



MEDICINAL PLANTS: A SOURCE OF HERBAL MEDICINES TO TREAT VARIOUS AILMENTS

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Abstract

Use of plants for treating various ailments is as old practice as man himself. Since ancient times, medicinal plants have been an excellent source of herbal medicine and to treat various ailments. Leaves, juice of leaves, paste of leaves, powder of leaves, stem, root, root powder, bark, seeds, oil of seeds, seed powder, flowers, powder of dried flowers, fruits, fruit powder, and leaf decoction etc; are herbal medicines obtained from medicinal plants are benign to treat various ailments. Herbal medicines are natural and believed to be much safer in the treatment of various ailments. Hence, the present research work provides information on medicinal plants: a source of herbal medicines to treat various ailments. A total of 26 species of medicinal plants with their herbal medicines belonging to 19 families were recorded at Rajendra Nagar, Guntakal, Ananatapuram (Dist), A.P., India. In the present work total numbers of herbal medicines 31 are reported to treat 23 ailments.

Key words:

(1).26 species of medicinal plants (2). 19 Families. (3). 31 herbal medicines (4). 23 ailments (5). Rajendra Nagar, Guntakal.

INTRODUCTION

Use of Plants for treating various ailments is as old practice as man himself. Since ancient times plants have been natural source of medicine. India is one of the twelve mega biodiversity countries of the World's having rich vegetation with a wide variety of medicinal plants of herbal medicinal values. India has ancient history of use of plants in the indigenous system of medicine- Ayurveda. Unani, sidda in dates back over 5000years.Medicinal plants are the back bone of traditional medicine (Farnsworth, 1994). Medicinal plants and herbal medicines are a major component of traditional medicine (Bussmann and Sharon, 2006). Herbal medicines constitute a major source of all the officially recognized system of health in India, Viz. Ayurveda, Yoga, Unani, Sidda, Homeopathy and Naturopathy (Vaidya and Devasagayam, 2007). According to the World Health Organization (WHO) more than 80% of World's population mostly in poor and less developed countries depend on traditional plant based herbal medicines for their primary health care needs (Bajaj and Williams, 1995 and WHO, IUCN and WWF, 1993). In past few years, an emphasis has been laid down on the study of medicinal importance of plants throughout India (Chopra et al;1956, 1968, Dastur, 1951 & Jain, 1991). Medicinal plants have been extensively reported for their various applications in the treatment of a variety of ailments (prajapathi et al; 2003). The medicinal heritage of India is claim to use raw drugs pertaining to some 7500 medicinal plant species (Pushpangadan, 1995). In India almost 95% of the prescriptions are plant based herbal medicines in the traditional systems of Ayurveda, Unani, Homeopathy and Sidda (Satyavathi et al;1987). The Plant based herbal medicines are still the first choice in developed and developing countries because of their easily availability and no side effects. Herbal medicines obtained from plants are believed to be much safer in the treatment of various ailments (Mitalaya et al;2003). The dependence of rural mass on plant based herbal medicines because of cheaper, easy availability, simplicity of their applications. More over they do not have side effects, build up resistance to protect health (Jadeja et al; 2006). A perusal of Literature Studies Baske & Sur, 2010, Panduranga Raju et al;2010, Ravindra Kumar Pandey 2010, Mala Rathore et at; 2010, Kalitha & Borthakur 2010, Chopra et al; 1956, Ramarao Naidu et al; 2010, Subramanian et al; 2010, Sahu et al; 2013, Satish Sekar et al; 2005 & Elizajose & usha,

2010 showed that Herbal medicines have unique potency to treat various ailments. Leaves, juice of leaves, paste of leaves, powder of leaves, leaf decoction, seed powder, Oil of seeds, ruptured seed, root powder, stem, half burnt leaf, tuber juice, powder of dried flowers, fruit, paste of flowers and leaves, juice of fruits and leaves, stem bark paste, latex and paste of hole plant etc; are herbal medicines obtained from medicinal plants are benign to treat various ailments. Hence the present research work provides information on medicinal plants: A source of herbal medicines to treat various ailments.

Material and Methods:

The study area is Rajendra Nagar, Guntakal, Anantapur (Dist), A.P. Guntakal is a town in **Anantapuram district** in the southwestern 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). . It has a population of 2,26,658 (2013 census). Among different land mark areas of Guntakal town, Rajendra Nagar is an important place at Guntakal town. Rajendra Nagar co-ordination; **15°9'42"N 77°23'19"E**.

The study carried out during September 2013 to February 2014 at Rajendra Nagar, Guntakal, Anantapuram (Dist). The data on Herbal medicines of medicinal plants were collected on the basis of field survey and observations of various medicinal plants at Rajendra Nagar, Guntakal, Anantapuram Dist. Experienced traditional medicinal practioners and locals were interviewed to collect the information about herbal medicines of medicinal plants source to treat various ailments. A total of 26 species of medicinal plants with their herbal medicines belonging to 19 families were recorded along the information the vernacular names and traditional use of herbal medicines to treat various ailments have been collected. These 26 species of medicinal plants were identified with the help of "Flora of Andhra Pradesh"(Pullaiah and Chennaiah, 1997). These 26 species of medicinal plants are arranged alphabetically with their technical names, family, vernacular names and their 31 herbal medicines to treat 23 ailments (Table 1).



RESULTS AND DISCUSSION

During the present investigation, a total of 26 species of medicinal plants with their herbal medicines belonging to 19 families have been recorded at Rajendra Nagar, Guntakal, Anantapuram District, AP, India. Technical name of Medicinal plant species, families, vernacular name, Herbal medicines of Medicinal plants and traditional use of Herbal medicines to treat various ailments are arranged alphabetically (Table-1). In the present work total number of herbal medicines 31 is reported to treat 23 ailments (Table-1). Among these 19 families, 7 families namely Asteraceae, Cucurbitaceae, Euphorbiaceae, Fabaceae, Lamiaceae, Liliaceae and Moraceae (2 species each) followed by 12 families namely Amaranthaceae, Anacardiaceae, Annonaceae, Apiaceae, Apocynaceae, Asclepiadaceae, Caesalpiniaceae, Meliaceae, Mimosaceae, Myrtaceae, Rutaceae and Solanaceae (1 species each) were recorded (Table -2). It is revealed that the distribution of total Number and Percentage of 26 Medicinal plant species in different families showed that 7 families namely Asteraceae, Cucurbitaceae, Euphorbiaceae, Fabaceae, Lamiaceae, Liliaceae and Moraceae (2 species and 8% each) and Amaranthaceae, Anacardiaceae, Annonaceae, Apiaceae, Apocynaceae, Asclepiadaceae, Caesalpiniaceae, Meliaceae, Mimosaceae, Myrtaceae, Rutaceae and Solanaceae (1 species and 4% each)[Table 2 & 3, Fig 1 &2]. Leaves, Leaf Paste, Powder of Leaves, Juice of leaves, Leaf decoction, Seed Powder, Oil of Seeds, Ruptured seed, Root Powder, Stem, Half burnt leaf, Tuber juice, Powder of dried Flowers, Fruit, Paste of Flowers and leaves, Juice of Fruits and Leaves, Stem bark leaves, Gum from Stem bark, Latex and Paste of Whole plant are 31 Herbal medicines of 26 medicinal plants to treat 23 ailments were recorded (Table 4). Among the 31 herbal medicines, Leaves, Leaf paste and Juice of Leaves (each 3 of 10%), Powder of Leaves, Leaf decoction, Seed powder, Oil of seed and Fruit (each 2 of 6%) and Ruptured Seed, Root powder, Stem, Hal burnt Leaves, Tuber Juice, Powder of dried Flowers, Paste of Flower & Leaves, Juice of Fruits and Leaves, Stem bark paste, Gum from Stem bark, Latex and Paste of Whole Plant (each 1 of 3%) [Table 4, Fig 3 &4]. The most prevalent form of administration of herbal medicines are Leaves (10%) , Leaf paste (10%) and Juice of Leaves (10%) (Table 4, Fig 4). The identified 31 herbal medicines are used to treat 23 ailments of human beings (Table 5 and Fig 5). Among 31 herbal medicines to treat different ailments like Tooth ache (3 herbal medicines) it is followed by Cuts, Diabetes mellitus, Leprosy, Reduce body heat, Rheumatic pain and snake bite (2 herbal medicines each) and followed by Asthma, Boils, Cold and Cough, Cooling effect, Gastric problems, Hair lice, Healthy Teeth, Heal cracks, Hypertension, Injuries, Normal and Healthy hair, Pimples, Scabies, Skin deceases, Tumors and Whit low (1 herbal medicine each) (Table 1 & 5 and Fig 5).

During the present study, among 31 herbal medicines a maximum of 4 herbal medicines belong to *Achyranthes aspera* to treat 4 ailments, it is followed by *Aloe vera* and *Azadiracta indica* (2 herbal medicines to treat 2 ailments each) and other 23 medicinal plants (1 herbal medicine each to treat 1 ailment each) [Table 1]. Among 23 ailments, Asthma (Herbal medicine: Leaf powder of *Achyranthes aspera*), Diabetes mellitus (2 herbal medicines: Leaves Juice of *Coccinia india* and seed powder of *Momordica charantia*), Gastric problems (1 herbal medicine: Juice of Fruits and Leaves of *Phyllanthus emblica*), Hypertension (1 herbal medicine: Tuber Juice of *Asparagus racemosus*), Leprosy (2 herbal medicines: Paste of Flower and Leaves of *Calotropis gigantea* and Leaf decoction of *Centella asiatica*) and Rheumatic Pain (2 herbal medicines: Leaves of *Leucas aspera* and Oil of Seeds of *Pongamia pinnata*) are highly life risk ailments[Table 1].

It is interestingly to note that herbal medicines are ancient, natural and benign particularly with respect to treat various ailments in relation to protect human health both in developed and developing countries at present and in future also. [Table 1, 4 and 5 and Fig 3, 4 and 5].

Tables and Figures**Table – 1****Herbal medicines of Medicinal plants and Traditional use of Herbal medicines to treat various ailments**

S. No	Technical Name	Family	Vernacular Name	Herbal medicines of Medicinal plants	Traditional use of Herbal medicines to treat various ailments
1	Achyranthes aspera L.	Amaranthaceae	Uttareni	1.Stem, 2.Root powder 3.Leaf paste 4.Leaf powder	1.Healthy Teeth Stem used as tooth bursh 2.Tooth ache: Root powder is applied by adding powder of black pepper to cure tooth ache 3. Cuts: Leaf paste is applied on affected areas daily for 3 days. 4. Asthma 1 spoon Leaf powder with water orally taken daily 3 times for a period of 5weeks
2	Aloe vera [L.] Burm.f.	Liliaceae	Kalabanda	1.Leaf juice 2.Half burnt leaves	1. Reduce body heat: Leaf juice with water is taken orally once per day for 3-4days. 2. Boils: Half burnt leaves are kept on boils once till cure.
3	Annona squamosa L.	Annonaceae	Seethapalam	Seed Powder	Hair lice: Seed powder mixed with water applied on hair daily once for 1hour before head bath for 1week
4	Asparagus racemosus willd.	Liliaceae	Pillithigalu	Tuber juice	Hypertension: tuberjuice is with water orally taken to control hypertension
5	Azadirachta indica A.Juss.	Meliaceae	Veepa	1.Oil of seeds 2. Powder of dried flowers	1.Skin diseases Oil of seeds applied on affected areas of skin to treat skin diseases 2. Cooling Effect: 1spoon of powder of dried flower with water orally taken daily once for 2-3days for cooling effect.
6	Calotropis gigantea (L.) R.Br.	Asclepiadaceae	Tella Jilledu	Paste of Flower and leaves	Leprosy: Flowers and leaves are taken in equal quantities & ground. 2spoon full of paste mixed with a pinch of Ghee is admintred daily twice on affected areas for 21 days.
7	Catharanthus Roseus (L.) G.Don	Apocynaceae	Billa Ganneru	Leaf Paste	Tumors: Leaf paste applied externally on Tumors.
8	Centella asiatica (L.) Urban	Apiaceae	Saraswathi Aku	Leaf decoction	Leprosy : A cup of leaf decoction is administred daily twice for 90days
9	Citrus limon (L.) Burm.f	Rutaceae	Nimma	Fruit	Whitlow: A pinch of salt is inserted in to the fruit by making a small hole and kept around the effected finger
10	Coccinia indica Wight & Arn	Cucurbitaceae	Donda	Leaves juice	Diabetes mellitus: Leaf juice mixed with water taken orally thrice a day for 35days.
11	Croton bonplandianum Ball	Euphorbiaceae	Galivanam okka	Latex	Scabies: Latex mixed with a pinch of turmeric powder is applied on the affected areas daily twice for 2-4 days.
12	Datura metal L.	Solanaceae	Ummetta	Leaves	Pimples: Leaves are gently heated on flame & applied on the face

					once in a day for a week.
13	<i>Eclipta alba</i> L.	Asteraceae	Guntagalar a	Leaves	Normal & healthy hair: Leaves are boiled with coconut oil & the oil is applied on hair once in a day for 3 months to get black, thick & healthy hair & to prevent premature graying of hair
14	<i>Ficus microcarpa</i> L.f.	Moraceae	Juvvi	Fruits	Tooth Ache: Fruits are boiled & ground with a little table salt & the paste applied on the gums to cure tooth ache.
15	<i>Ficus religiosa</i> L.	Moraceae	Raavi	Stem bark paste	Cuts: Stem bark paste is applied on affected areas & bandaged once daily till cure.
16	<i>Leucas aspera</i> (Willd) Link	Lamiaceae	Tella Tummi	Leaves	Rheumatic pain: Water extract of leaves applied externally 2 times a day for period of 1 week.
17	<i>Mangifera indica</i> L.	Anacardiaceae	Mamidi	Gum from stem bark	Heel Cracks: Gum from stem bark mixed with coconut oil is applied affected areas daily twice for 15 days.
18	<i>Mimosa pudica</i> L.	Mimosaceae	Attapatti	Powder of Leaves	Reduce Body heat: 1 tea spoon of powder prepared from shade dried leaves is taken orally with water 2 times a day for a period of 7 days to reduce body heat
19	<i>Momordica charantia</i> L.	Cucurbitaceae	Kakara	Seed powder	Diabetes mellitus: 1 spoon of seed powder with water orally taken thrice a day for 35 days
20	<i>Ocimum sanctum</i> L.	Lamiaceae	Tulasi	Juice of Leaves	Cold & cough: Fresh juice of leaves with water orally taken 3 times a day for a period of 5 days
21	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Usirikai	Juice of Fruits & leaves	Gastric problems: juice prepared from 10-15 gms of fresh fruits and leaves in hot water is taken orally in empty stomach for 5 days in a single dose.
22	<i>Pongamia pinnata</i> L.	Fabaceae	Kanuga	Oil of Seeds	Rheumatic pain: Oil obtained from shade dried seeds is applied externally once in a day for a period of 10 days.
23	<i>Psidium guajava</i> L.	Myrtaceae	Jama	Leaf decoction	Tooth ache: Leaf decoction gargled thrice a day after food for 7 days
24	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Chinta	Ruptured seeds	Snake bite: Ruptured seed is applied on snake bite.
25	<i>Tephrosia purpurea</i> L.	Fabaceae	Vempali	Paste of Whole Plant	Injuries: Paste of about 10 gms of whole plant is applied externally twice for 5-7 days.
26	<i>Tridax procumbens</i> L.	Asteraceae	Gaddi Chamanti	Paste of Leaves	Snake bites: 10 gms of fresh leaves is made into paste with salt & taken orally with water 2 times a day for a period of 3 days.

Table 2**Total Number of Medicinal Plants in different Families**

S.No	Family	Technical name of plants	Total Number of Plants in family
1	Amaranthaceae	Achyranthes aspera	1
2	Anacardiaceae	Mangifera indica	1
3	Annonaceae	Annona squamosa	1
4	Apiaceae	Centella asiatica	1
5	Apocynaceae	Catharanthus Roseus	1
6	Asclepiadaceae	Calotropis gigantea	1
7	Asteraceae	1.Eclipta alba 2.Tridax procumbens	2
8	Caesalpiaceae	Tamarindus indica	1
9	Cucurbitaceae	Coccinia indica Momordica charantia	2
10	Euphorbiaceae	Croton bonplandianum Phyllanthus emblica	2
11	Fabaceae	Pongamia pinnata Tephrosia purpurea	2
12	Lamiaceae	Leucas aspera Ocimum sanctum	2
13	Liliaceae	Aloe vera Asparagus racemosus	2
14	Meliaceae	Azadirachta indica	1
15	Mimosaceae	Mimosa pudica	1
16	Moraceae	Ficus microcarpa Ficus religiosa	2
17	Myrtaceae	Psidium guajava	1
18	Rutaceae	Citrus limon	1
19	Solanaceae	Datura metal	1

Table 3**Number and Percentage of Species in different Families**

S.No	Name of the Family	Number of Species in a family	Percentage of Species in a Family
1	Amaranthaceae	1	4 %
2	Anacardiaceae	1	4 %
3	Annonaceae	1	4 %
4	Apiaceae	1	4 %
5	Apocynaceae	1	4 %
6	Asclepiadaceae	1	4 %
7	Asteraceae	2	8 %
8	Caesalpiaceae	1	4 %
9	Cucurbitaceae	2	8 %
10	Euphorbiaceae	2	8 %
11	Fabaceae	2	8 %
12	Lamiaceae	2	8 %
13	Liliaceae	2	8 %
14	Meliaceae	1	4 %
15	Mimosaceae	1	4 %
16	Moraceae	2	8 %
17	Myrtaceae	1	4 %
18	Rutaceae	1	4 %
19	Solanaceae	1	4 %

Table 4**Total Number and Percentage of Herbal medicines to treat various ailments**

S.No	Technical name of the Medicinal Plant	Name of Herbal Medicine	Total Number of Herbal medicines	Percentage of Herbal Medicines	Traditional use of Herbal Medicines to treat various ailments
1	Datura metal Eclipta alba Leucas aspera	Leaves	3	10 %	Pimples Normal and healthy hair Rheumatic pain
2	Achyranthes aspera Catharanthus Roseus Tridax procumbens	Leaf Paste	3	10 %	Cuts, Tumors & Snake bite
3	Achyranthes aspera Mimosa pudica	Powder of Leaves	2	6 %	Asthma Reduce body heat
4	Alove vera Ocimum sanctum Coccinia indica	Juice of Leaves	3	10 %	Reduce Body heat Cold & cough Diabetes mellitus
5	Centella asiatica Psidium guajava	Leaf decoction	2	6 %	Leprosy Tooth ache
6	Annona squamosa Momordica charantia	Seed podwer	2	6 %	Hair lice Diabetes mellitus
7	Azadirachta indica Pongamia pinnata	Oil of Seeds	2	6 %	Skin diseases Rheumatic pain
8	Tamarindus indica	Ruptured Seed	1	3 %	Snake bite
9	Achyranthes aspera	Root Powder	1	3 %	Tooth ache
10	Achyranthes aspera	Stem	1	3 %	Healthy Teeth
11	Alove vera	Half burnt Leaf	1	3 %	Boils
12	Asparagus racemosus	Tuber Juice	1	3 %	Hypertension
13	Azadirachta indica	Powder of dried flowers	1	3 %	Cooling effect
14	Citrus limon Ficus microcarpa	Fruit	2	6 %	Whit low Tooth ache
15	Calotropis gigantea	Paste of flowers & leaves	1	3 %	Leprosy
16	Phyllanthus emblica	Juice of Fruits & leaves	1	3 %	Gastric problems
17	Ficus religiosa	stem bark paste	1	3 %	Cuts
18	Mangifera indica	Gum from Stem bark	1	3 %	Heel Cracks
19	Croton bonplandianum	Latex	1	3 %	Scabies
20	Tephrosia purpurea	Paste of Whole plant	1	3 %	Injuries

Table 5

Total Number of Herbal medicines to treat different ailments

S.No	Name of the ailment	Total Number of Herbal Medicines to Treat Ailment
1	Asthma	1
2	Boils	1
3	Cold & cough	1
4	Cooling effect	1
5	Cuts	2
6	Diabetes mellitus	2
7	Gastric Problems	1
8	Hair lice	1
9	Healthy teeth	1
10	Heel Cracks	1
11	Hypertension	1
12	Injuries	1
13	Leprosy	2
14	Normal & healthy hair	1
15	Pimples	1
16	Reduce body heat	2
17	Rheumatic pain	2
18	Scabies	1
19	Skin diseases	1
20	Snake bite	2
21	Tooth ache	3
22	Tumors	1
23	Whit low	1

Fig 1
Number of Species in different Families

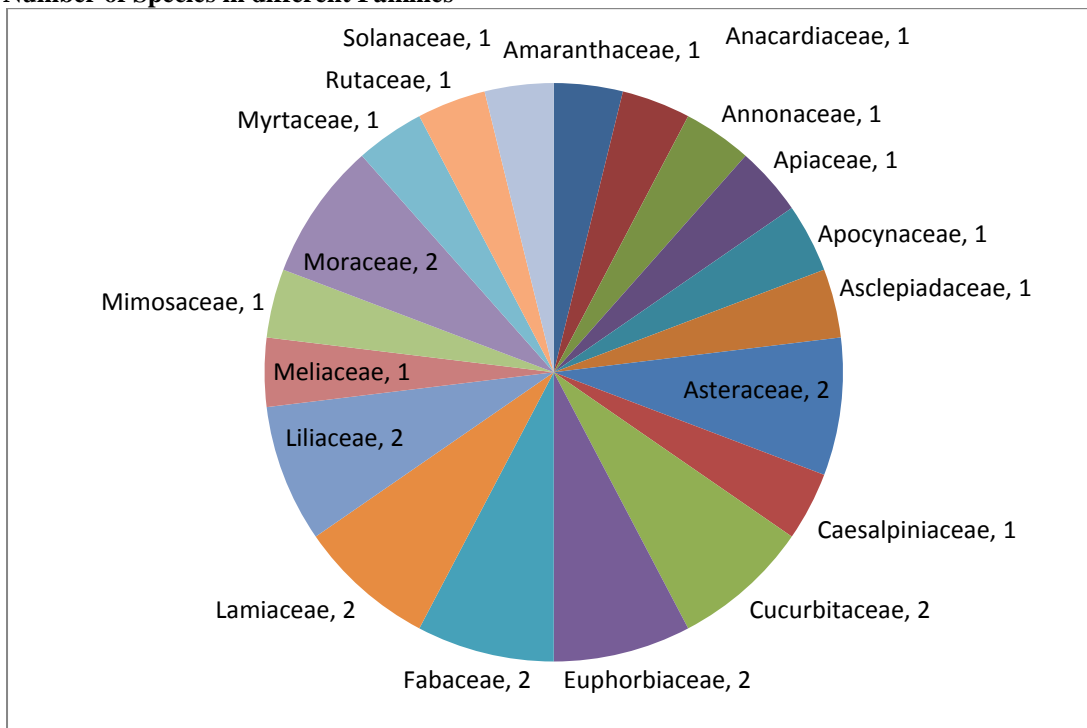


Fig 2
Percentage of Species in different Families

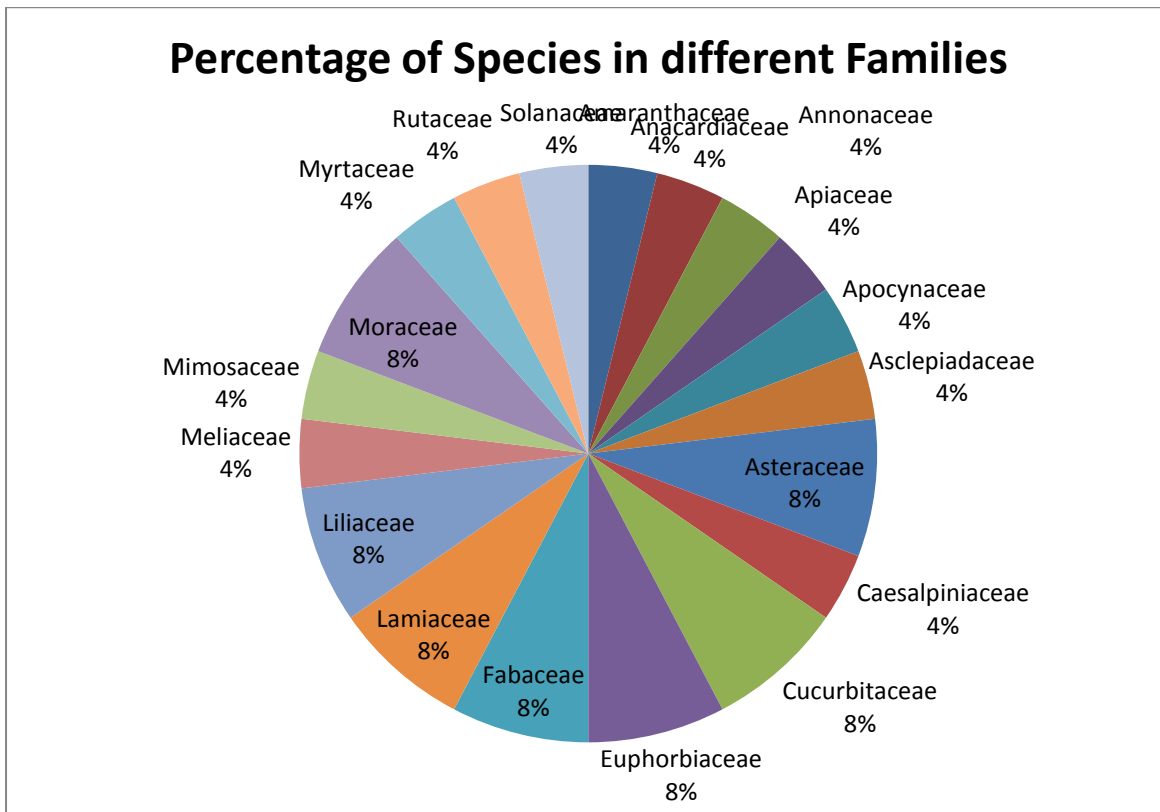


Fig-3
Total

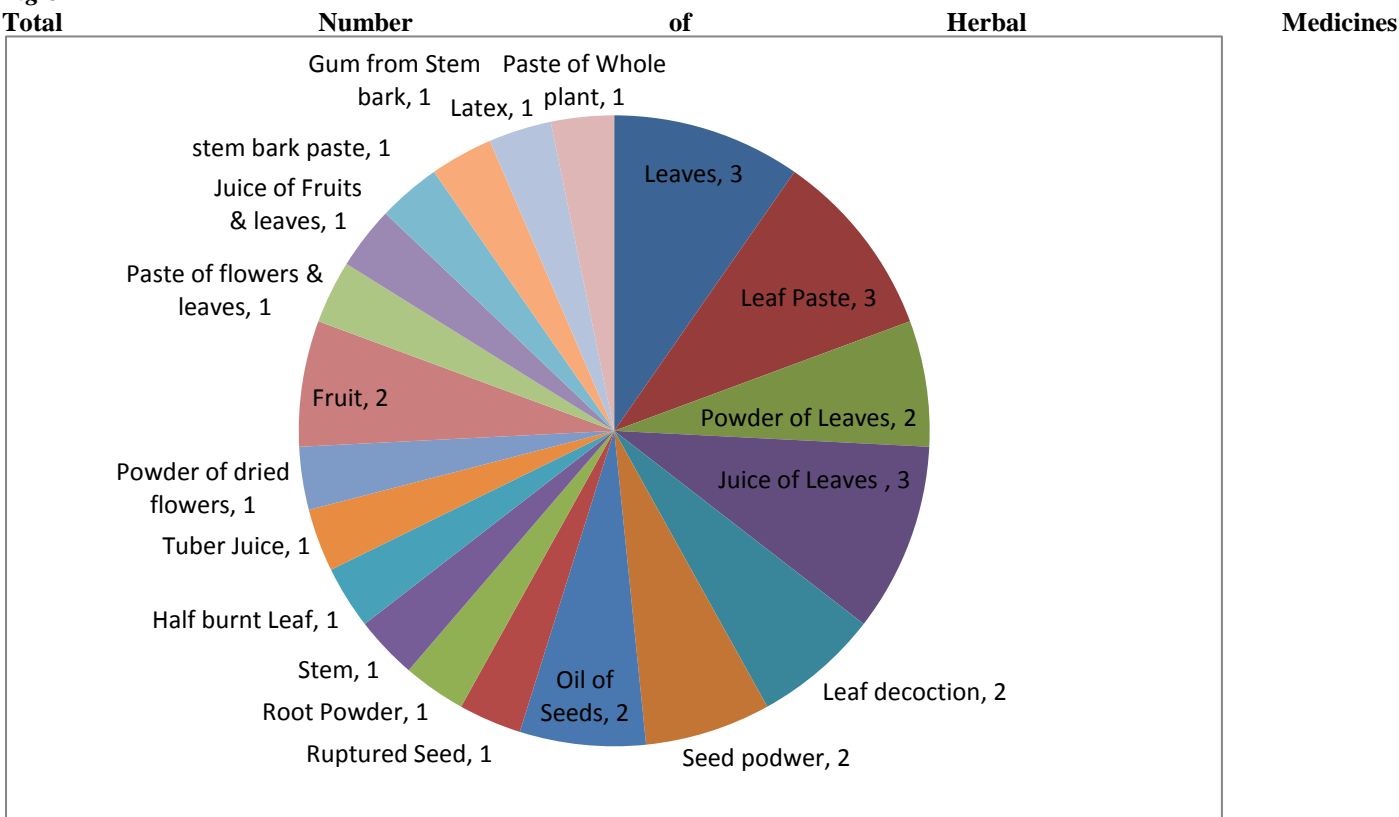


Fig 4
Percentage of Herbal medicines to treat various ailments

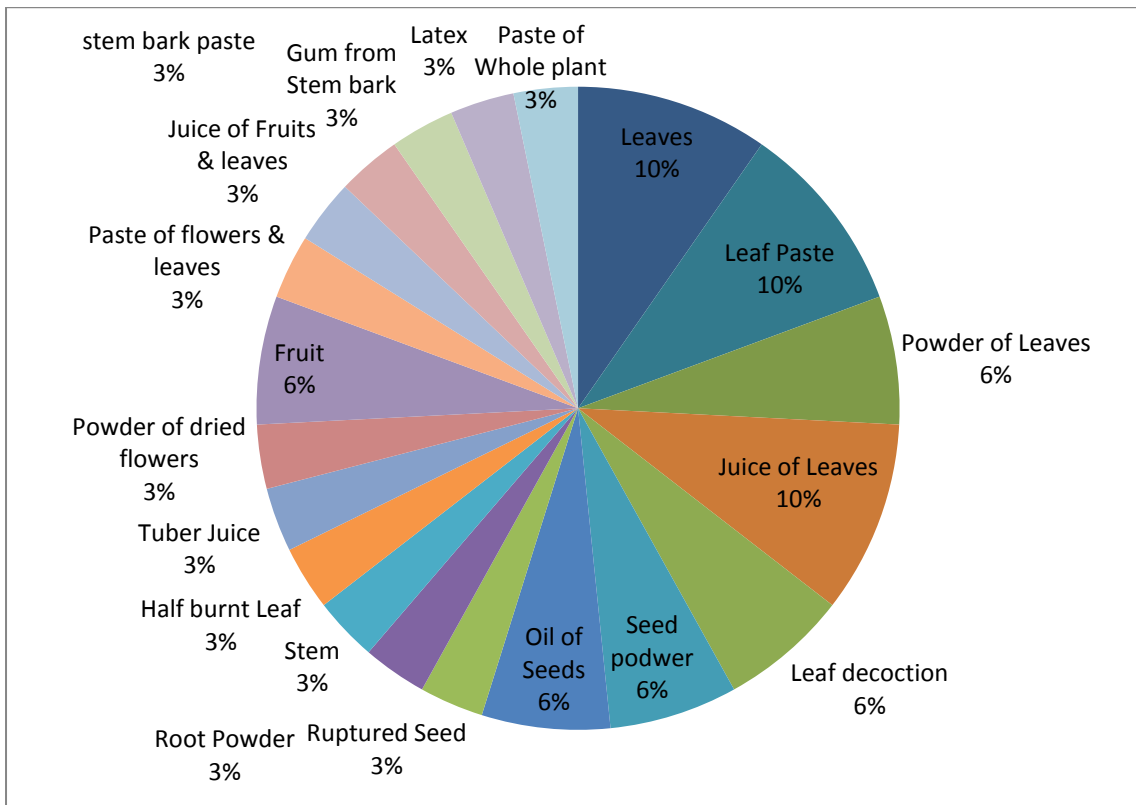
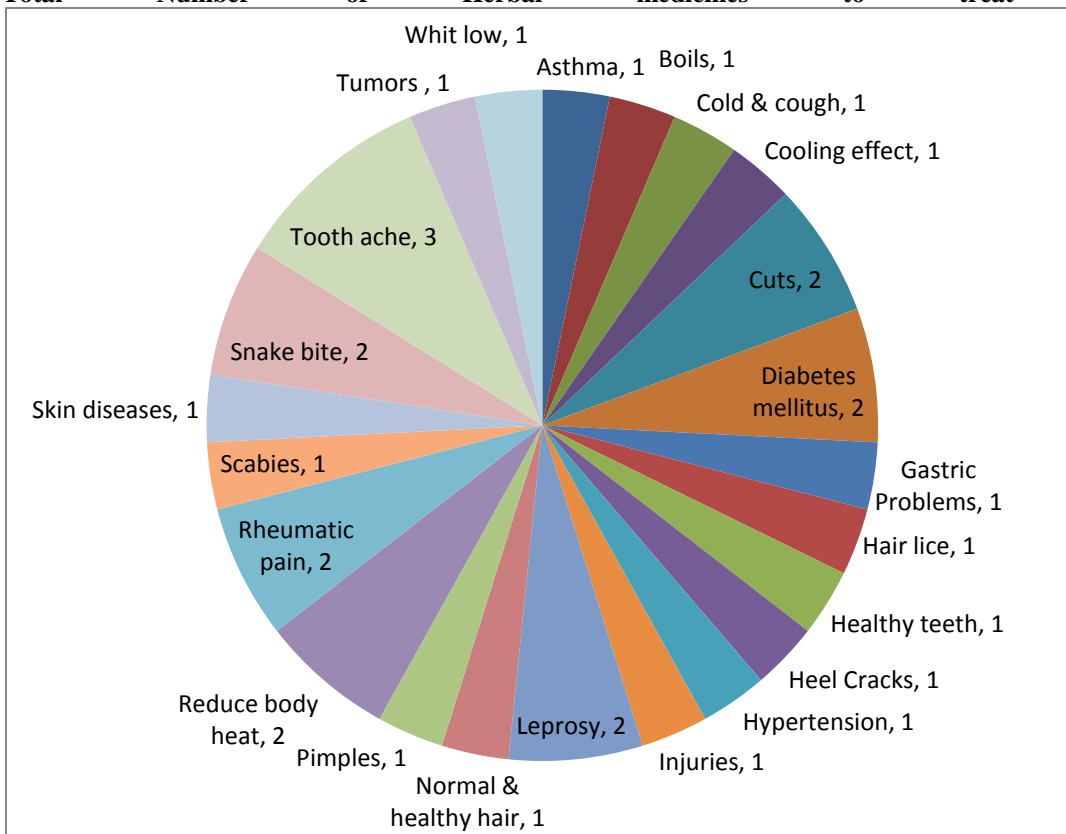


Fig 5 Total Number of Herbal medicines to treat different ailments



Conclusion:

The present research work covers 26 medicinal plants with 31 herbal medicines to treat 23 ailments at Rajendra Nagar, Guntakal, Anantapuram (Dist), A.P. This study showed that knowledge and traditional usage of Herbal medicines for the treatment of various ailments is still most important benign therapy to protect human being health in all aspects. In this study it is observed that usage of herbal medicines as traditional medicines both in developed and developing

countries. Further herbal medicines of plant origin are natural easily available, traditional usage is very simple and benign. Hence benign therapy of herbal medicines has unique health care properties in relation to treat and control of various ailments of human being at present and in the future in the fulfillment of human health care needs

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