



ISSN 2278 – 0211 (Online)

Anxiolytic Natural Medicines at House Gardens

Dr. Ch. Srinivasa Prasadacharyulu

Reader, Department of Biochemistry, S. K. P. Govt. College, Guntakal, Andhra Pradesh, India

Abstract:

Anxiety is a feeling of tension or stress, which decreases the quality of life Worldwide. Traditional House gardens are a rich source of medicines plants with their Natural medicines to treat various diseases. The aim of present research work is to focus the benign traditional therapies of 8 Anxiolytic Natural medicines (ANM) at 2 House gardens located at Post Office Line, Rajendra Nagar, Guntakal, Anantapuram (Dist), Andhra Pradesh, India. The present paper reports 8 Anxiolytic Natural medicines (ANM) of 8 medicinal plants belonging to 8 families. It is evident from the present research work that 3 parts (Leaves, Seeds and Tuber) of 8 medicinal plants has produced 8 Anxiolytic Natural medicines (ANM) to treat Anxiety.

Keywords: (1). 2 House gardens, (2). 8 Anxiolytic natural medicines, (3). 8 medicinal plants, (4) 8 families, (5) anxiety

1. Introduction

Medicinal plants are the back bone of traditional medicine (Farnsworth, 1994). According to the World Health Organization (WHO) more than 80% of the 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). The dependence of rural mass on plant based herbal medicines because of cheaper, easy availability, simplicity of their applications, moreover they do not have side effects, build up resistance to protect health (Jadeja et al; 2006). In India almost 95% of the prescriptions are plant based herbal medicines in the traditional system of Ayurveda, Unani, Homeopathy and Siddha (Satyavathi et al; 1987). Several studies confirm the role of Home gardens as main source of medicinal plants in different parts of the worldwide (Saikai and Khan, 2001). The important study reported sixty two medicinal plant species used in different types of health treatment medicinal plant species used in different types of health treatment among the Nath community of Assam, India (Sikdar and Dutta 2008). Traditional medicinal plants in Mizoram, Northeast India have great diversity and potential Therapeutic applications of 135 medicinal plant species (Sharma et al; 2001). Knowledge of medicinal plants and their role in treatment of various ailments can help in Women emancipation. A study exploring Women's role in traditional farming systems such as Home gardens in Bangladesh found that medicinal plants are, an importantly gendered knowledge help by Women, health care and diffusion of knowledge, making Women's role important in male dominated societies (Akhter et al; 2010). A study on various roles of Home gardens emphasized the contribution of medicinal plants from Home gardens for well-being of people as an important role (Galhena et al; 2013). The Home gardens are regarded an important option for addressing malnutrition and the causes of macronutrient deficiencies (Dounias, 2010). Herbs and medicinal plants are growing in Home gardens all over the world, and in developing countries, nearly 80% of the people use them to treat various diseases, illness and also to improve their health conditions (Rao & Rao, 2006). Anxiety is one of the most common, serious and a growing public health problem World Wide, which decreases the quality of life Worldwide. Human anxiety is a feeling of apprehension, uncertainty or tension stemming from the anticipation of imaginary or unreal threat (Kulkarni & Reddy, 1996). Anxiety affects one-eighth population Worldwide and has become an important research area in the field of psychopharmacology (Yadav et al; 2008). Current pharmacotherapy of Anxiety revolves around the use of synthetic drugs. Benzodiazepines (BZDs), barbiturates, antidepressants (TCA's) have been used for a long time to treat anxiety disorders. The serious side effects associated with these drugs, namely rebound insomnia, sedation, muscle relaxation have limited their use in patients (Kulakarni et al; 2008). However to treat Anxiety the current drug use are associated with the side effects such as Drowsiness, Impaired motor activity and abusive tendencies. Due to these adverse effects many researchers are conducting studies to find an alternative medicine to treat anxiety. So the search for new medicines with safe and good results, in such a scenario Herbal medication of Natural medicines may be considered as a benign alternative to Allopathy medicine. A perusal of literature study on Arun Ravindran et al; 2014, Chandana et al; 2012, Chattopadhyay 1993, Chopra & Chopra, 1956, Jeewan Chandra et al 2013, Kalitha & Borthakur, 2010, Mala Rathore et al; 2010, Shan P Mohammad et al; 2014, Sharana Basayyaswamy et al; 2011, showed that plant based natural medicines like Juice of Leaves, Juice of Tuber, Fresh Leaves, Powder of Seeds, have therapeutic potential to treat Anxiety of Human being. Therefore the present research work has been conducted on "Anxiolytic Natural medicines at House gardens".

2. Material and Methods

The present research work on "Anxiolytic Natural medicines at House gardens" study was conducted at 2 House gardens located at Post Office Line, Rajendra Nagar, Guntakal, Anantapuram (Dist), Andhra Pradesh, India. The present study is based on the Field survey to detect

the Natural Medicines at 2 House gardens situated at Post Office Line, Rajendra Nagar, Guntakal. The study was carried out 6 months during July- 2014 to December – 2014. Repeated, intensive field surveys were conducted at the selected 2 House gardens. In the present study during the period of survey 8 Medicinal Plants with 8 kinds of Anxiolytic Natural Medicines belonging to 8 families have been identified. The Medicinal Plants were identified with the help of Flora books (Pullaiah and Chennaiah, 1997). The identified 8 Medicinal Plants with their 8 Anxiolytic Natural Medicines are arranged in alphabetical order with their scientific name, Family, Vernacular name, benign therapy to treat Anxiety. The identified 8 Anxiolytic Natural Medicines are Juice of Leaves, Powder of Seeds, Juice of Tuber, Paste of Leaves, Fresh Leaves and Decoction of Leaves are Natural, Benign and their therapy is very simple to treat Anxiety.

3. Results and Discussions

In the present research work on “Anxiolytic Natural Medicines at House gardens (ANMHG)” study was conducted at 2 House gardens namely House garden of Dr. Ch. Srinivasa Prasadacharyulu and House garden of Manjunath located at Post Office Line, Rajendra Nagar, Guntakal, Anantapuramu (Dist), Andhra Pradesh, India. In the present investigation the selected field area is 2 House gardens. In The Present research work repeated field studies were conducted at 2 House gardens during the period of July-2014 to December- 2014 to detect Anxiolytic Natural Medicines of 8 Medicinal Plants. In the present work a total of 8 Anxiolytic Natural Medicines of 8 Medicinal plants belonging to 8 families were identified at House garden of Dr.Ch. Srinivasa Prasadacharyulu and House garden of Manjunath (Table-1). The identified 8 Medicinal plants with their 8 Anxiolytic Natural Medicines are listed alphabetically with their Technical name, family, vernacular name and benign traditional therapy to treat Anxiety (Hypertension) (Table- 1). It is evident from the research work that 3 parts of medicinal plant (Leaves, Seeds and Tuber) has produced 8 Anxiolytic Natural medicines to treat Anxiety (Table- 2). Among the reported 8 Anxiolytic Natural medicines they are in the form of Juice of Leaves (2, 25%) Powder of Seeds (2, 25%), Juice of Tuber, (1, 12%), Paste of Leaves, (1, 12%), Fresh Leaves, (1, 13%) and Decoction of Leaves(1, 13%) (Table – 2 & Fig 1, 2). It is further noticed that among 8 Anxiolytic Natural medicines Juice of Leaves and Powder of Seeds are dominant (Table-2 & Fig 1,2).

Anxiety is one of the most common psychiatric disorders, which decrease the quality of life Worldwide. Anxiety has been postulated to be involved in the psychiatric disorders such as depression, hypertension and endocrine disorder like diabetes mellitus and Peptic Ulcer (Elliott & Eisdorfer, 1982). The failure of successful adaptation during stressful situation may lead to illnesses that result from, or are associated with dysregulation of the stress response and results in Anxiety disorders (Chrousos and Gold, 1992). Prolonged stressful conditions have been associated with dysfunction of several neurotransmitters resulting in behavioral changes leading to disorders like Anxiety and depression (Gonzalo et al;2003). HPA (Hypothalamus – Pituitary- Adrenal) axis dysregulation caused by stress results in excess production of noradrenalin and corticosterone sensitizers peripheral inflammatory response and increases Anxiety (Neign et al;2004 b). Repetitive stress exposure leads to enhanced release of corticotropin releasing hormone (CRH) (Engelmann & Ludwig, 2004). CRH acts as neurotransmitter or neuromodulator and is implicated in the control of Anxiety (De souza,1995). It is evident that there could be a linkage in the interaction of serotonergic pathways and plant extract. It has been considered the serotonin receptor implicated in fear and Anxiety (Kadaba, 1994). Use of medicinal plants as a therapeutic approach for psychiatric illness has increased significantly. A number of herbal medicines are commonly used for treatment of Neurological and psychological disorders (Beaubrun & Gray, 2000). It has been estimated that 43% of Anxiety sufferers use some form of complementary therapy (Eisenberg et al; 1998). Till date efficacy of available drugs is limited. In such conditions Natural Medicines may be considered as an alternative to Allopathy medicine. Hence the result and finding of the present investigation on 8 Anxiolytic Natural Medicines at House gardens showed that the 8 Anxiolytic Natural medicines are natural and very easily available at House gardens and these 8 Anxiolytic Natural medicines are benign and their traditional therapy is very easy and simple to treat Anxiety.

4. Tables and Figures

S. No	Technical Name of Plant	Family	Vernacular Name	Natural Medicine	Traditional Therapy to treat Anxiety
1	Achyranthes aspera L.	Amaranthaceae	Uttareni	Juice of Leaves	5ml juice of Leaves with a glass of water is orally taken thrice a day for a period of 60-days regularly.
2	Asparagus racemosus willd.	Liliaceae	Pillithigalu	Juice of Tuber	Juice of Tuber with a glass of water orally taken thrice a day for a period of 60-days regularly.
3	Azadirachta indica A.Juss.	Meliaceae	Veepa	Juice of Leaves	1 spoon juice of Leaves with a glass of water is orally taken thrice a day for a period of 60-days regularly
4	Centella asiatica (L.) Urban	Apiaceae	Saraswathi Aku	Paste of Leaves	Paste of Leaves (10grms) is mixed with a small glass of water and orally administered twice a day for a period of 60- days regularly.
5	Coriandrum sativum .L	Umbelliferae	Dhaniyalu	Powder of Seeds	1 spoon Powder of Seeds with a glass of water is orally taken thrice a day for a period of 60-days regularly
6	Ixora coccinea L.	Rubiaceae	Ramabanam	Decoction of Leaves (3 leaves)	A small glass of Hot water of Decoction of Leaves is administered daily thrice for a period of 45-days regularly
7	Ocimum sanctum L.	Lamiaceae	Tulasi	Fresh Leaves	Hand full fresh leaves eaten thrice a day for a period of 60-days regularly.
8	Moringa oleifera Lam	Moringaceae	Munaga	Powder of Seeds	1 spoon powder of Seeds with a glass of water orally taken twice a day for a period of 30-days regularly.

Table 1: Anxiolytic Natural Medicines of Medicinal Plants with their Family, Vernacular Name and Traditional Therapy to Treat Anxiety

S.No	Anxiolytic Natural Medicines	Total Number	%
1	Juice of Leaves	2	25
2	Powder of Seeds	2	25
3	Juice of Tuber	1	12
4	Paste of Leaves	1	12
5	Fresh Leaves	1	13
6	Decoction of Leaves	1	13

Table 2: Total Number and Percentage of Anxiolytic Natural Medicines to treat Anxiety

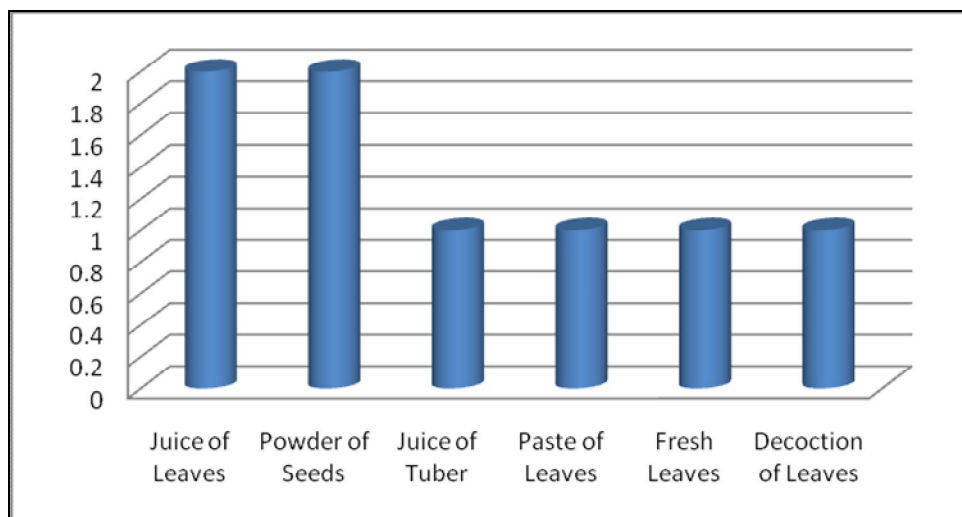


Figure 1: Total Number of Anxiolytic Natural Medicines to treat Anxiety

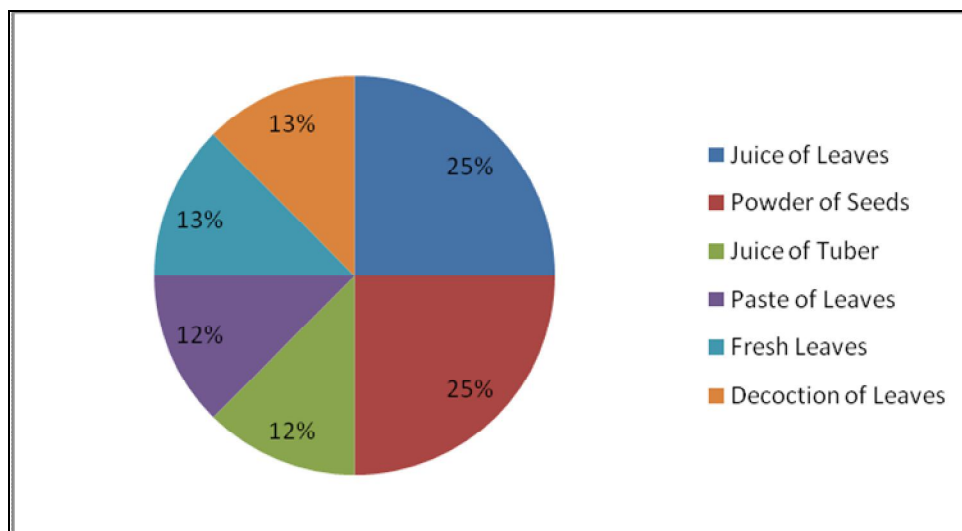


Figure 2: Percentage of Anxiolytic Natural Medicines to treat Anxiety

5. Conclusion

It is concluded that the present study provides enough information on 8 Anxiolytic Natural medicines are benign and has unique significant role to treat Anxiety (Hypertension) and to maintain long time survival of Normal healthy life.

6. References

- i. Akhter, S., Alamgir, Md., Sohel Md, S.I., Rana MD, P. and Ahmed, S.J.M. (2010).The role of women in traditional farming systems as practiced in Home gardens: a case study in Sylhet Sadar Upazila, Bangladesh. Tropical Conservation Science, 3(1), 17-30.
- ii. Arun Raveendran, Mohandas Rai, Manohar V.R., Nimisha Raveendran, Floyd Vernon and D Souza. (2014). Evaluatuon of Anxiety activity of Aqueous Extract of Coriandrum sativum Seeds on Sub- Acute administration using Dark/ Light Arena in Swiss Albino Mice. International J. of Research on Ayurveda Pharma, 5(1), 123-125.
- iii. Bajaj, M. and Williams, J.T. (1995). Healing forests Healing People IDRC Medicinal plants. Healing Network, New Delhi.
- iv. Beaubrun, G. and Gray G.E. (2000). A Reviews of herbal medicines for psychiatric disorders. Psychiatric surv, 51, 1130-1134.

- v. Chandana, C., Barua, Archana Talukda, Shameem Ara Begum, Prabodh Borah, and Mangala Lahkar. (2012). Anxiolytic activity of methanol leaf extract of *Achyranthes aspera* Linn in mice using experimental model of anxiety. *Indian J. of Pharmacy*, 44(1), 63-67.
- vi. Chattopadhyay, R.R. (1993). Hypoglycemic effect of *Ocimum sanctum* leaf extract in normal and streptozotocin induced diabetic rats. *Indian J. of Exp. Biol*, 31, 891-893.
- vii. Chopra, R.N., Nayar, S.L. and Chopra, I.C. (1956). Glossary of Indian medicinal plants. CSIR, New Delhi.
- viii. Chrousos, G.P. and Gold, P.W. (1992). The concept of stress and stress system disorders. *Jama*, 267, 1244-1252.
- ix. De souza, E.B. (1995). Corticotropin- Releasing Factor receptors: Physiology, Pharmacology, Biochemistry and role in CNS and Immune disorders. *Psychoneuro endocrinology*, 20, 789-819.
- x. Dounias, E. (2010). An Ounce of Prevention is Worth a pound of Cure. Fang Home garden Organization as Means to prevent from Health Risks. *J. The Open Complementary Medicine*, 2, 31-41.
- xi. Eisenberg, D.M., David, R.B. and Ettner, S.L. (1998). Trends in alternative medicine use in the United States. *J. of Am. Med. Assoc.*, 280, 1569-1575.
- xii. Elliott, G.R and Eisdorfer, C. (1982). *Stress and Human Health*. New York: Springer Publishing.
- xiii. Engelmann, M. and Ludwig, M. (2004). The activity of the hypothalamoneurophysiological system in response to acute stressor exposure: neuroendocrine and electrophysiological observations. *Stress*, 7, 91-96.
- xiv. Farnsworth, N.R. (1994). Chichester: Wiley; *Ethnopharmacology and drug discovery*. Proceeding of Ciba Foundation Symposium. 185, 42-59.
- xv. Galhena, D.H., Freed, R. and Maredia, K.M. (2013). Home gardens: a promising approach to enhance household food security and wellbeing. *Agriculture and Food Security*, 2(8), 48-62
- xvi. Gonzalo, A. Carrasco, L.D. and Van, D.K. (2003). Neuroendocrine pharmacology of stress. *European J. of Pharmacology*, 463, 235-272.
- xvii. Jadeja, B.A, Odedra, N.K. Slanki, K.M. and Baraiya, N.M. (2006). Indigenous animal healthcare practices in District Porbandar, Gujarat. *Indian Journal of Traditional Knowledge*, 5(2), 253-258.
- xxviii. Jeewan Chandra, Himanshu Joshi, Pankaj Bahuguna, Karuna Shankar and Rakesh Kumar. (2013). Experimental studies on *Centella asiatica* for Anxiolytic activity in rats. *Sch. Acad. J. Biosci*, 1(6), 283-289.
- xix. Kadaba B.K.A. (1994). A safe herbal treatment for Anxiety. *Brit J. of Phytother*, 3, 1500.
- xx. Kalitha, P. C. and Borthakur, S.K. (2010). Studies on some highly utilized important medicinal plants among the Rural people of Madankamdev Hill region, Assam. *J. Econ. Taxon*, 34(2), 257-261.
- xxi. Kulakarni, S.K. and Reddy, D.S. (1996). *Meth Find Exp Clin Pharmacol*, 18, 219.
- xxii. Kulakarni, S.K., Singh, K. and Bishnoi. (2008). *Indian J. Exp. Biol*, 46, 633.
- xxiii. Mala Rathore., Kishan kumar. and Abha Rani. (2010). Ethno-medicinal uses of plants in South Western Rajasthan. *J. Econ. Taxon. Bot*, 34(1), 212-223.
- xxiv. Neigh G.N. Kofler J., Meyers J.L., Bergdall, V., LaPerle K.M., Traystman R.J., and Devries A.C. (2004 b). Cardiac arrest / Cardio luminary resuscitation increases Anxiety- like behavior and decreases social interaction. *J. of Cereb. Blood Flow Metab*, 24, 372-382.
- xxv. Pullaiah, T. and Chennaiah, C. (1997). *Flora of Andhra Pradesh, India*. Scientific Publishers, Jodhpur.
- xxvi. Rao, M.R., Rao, B.R.R. In: Kumar, B.M., and Nair, P.K.R. (2006). Editors, *Tropical Home gardens: A time tested example of sustainable agroforestry*. Springer Science. Dordrecht, The Netherlands, 205.
- xxvii. Saikia, P. and Khan, M.L. (2011). Diversity of medicinal plants and their uses in Home gardens of upper Assam, northeast India. *Asian. J. of Pharmaceutical and Biological Research*, 1(3), 296-309.
- xxviii. Satyavathi, G.V., Guptha, A.K. and Tandon, N. (1987). *Medicinal plants of India*. ICMR, New Delhi, India.
- xxix. Shan P. Mohammad, Nasiya Lat heef and Sri Ganeshan, P. (2014). Evaluation of Anxiolytic activity of *Ixora Coccinea* Linn. Ethanolic extract in Swiss Albino mice. *J. of Clinical & Exp. Pharmacology*, 4 (1).
- xxx. Sharanabasayyaswamy, and Harenath, B. and Srinvas L.D. (2011). A study on Anxiolytic activity of *Azadirachta indica* Leaves in Wister Albino rats. *Int. J. of Advances in Pharmaceutical Research*. 2(11), 563-568.
- xxxi. Sharma, H.K. Chhangte, L. and Dolui, A.K. (2001). Traditional medicinal plants in Mizoram, India. *Fitoterapia*, 72, 146-161.
- xxxii. Sikdar, M. and Dutta, U. (2008). Traditional Phytotherapy among the Nath people of Assam. *Ethno-Medicine*, 2(1), 39-45.
- xxxiii. Yadav, A.V, Kawale, L.A. and Nade, V.S. (2008). *Indian J. Pharmacol*, 40, 32-36.