign Herbal Medicines [BHM] to treat, control and management of Asthma provides the knowledge on traditional usage of 8 kinds of benign herbal medicines namely leaves, roots, seeds, root tubers, whole plant, bark, fruits and flower buds to treat, control and management of asthma both in developed and developing countries.

It is concluded that the present work provides enough information that these 8 kinds of benign herbal medicines has significant role to avoid Asthmatic attacks and relief from asthma in relation to maintain healthy life of human being.

Sl. No	Technical Name of the Plant	Family	Vernacular Name	Benign Herbal Medicines [BHM] to treat, Control & Management of Asthma
1	Achyranthes aspera L.	Amaranthaceae	Uttareni	Leaves, Roots & Seeds
2	Calotropis gigantea (L). R.BR.	Asclepiadaceae	Tellagilledu	Roots
3	Coccinia grandis (L). Voigt	Cucurbitaceae	Kaki Donda	Root tubers
4	Cynodon dactylon(L.)	Poaceae	Garika	Whole Plant
5	Eclipta alba( L.)	Asteraceae	Guntagalagara	Leaves
6	Evolvulus alsinoides (L).	Convolvulaceae	Vishnukranthi	Whole Plant
7	Ficus bengalensis Linn.	Moraceae	Marri	Bark
8	Ficus religiosa L.	Moraceae	Raavi	Leaves & Bark
9	Nyctanthus arbortristis(L.)	Nyctaginaceae	Parijatham	Leaves
10	Ocimum sanctum L.	Lamiaceae	Tulasi	Leaves
11	Phyllanthus emblica L.	Euphorbiaceae	Ucerika	Fruits & Seeds
12	Punica granatum L.	Punicaceae	Danimma	Flower buds

Table 1: Technical names of the Medicinal Plants with Families, Vernacular Names & Benign Herbal Medicines [BHM] to treat, Control and Management of Asthma

Sl. No	Technical Name of the Plant	Benign Herbal Medicines [BHM] to treat, Control & Management of Asthma	Total BHM
1	Achyranthes aspera L.	Leaves, Roots & Seeds	3
2	Calotropis gigantea (L). R.BR.	Roots	1
3	Coccinia grandis (L). Voigt	Root tubers	1
4	Cynodon dactylon(L.)	Whole Plant	1
5	Eclipta alba( L.)	Leaves	1
6	Evolvulus alsinoides (L).	Whole Plant	1
7	Ficus bengalensis Linn.	Bark	1
8	Ficus religiosa L.	Leaves & Bark	2
9	Nyctanthus arbortristis(L.)	Leaves	1
10	Ocimum sanctum L.	Leaves	1
11	Phyllanthus emblica L.	Fruits & Seeds	2
12	Punica granatum L.	Flower buds	1

Table 2: Benign Herbal Medicines [BHM] of Medicinal Plants to treat, Control & Management of Asthma

Sl. No	Benign Herbal Medicines [BHM] to Treat, Control & Management of Asthma	Technical Name of the Medicinal Plant	Total
1	Leaves	1.Achyranthes aspera 2.Elcipta alba 3.Ficus religiosa 4.Nyctanthus arbortristis 5. Ocimum sanctum	5
2	Roots	1. Achyranthes Aspera 2. Calotropis gigantean	2

3	Seeds	1. Achyranthes Aspera 2. Phyllanthus emblica	2
4	Root tubers	1 Coccinia grandis	1
5	Whole Plant	1. Cynodon dactylon 2. Evolvulus alsiniodes	2
6	Bark	1. Ficus bengalensis 2. Ficus religiosa	2
7	Fruits	1. Phyllanthus emblica	1
8	Flower buds	1. Punica granatum	1

Table 3: Benign Herbal Medicines [BHM] of their Respective Medicinal Plant to Treat, Control & Management of Asthma

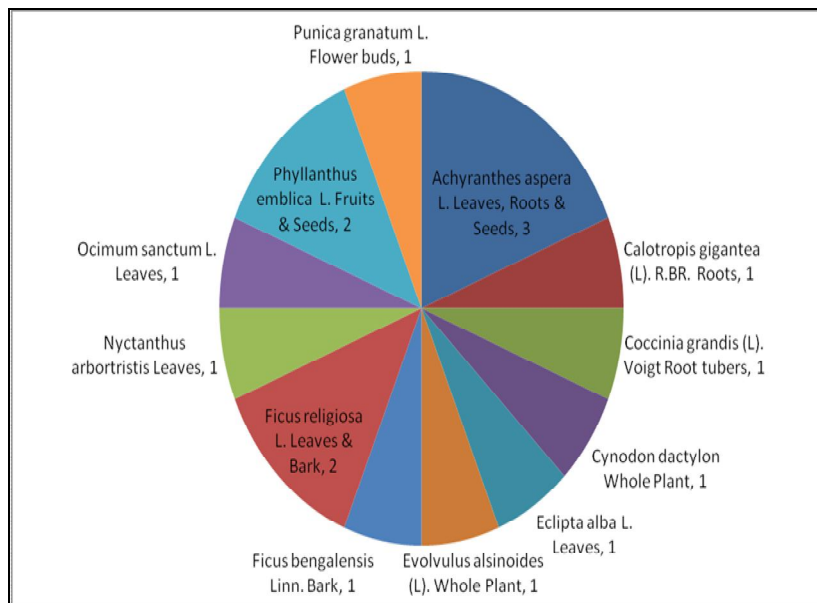


Figure 1: Benign Herbal Medicines [BHM] of Medicinal Plants to treat, Control & Management of Asthma

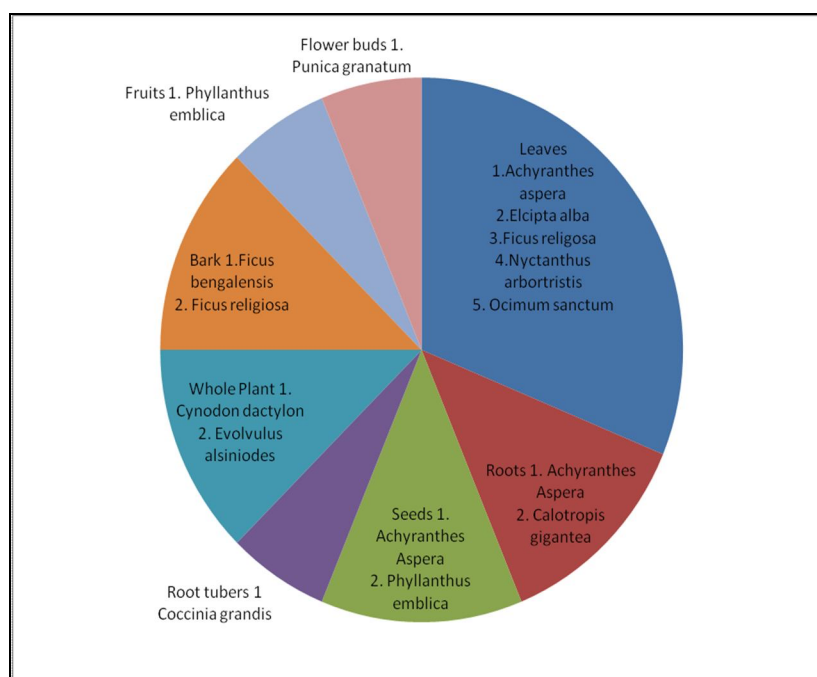


Figure 2: Benign Herbal Medicines [BHM] of their Respective Medicinal Plant to treat, control & management of Asthma

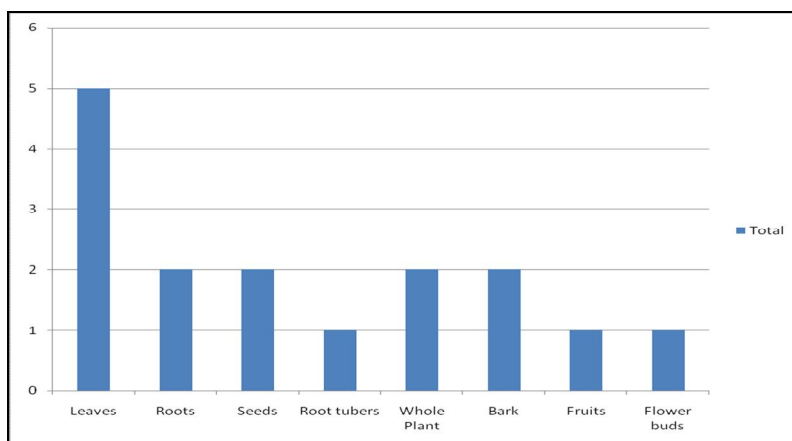


Figure 3: Total Number of 8 Kinds of Benign Herbal Medicines [BHM] Used to treat, control and management of Asthma

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