

**“A CONSTITUTIONAL APPROACH OF TREATMENT OF ESSENTIAL
HYPERTENSION IN CORRELATION WITH ANXIETY IN GERIATRIC
AGE GROUP”**

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT

FOR THE AWARD OF DEGREE OF
DOCTOR OF MEDICINE IN HOMOEOPATHY: M. D(Hom)
PRACTICE OF MEDICINE

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SUBMITTED TO

THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY
CHENNAI

2021

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This is to certify that the Dissertation entitled “A *CONSTITUTIONAL APPROACH OF TREATMENT OF ESSENTIAL HYPERTENSION IN CORRELATION WITH ANXIETY IN GERIATRIC AGE GROUP*” is a bonafide work carried out by **Dr.ASWATHY.K.SASI**, student of **M.D(Hom) in PRACTICE OF MEDICINE(2018-2021)** in **Sarada Krishna Homoeopathic Medical College, Kulasekharam, Tamil Nadu** under the supervision and guidance of **Dr. N.V. SUGATHAN, M.D., (Hom.) Ph.D., Principal and Professor, Department of Practice of Medicine** in partial fulfillment of the Regulations for the award of the Degree of **DOCTOR OF MEDICINE(HOMOEOPATHY) in PRACTICE OF MEDICINE**. This work conforms to the standards prescribed by **THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY, Chennai**.

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ABSTRACT

INTRODUCTION

According to ICD-10, Essential hypertension has only a single code for individuals who meet criteria for hypertension and who do not have comorbid heart/kidney disease.

MATERIALS AND METHODS

Samples of 15 cases with essential hypertension in geriatric age group are collected from the OPD, IPD and Peripheral centres of SKHMC Hospital for homoeopathic treatment. The patient selection done randomly and their details were recorded in standard case format. The cases were analysed for anxiety using geriatric anxiety scale.

Follow up every 2 weeks interval and also the changes in symptoms were recorded. Analysis of hypertension and anxiety before and after treatment were carried out. Also the correlation of essential hypertension with anxiety is analysed.

RESULT AND CONCLUSION

Among 15 patients, the middle class people and housewives were majority with essential hypertension. All the patients were of geriatric age group and showed anxiety. Most cases showed marked improvement. The statistical analysis was carried out with paired 't' test for systolic values, diastolic values and for anxiety scores based on GAS scale. The critical ratio 't' was significantly greater than the t-table values for both 1% and 5% level for degrees of freedom. The study showed that homoeopathic medicines are effective in the management of hypertension and anxiety both.

Keywords -essential hypertension, anxiety, geriatric anxiety scale

ACKNOWLEDGEMENT

*With a devoted heart I thank the **ALMIGHTY GOD** whose grace strengthens me to complete this work with maximum involvement.*

*I take this opportunity to thank each and every one for helping me to complete my dissertation effectively and on time. It is my privilege to express immense gratitude to **Dr. C. K. MOHAN, B.Sc, M.D. (Hom.)**, Chairman, Sarada Krishna Homoeopathic Medical College, for his constant support and encouragement in my studies, developing myself as a physician.*

*I am highly indebted to My Teacher and Guide **Dr. N. V. SUGATHAN, M.D.(Hom.).Ph.D.** Principal and Prof. Dept. of Practice of Medicine, Sarada Krishna Homoeopathic Medical College, for the continuous support throughout my study and research, for his motivation, enthusiasm, and immense knowledge. His guidance helped me in all the time of research and writing of this dissertation.*

*I express my sincere gratitude to **Dr. T. AJAYAN, M.D. (Hom.)**, Professor & HOD, Dept of Practice of Medicine for his valuable support.*

*I express my gratitude towards PG Coordinator **Dr. WINSTON VARGHEES., M.D. (Hom.)**, Prof. Dept. of Materia Medica who had always supported and encouraged in my studies and my work by providing exposure from various source of knowledge.*

*My sincere thanks to respected **Mrs. Dr. CHANDRAJA C.V, Ph.D**, Research Officer, Dept. of Research for her valuable help during my dissertation work.*

*I express my heart full thanks to my beloved teacher **Dr. V. HARISANKAR, M.D.(Hom.)**, Associate Professor, Dept. of Practice of Medicine for his kind support and encouragement.*

*I also express my thanks to **Dr. ARUN. R. NAIR, MD.(Hom.)**, Assistant Professor, Dept. of Practice of Medicine and **Dr. NISHA GOPINATH, MD.(Hom.)**, Assistant Professor, Dept. of Practice of Medicine for their constant support throughout my dissertation work.*

*I am thankful to HODs of all departments of SKHMC, including **Dr.SATHEESHKUMAR, Dr.MURUGAN, Dr.P.SISIR** and **Dr.WINSTON VARGHEES** for their constant support throughout my dissertation work.*

I extend my sincere love and gratitude to all my lovable friends, seniors, juniors, Interns and all my well-wishers for their support.

*I would like to thank my parents, **Mr. K.M SASI AND Mrs. USHAKUMARI C.A.** , **Mrs. REENA** for providing all support and encouragement throughout my life. I also extend my thanks to my better half **Mr. ARUN UNNIKRISHNAN** and my daughter **ESHA KRISHNA** for their encouragement and support.*

I also take this opportunity to thank Mrs. Subha and Mrs. Ambilikala, library staffs, nurses and other non-teaching staffs for their help by providing me with the reference materials for my dissertation.

Last but not the least; I would like to thank my patients for their kind cooperation.

Dr. ASWATHY.K.SASI

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LIST OF ABBREVIATIONS

SL. NO.	ABBREVIATION	EXPANSION
1.	%	Percentage
2.	<	Aggravation
3.	>	Amelioration
4.	§	Aphorism
5.	0C	Degree Celsius
6.	Σ	Sum
7.	A/F	Ailments from
8.	Aqua	Water
9.	Bd	Twice a day
10.	D	Dose
11.	Dr	Doctor
12.	eg.	Example
13.	F	Female
14.	Gtt	Drops
15.	H/O	History of
16.	Hrly	Hourly
17.	i.e.,	That is
18.	IPD	In patient department
19.	M	Male
20.	No.	Number
21.	OPD	Out patient department
22.	SD	Sara disket
23.	SG	Sara globule
24.	SL	Saccharum Lactis
25.	Sl. No.	Serial Number
26.	Wks	weeks
27.	Yrs	Years
28.	HTN	Hypertension
29.	GAS	Geriatric anxiety scale

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1.INTRODUCTION

Anxiety is the state /feeling nervous/worried that something bad is going to happen acute or intense or deep according to oxford collocations dictionary.

The evaluation of the anxious patient requires, the clinician should determine whether the anxiety antedates/postdates a medical illness. Almost one third of patients presenting with anxiety have a medical aetiology, but an anxiety disorder can also present with somatic symptoms in the absence of diagnosable medical condition.

Anxiety disorders are characterised by the emotion of anxiety, worrisome thoughts, avoidance behaviour and the somatic symptoms of autonomic arousal.

Somatic symptoms, its nature and prominence often lead the patient to present initially to medical services.

Anxiety may be stress related and phobic anxiety may follow an unpleasant incident. Anxiety and depression go hand in hand sometimes.

Many investigators have studied the psychological factors related to hypertension. Literature reviews suggest more association of hypertension with anxiety. Hypertension means abnormally high blood pressure. The prevalence of essential hypertension increases with age, and individuals with relatively high blood pressure at younger ages are at increased risk for the subsequent development of hypertension. Also 80-95 percent of hypertensive patients are diagnosed as having essential hypertension. The symptoms of hypertension are severe headache, nausea, vomiting, focal neurological signs and alterations in mental status.

Management of anxiety requires both psychological and remedial treatment. Most patients with hypertension have no specific symptoms referable to their blood pressure elevation. The initial assessment of hypertensive patient should include a complete history and physical examination to confirm a diagnosis of hypertension. Also screening for other secondary causes of hypertension and determine the potential for suitable intervention.⁽³¹⁾

BACKGROUND AND JUSTIFICATION OF THE STUDY

There is a need to consider the issues of elderly as a social problem. Wisdom, welfare and experience are some of the values old people can offer society. To enable them to do so, there is a need to ensure that they are keeping fit, experience a healthy ageing process and contributing their time, experience and knowledge, so they can feel useful, increase their self esteem and contribute to improving existing social needs.

The elderly people constitute a group at risk for elevated emotional stress. Awareness of the risk factors in the old age is important so that appropriate prevention and treatment interventions can be developed. Modification of these risk factors could have an important impact on successful ageing.

Several factors surrounding the treatment of hypertension have continually caused controversy over the last decades and remain unresolved. If we want to really enter with precision the type of treatment in hypertension and every disease we have to know the cause.

Essential hypertension can gradually cause reduced blood flow through your body, leading to heart failure, atherosclerosis, stroke, damage to eyes, kidney and also nerves.

2.AIMS AND OBJECTIVES

- To assess the role of homoeopathic medicines in the constitutional approach of management of essential hypertension.
- To assess the relationship between essential hypertension and anxiety.
- To assess the improvement of anxiety before and after treatment through geriatric anxiety scale.

3.REVIEW OF LITERATURE

3.1.ESSENTIAL HYPERTENSION

SYNONYM:Primary Hypertension,Idiopathic Hypertension

Definition

Essential hypertension is elevated blood pressure for which there is no clearly defined causative factor.It is defined as that level of blood pressure at which treatment to lower blood pressure results in significant clinical benefit- a level which will vary from patient to patient depending on their absolute cardiovascular risk⁽¹⁾

3.2.EPIDEMIOLOGY

According to epidemiological data more than one billion adults worldwide have hypertension .The prevalence rises with age accounting for upto 60% of the population above 60 yrs of age⁽²⁾.

Although exact statistics on the prevalence of primary hypertension are not known,It is more common in men and also more severe in men.Primary hypertension appears to be more prevalent in highly industrialised regions.A lot of community studies and clinical observations have suggested association of primary hypertension with a number of factors including obesity,heredity,occupation,diet,psychological and social characteristics. ⁽³⁾

The most common type of hypertension affecting 95% of hypertensive patients is primary HTN.⁽⁴⁾

Another epidemiological data is that the prevalence of essential hypertension increases with age,and individuals with relatively high blood pressure at younger ages are at increased risk for subsequent development of hypertension.Hypertension also can increase the risk for cardiac,cerebral and renal events⁽⁵⁾.

3.3.ETIOLOGY

The interaction of different types of genes and several environmental influences play a large role in the development of high blood pressure. The important genetic variations include polygenes, polymorphic genes, and dominant idiomorphic genes. The main environmental sources are increased weight gain, excess salt intake and psychosocial stress. ⁽⁶⁾.

1. Ageing-As a result of decreased glomerular filtration rate related to ageing and this results in decreased sodium excretion. This in turn leads to an important factor inducing salt sensitive hypertension. Also there is experimental evidence that renal microvascular disease is an important factor inducing salt-sensitive hypertension ⁽⁷⁾.

2. Obesity-Obese individuals have fivefold increased risk of hypertension as compared with normal weight. About two-thirds of hypertension cases can be related to excess weight. ⁽⁸⁾

3. Salt-. *Data shows that approximately one-third of essential hypertensive patients responsive to sodium intake* ⁽⁹⁾.

4. Alcohol-Alcohol is another important factor contributing to hypertension. Excessive alcohol consumption increases blood pressure. Alcohol increases the calories and contribute to obesity ⁽¹⁰⁾.

5. Renin-angiotensin aldosterone mechanism is another factor.

6. Diabetes –The increased insulin resistance compared with renin angiotensin aldosterone system is another contributing factor ⁽¹¹⁾.

6. Vitamin-D-vitamin-D is associated with cardiovascular risk factors ⁽¹²⁾.

7. *Lack of exercise-Blood pressure can be reduced by regular physical exercise.* ⁽¹⁰⁾

3.4.PATHOPHYSIOLOGY

The balance between cardiac output and peripheral vascular resistance are the two factors that help to maintain normal blood pressure. An increase in cardiac output/an increase in peripheral vascular resistance or increase in both can be seen in patients

with essential hypertension. The interactions of multiple environmental and genetic factors contribute to the complex trait of essential hypertension and also it varies among different individuals.⁽¹⁾

Low birth weight, exposure to air and noise pollution as well as chronic stress has emerged as potentially important factors influencing the risk of hypertension.⁽¹⁾

The differences in BP response to salt intake might distinguish salt sensitive subjects from salt resistant subjects. These differences are due to different expression of genes that are important for sodium handling by the kidney and whose expression is altered by the composition of various diets, supporting the hypothesis that high dietary sodium intake is a major contributor to essential hypertension.⁽¹⁾

An increased muscle sympathetic activation after mental stress in young borderline hypertensive men has been demonstrated. As a result of increases in BP caused by stress induced SNS activation, it results in small injuries to target tissues, especially the kidneys which accumulate overtime and causes chronic hypertension⁽¹³⁾.

Gene variants and epigenetic modifications have an important influence on the risk of hypertension⁽¹⁴⁾.

Vascular factors

A relative increase of endothelin 1 vasoconstrictor tone compared to the vasodilatory effect of NO is noticed in essential hypertension⁽¹⁵⁾

In the etiopathology of essential hypertension Structural and vascular factors are involved either in the micro/macrovaskulature, leading to increased total peripheral resistance and arterial stiffening, respectively.

The key regulator of vascular homeostasis has emerged as endothelium. Alterations in endothelium function precede the development of morphological microvascular changes and can also contribute to lesion development in large vessels and later complications. The response of endothelium to physical and chemical signals is by the production of wide range of factors that regulate vascular tone, cellular adhesion thromboresistance, smooth muscle cell proliferation and, vessel wall inflammation⁽¹⁶⁾

Myogenic tone is an intrinsic property of vascular smooth muscle cells. Independent of neural/hormonal influences an increased transmural pressure induces stretching and contraction of vascular wall smooth muscle cells. It protects the distal capillaries against deleterious BP elevations but also cause an increase in total peripheral resistance which sustains elevation of systemic BP values. ⁽¹⁷⁾

CLASSIFICATION - ⁽¹⁸⁾

Table no.1.Blood Pressure Categories			
Category	Systolic (mmHg)		Diastolic (mmHg)
Normal	< 120	and	< 80
Prehypertension	120 – 139	Or	80 – 89
Hypertension			
Stage 1	140 – 159	Or	90 – 99
Stage 2	≥ 160	or	> 100

3.6.CLINICAL FEATURES

1. Essential hypertension is asymptomatic but may have been present for many years it is important to take a history for any end organ damage
2. Headache-more prominent in secondary/malignant hypertension.
3. Weakness of memory
4. Chest pain ,breathlessness
5. Palpitations. ⁽¹⁹⁾

High blood pressure symptoms

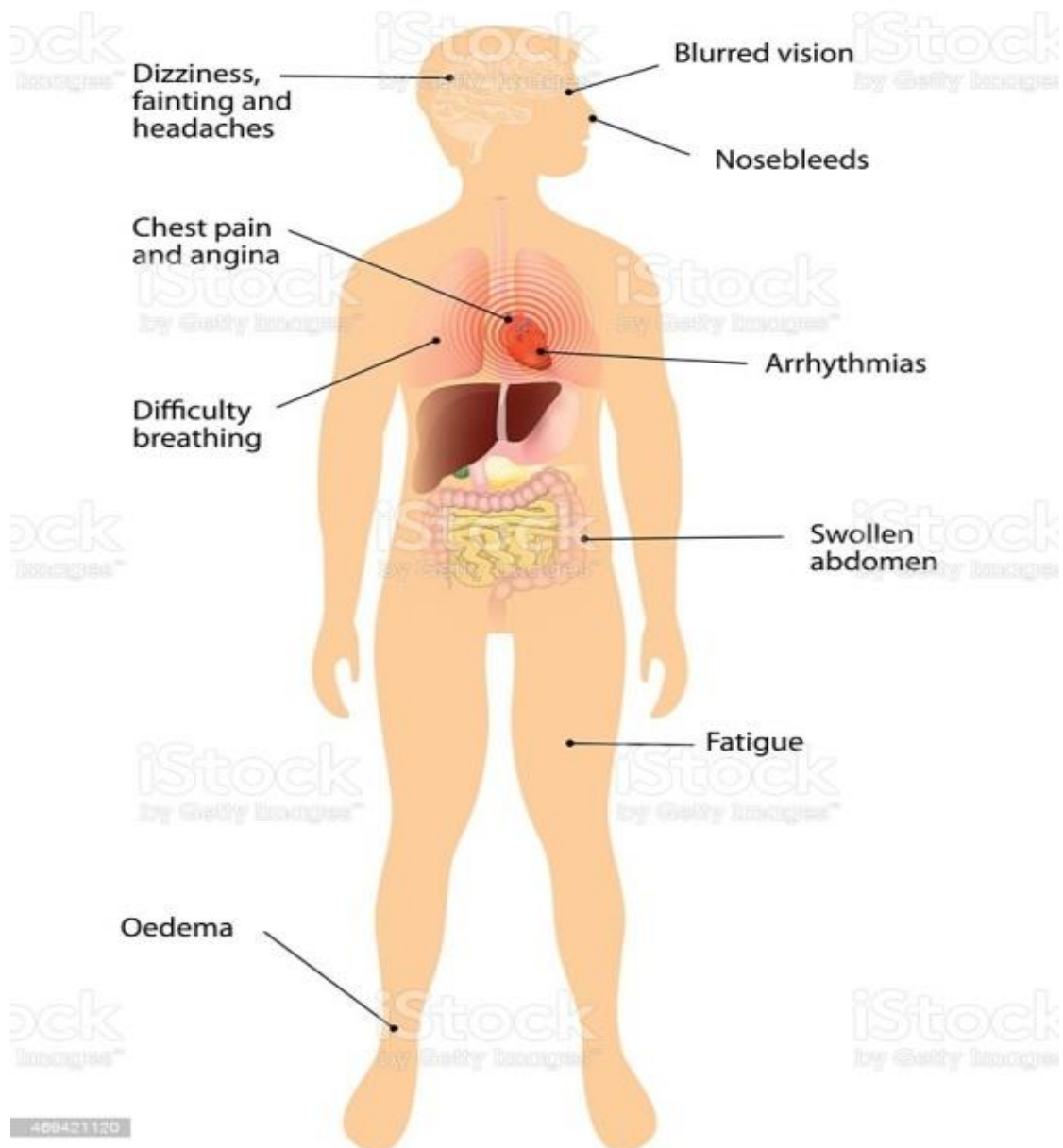


Fig .no.1.symptoms of high blood pressure

3.7.DIAGNOSIS

Essential hypertension detected by routine screening/opportunistic measurement of blood pressure as it is invariably symptomless. Two important caveats to the symptomless nature of essential hypertension are-

1. Symptoms may occur as a result of target organ damage.
2. Severe hypertension may present as headache.⁽¹⁾

In order to measure B.P, the patient should remain seated clearly for at least 5 minutes before taking the blood pressure, and proper technique is necessary. Also the blood pressure cuff should cover 80% of arm circumference because larger/smaller pressure cuffs can falsely underestimate/overestimate blood pressure readings.

To identify individuals with masked hypertension as well as white coat hypertension and also to diagnose hypertension, ambulatory blood pressure measurement is the most accurate method.

The evaluation consists of looking for signs of end-organ damage and consists of the following

1. 12 lead ECG (to document left ventricular hypertrophy, cardiac rate, and rhythm).



Fig no.2. left ventricular hypertrophy

2. Fundoscopy - to look for retinopathy/maculopathy.

3. Blood-complete blood count,ESR,creatinine,GFR,electrolytes,HbA1C,Thyroid profile,blood cholesterol levels,serum uric acid.

4. Urine -Albumin to creatinine ratio.

5. Ankle-brachial pressure index(if symptoms suggestive of peripheral arterial disease).

6. Imaging –carotid Doppler ultrasound,echocardiography and brain imaging⁽¹⁹⁾

3.7.1 PHYSICAL EXAMINATION

Most cases of hypertension are asymptomatic and are discovered incidentally on blood pressures recording/measurement.

Some cases present with symptoms of end-organ damage as stroke like symptoms/hypertensive encephalopathy,chest pain,shortness of breath and acute pulmonary oedema.

Physical examination may be unyielding other than occasional pedal oedema/raised blood pressure,but one needs to look for signs of

- Coarctation of aorta(radius-radial delay,radius-femoral delay,differences in left arm and right arm bp,or upperarm and lower arm bp more than 20 mmhg.
- Aortic valve disease(systolic ejection murmur,4th heart sound)
- Renovascular disease/fibromuscular dysplasia(renal bruit,carotid bruit)
- Polycystic kidneys(enlarged kidneys bilaterally)
- Endocrine disorders(hypercortisolism-thin skin,easy bruising,hyperglycemia)
- Thyroid disorders-palpable/painful/ enlarged thyroid
- The presence of 4th heart sound-represents a stiff and non-compliant left ventricle,hints towards left ventricular hypertrophy and diastolic dysfunction.
- Presence of lung rales and/peripheral oedema suggests cardiac dysfunction and gives a clue to the chronicity of hypertension⁽¹⁹⁾

3.7.3 DIFFERENTIAL DIAGNOSIS

1.Chronic kidney disease-In this condition the differentiating features include oedema,pruritis/change in urine output.High serum creatinine and chronic anaemia may be seen.⁽²⁰⁾

2.Aortic coarctation –differential blood pressure in upper and lower extremities.CT,angiogram and MRI helps in diagnosis.⁽²⁰⁾

3.Pheochromocytoma-paroxysms of hypertension,headache and flushing.24-hr urine shows elevated vanillyl mandelic acid

4.Hypothyroidism-Another major factor contributing to hypertension.

5.Hyperaldosteronism –due to aldosterone secreting adenoma/bilateral adrenal hyperplasia.This condition should be suspected when hypokalemia is present in a patient with hypertension off diuretics.⁽²¹⁾

6.Renal artery stenosis-presents with recent onset of hypertension,abdominal bruit is present in 50% cases.Also hypokalemia due to activation of renin angiotensin system may be present.⁽²¹⁾

7.Cushings syndrome-common manifestations include central obesity,hypertension,osteoporosis,psychological disturbances,acne,hirsutism,amenorrhoea and diabetes mellitus.Hypokalemia and metabolic acidosis are also present.⁽²¹⁾

3.8.HOMOEOPATHIC ASPECT OF ESSENTIAL HYPERTENSION

Homoeopathy treats the sick individual,not only his sickness.Thus in the case of essential hypertension,homoeopathy is concerned with the people having high blood pressure rather than hypertension itself.Also it is the sick man who has to restore to health,not his tissues,not his body. To develop essential hypertension it is the constitutional make up of an individual and the environmental influences that predispose a person to develop essential hypertension.Hence the totality of various characteristic symptoms narrated by the patient and the peculiar signs leads the homoeopath towards similar remedy that relieves the totality of symptoms and also symptoms of increased blood pressure⁽²²⁾

APPROACH TO ESSENTIAL HYPERTENSION

One must rule out the etiological factors, underlying pathology and the clinical presentation of the patient in general to understand the miasmatic influences in primary hypertension. The principle of similia underlies the management of essential hypertension. Being a chronic disorder, it needs constitutional antimiasmatic treatment. Dr. Hahnemann stated that the emotional reactions and mental disposition of the patient are to be particularly noticed as they often govern the remedy. This statement about hypertension is applied naturally to the cases of essential hypertension as there are the psychological factors that are responsible for the causation of the disease. The remedy selected corresponds to the dominant miasm, as hypertension is a multimiasmatic disease

Psoric miasm

If hypertension caused by prolonged emotional disturbances like anxieties, anger, worries, grief etc. the blood pressure elevation subsides with the relief of above issues. Patients with psoric predominance are likely to develop these symptoms. The psoric element is associated with many sensations, modalities and concomitants reflect the true picture of the suffering. It is closely linked with heart trouble and could prove fatal.

Sycotic miasm

The element of excess is found in sycotic diseases. Metabolic syndrome is actually a mixture of excess in different systems, as excessive fat deposition, hypertrophy of organs, accumulation of fluid in the body, obesity etc. are all sycosis and are leading causes of hypertension. HTN is usually an expression of sycosis, here the coordinations of body functions is lost and they become excess.

Syphilitic miasm

The syphilitic taint in primary/essential hypertension presents with destructive changes in organs like retina, brain, heart and kidneys. and also these patients are prone to die suddenly without giving any warning.

Tubercular miasm

Tubercular miasm presents with numerous subjective symptoms, there is a combination of the mental reactions of psora combined with the pathological changes in syphilis. Also these patients have a wide range of fluctuations in blood pressure and they are predisposed to haemorrhagic manifestations as retinal haemorrhages, epistaxis etc.⁽²²⁾

3.9.HOMOEOPATHIC REMEDIES USED FOR TREATMENT OF ESSENTIAL HYPERTENSION

Belladonna—It is suitable when the symptoms come suddenly and violently. Rush of blood towards head and face with hot flushed face, dilated pupils and accelerated pulse rate. Congestive and frequent types of headaches, throbbing in the temporal arteries. Presence of generalized heat but coldness of hands and feet of the patient is noticed. Vertigo with headache aggravated from least jar, noise, light etc. Headache ameliorates by covering the head.⁽²²⁾

Aurum met.—Hypertensive problems related to stress/excessive worries. Indicated to highly impulsive persons with sensation as if the heart would stop beating for few minutes and then again beat with sudden thump. Hypertrophy of the heart without dilatation. Complaints aggravated at night.⁽²²⁾

Argentum Nitricum—This remedy is indicated if the blood pressure elevates with nervousness and anxiety. Anticipation induces diarrhea, frequent urination, headache, dizziness and bounding pulse. Patient is highly impulsive and has many fears and phobias. Patient has great desire for sweet things.⁽²²⁾

Lachesis mutans—This remedy is indicated to persons with great loquacity and also with long lasting grief. Left side is principally affected. Intolerance of tight bands about head and neck. Patients present with great mental and physical exhaustion, also trembling of whole body. Headache with pressing/bursting pain in temples. Rush of blood to head, left sided apoplexy. Climacteric ailments with hot flushes and hot perspiration, burning vertex headache especially at or after the menopause.⁽²³⁾

Aurum metallicum-Indicated in patients with melancholy, weakness of intellectual faculties, weakness of memory. Vertigo when stooping, as if turning in a circle. Beating and hammering pain on one side the head. Also there is congestion of blood to head. There is anxious palpitation of the heart, from congestion to the chest. Restless sleep ,with anxious dreams. Also there is great sensibility to cold. Ameliorated by open air.⁽²⁴⁾

Arsenicum album-Indicated to persons with great anguish and restlessness. Also there is great and sudden prostration. Burning sensation of arsenic is greatly ameliorated by heat. Intense thirst is present with every complaint. Aggravation of symptoms in cold air, from cold things and amelioration by warm air or room and hot applications.⁽²⁵⁾

Natrum mur- is a deep acting remedy.Emaciation,nervous prostration, nervous irritability, weakness are key features of the remedy. The headaches are dreadful pains, bursting, compressing,the head feels as if the skull would be crushed in.Hammerring and throbbing sensation. Ameliorated in open air also by moderate exertion in cold air.⁽²⁶⁾

Glonoinum—cerebral congestion, or alternate congestion of the head and heart. Terrific shock in head synchronous with pulse. Throbbing, pulsating headache, holds head with both hands, could not lie down. Brain feels too large, full, bursting, blood seems to be pumped upwards, throbs at every jar, step,pulse.Violent palpitation with throbbing in carotids, heart's action oppressed. Convulsions of children from cerebral congestion.⁽²³⁾

ANXIETY AND GERIATRIC ANXIETY SCALE

Anxiety , also called as excessive worry, is common among patients with advanced illnesses. or when the anxiety causes significant distress to the patient and also it needs interventions,or if it exaggerates patient responses,anxiety becomes pathological. Chronic medical conditions are exacerbated by anxiety.

Prevalence

The one-year prevalence of anxiety in the general population is 3% to 8%. In the palliative care setting, the prevalence can be as high as 25%. The cause of anxiety can

be multifactorial. For the mental well being of the patient, Information, communication, and overall psychosocial support are priority needs. .(1)

GERIATRIC ANXIETY SCALE

The Geriatric Anxiety Scale is a 30-item self-report measure designed to assess, screen, and quantify severity of anxiety symptoms among older adults. It is a measure that covers three common domains of anxiety symptoms among older adults including somatic, cognitive, and affective symptoms.

Scoring

Geriatric Anxiety Scale provides a total score and 3 subscale scores for which normative and interpretive guidelines are available. The GAS total score is based on the first 25 items and ranges from 0 to 75.

3.10.PREVIOUS RESEARCH STUDIES ON ESSENTIAL HYPERTENSION

3.10.1.Are symptoms of anxiety and depression risk factors for hypertension?an epidemiological follow up study,

AIM-To test the hypothesis that symptoms of anxiety and depression increase the risk of experiencing hypertension,using the national health and nutrition examination/epidemiological follow –up study.

METHODS-In this study,a cohort of men and women without evidence of hypertension at baseline were followed up for 7-16 years.The association between two outcome measures that is hypertension and treated hypertension and baseline anxiety and depression was analyzed adjusting for hypertension risk factors.Analyses were stratified by race and age.A population based sample of 2992 initially normotensive persons were taken.

RESULTS-In this study,the multivariate models for the whites aged 45-64 yrs,high anxiety and high depression remained independent predictors of incident

hypertension. The risks associated with treated hypertension were also increased for high anxiety and high depression. For blacks aged 25-64 years high anxiety and high depression remained independent predictors for incident hypertension. The risks associated with treated hypertension were also increased for high anxiety and high depression. For whites aged 25-44 yrs, intermediate anxiety and intermediate depression remained independent predictors of treated hypertension.

Concluded that anxiety and depression are predictive of later incidence of hypertension and prescription treatment for hypertension.⁽²⁷⁾

3.10.2. A case control study on depression and anxiety in hypertensive patients-

AIM: To study the current situation of depression and anxiety from patients with hypertension as well as to provide reference for the development of control and prevention program.

METHODS: In this study, participants older than 35 year old including both hypertensive and healthy controls were randomly selected through health behavior survey. All the subjects were assessed by zung's self rating depression scale (SDS) and the zung's self-rating anxiety scale (SAS).

RESULTS: Raw score and index score of SDS and SAS were both significantly greater in hypertensive patients than in healthy control group. Also there was a combined effect seen between depression and anxiety but interaction did not appear. The study concluded that depression and anxiety were possibly associated with hypertension and more attention needs to be paid to the mental health situation of hypertensive patients in order to improve their quality of life.⁽²⁸⁾

3.10.3. The association between mood and anxiety disorders with vascular diseases and risk factors in a nationally representative sample.

AIM: To investigate the association between mood and anxiety disorders and vascular diseases after controlling for vascular disease risk factors.

METHODS: From a nationally representative sample of adults from the national comorbidity replication survey, participants with mood disorders were hierarchically

classified as having any history of mania,hypomania or major depression.Anxiety disorders were also assessed..The reference group consisted of those without mental disorders.Vascular disease determined byself-reported history of heart disease,heart attack,or stroke on the survey.

RESULTS:The results showed that vascular disease was associated with bipolar disorder in women and major depressive disorder in men.Controlling for anxiety disorders reduced the associations in both men and women,and infact,anxiety disorders were more strongly associated with vascular diseases in men,whereas bipolar disorder continued to be an important correlate of vascular disease in women.⁽²⁹⁾.

3.10.4:Antianxiety treatment in patients with excessive hypertension.

AIM:To compare the efficacy and safety of antianxiety treatment with sublingual captopril administration in patients with excessive hypertension and no evidence of acute target organ damage.

METHODS:In this study,thirty-six patients with age range 36-85 yrs who were referred to the emergency room because of excessive hypertension without evidence of acute target organ damage were randomized to receive either oral diazepam or sublingual captopril,blood pressure and heart rate were recorded hourly for 3 hours.

RESULTS:Antianxiety treatment is effective in lowering BP in patients with excessive hypertension.Thus ,anxiolytic treatment may be considered in patients with excessive hypertension without acute target organ damage^{.(30)}.

4.MATERIALS AND METHODS

4.1.STUDY SETTING

A sample of 15 cases taken from patients with essential hypertension visiting the OPD,IPD and peripheral centers of Sarada Krishna Homoeopathic Medical college for homoeopathic treatment were randomly assigned in the study.

4.2.SELECTION OF SAMPLES

Sample size:15 cases

Sampling technique:purposive sampling

4.3.METHODOLOGY

15 cases that have essential hypertension in geriatric age group confirmed after general and physical examination along with diastolic and systolic values were selected from OPD,IPD and peripheral centers of Sarada Krishna Homoeopathic Medical College Hospital .The case details were written in the standardized case format of Sarada Krishna Homoeopathic Medical College .All the cases were analysed for anxiety using geriatric anxiety scale.Then the cases were analyzed,and the totality was erected after which symptoms were evaluated.The cases were repertorised and a constitutional remedy was prescribed.Potency selection and repetition of doses will be done based on the homoeopathic principles and according to the need of the case.Assessment done in 15 days interval and the changes were recorded.After completion of 5-6 months of follow up measurement of hypertension before and after treatment were assessed.Anxiety was also recorded for individual cases using GAS.The results will be subjected to analysis using student “t” test.Also relationship between BP and Anxiety was analysed using correlation coefficient.

4.4.INCLUSION CRITERIA

- Patients of age group above 65 years
- Both sexes are included
- Confirmed cases of essential hypertension after screening

4.5.EXCLUSION CRITERIA

- Patients below 65 years of age
- Patients suffering from other severe systemic diseases

4.6.TOOL USED:GERIATRIC ANXIETY SCALE

4.7.OUTCOME ASSESSMENT

Changes in the cases of essential hypertension and anxiety were noted and scoring was done accordingly. Remedies according to symptom similarity were prescribed. Percentage of association between anxiety and essential hypertension is assessed and the correlation is studied.

4.8.STATISTICAL TECHNIQUES AND DATA ANALYSIS

Pre and post test assessment was done and analysis was done by paired t test and correlation tests.

5.OBSERVATION AND RESULTS

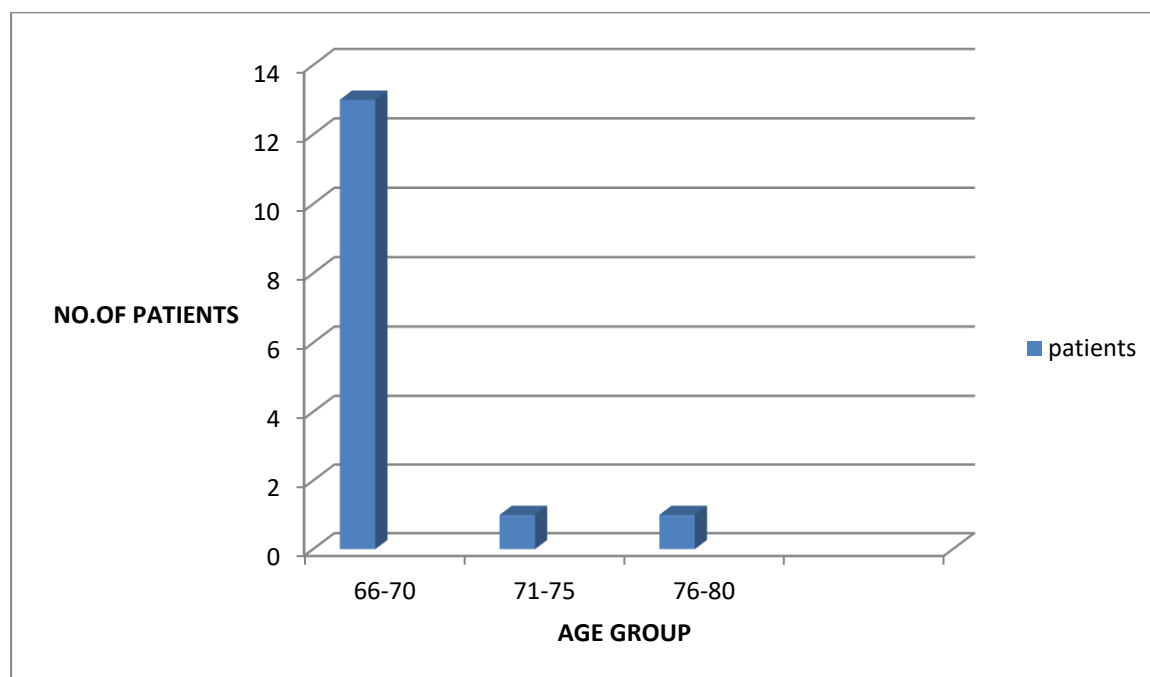
A single arm,experimental prospective study carried out on a sample of 15 patients in geriatric age group who attended the OPD,IPD and Peripheral centres of Sarada Krishna Homoeopathic Medical College and Hospital,Kulasekharam .All 15 cases were followed up for 6 months and subjected to statistical study.The results are presented on the basis of data obtained from study group.From the data obtained here the results are presented in the following tables.The following tables and charts reveal the observations and reults of the study.

5.1.Distribution of cases according to age

Table No.2

AGE GROUP	No.OF PATIENTS	PERCENTAGE
66-70	13	86.66%
71-75	1	6.66%
76-80	1	6.66%

Fig No.3. Distribution of cases according to age



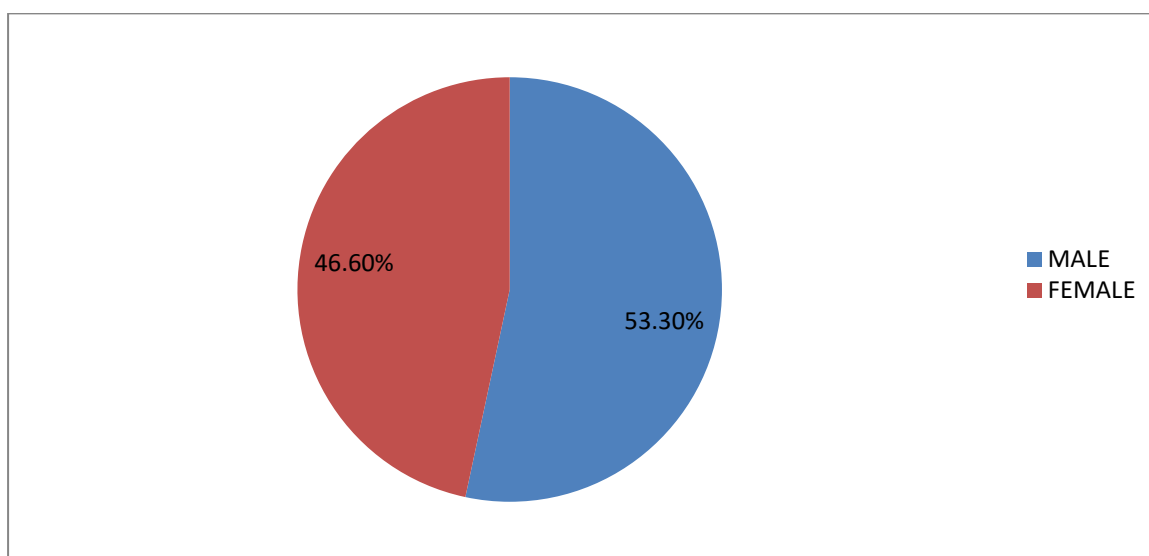
The distribution of patients according to age was analyzed in Table No.2.The age of the sample varies from 66-78 years.Out of 15 cases the highest percentage 86.66%(13) were between 66-70 years when compared with frequency in other age groups which are 6.66% in both.The pictorial representation of the same parameters is shown in Figure No.3.

5.2.Distribution of cases according to sex

Table No.3

SEX	NO.OF CASES	PERCENTAGE
MALE	8	53.3%
FEMALE	7	46.6%
TOTAL	15	

Fig no.4. Distribution of cases according to sex



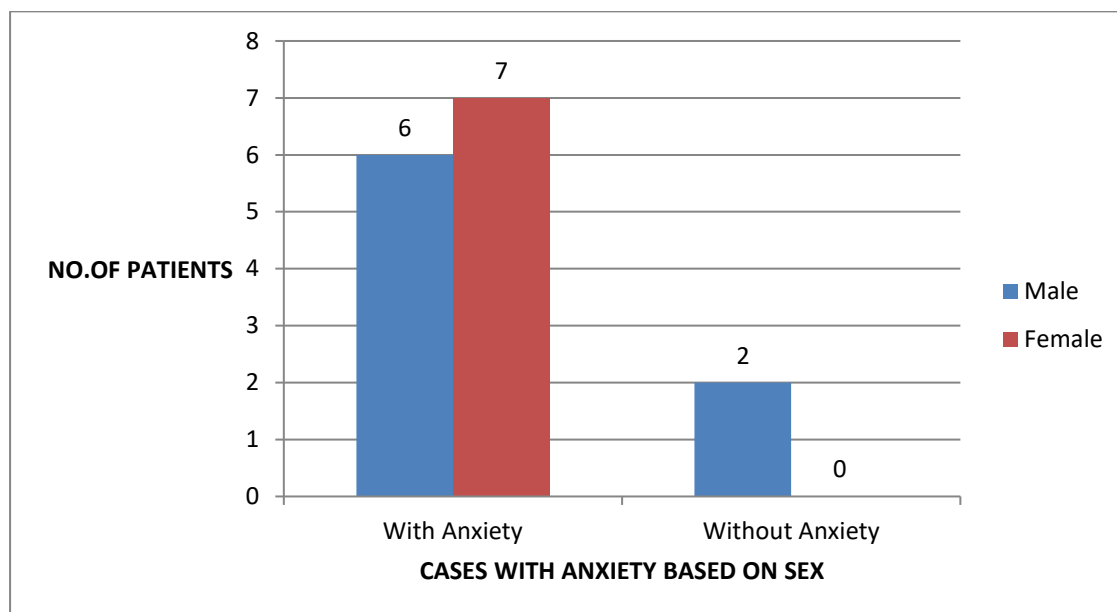
The distribution of patients according to sex was analyzed in Table No 3 .Out of 15 patients studied 8 patients were males with a percentage of 53.3% and 7 patients were females with percentage of 46.6%.Thus females and males are almost equally affected.The pictorial representation of the same parameters is shown in figure No.4.

5.3.Distribution of cases with anxiety based on sex

Table No.4

SEX	MALE	FEMALE	TOTAL	PERCENTAGE
CASES WITH ANXIETY	8	7	15	100%
CASES WITHOUT ANXIETY	0	0	0	0
TOTAL	8	7	15	

Fig no.5. Distribution of cases with anxiety based on sex



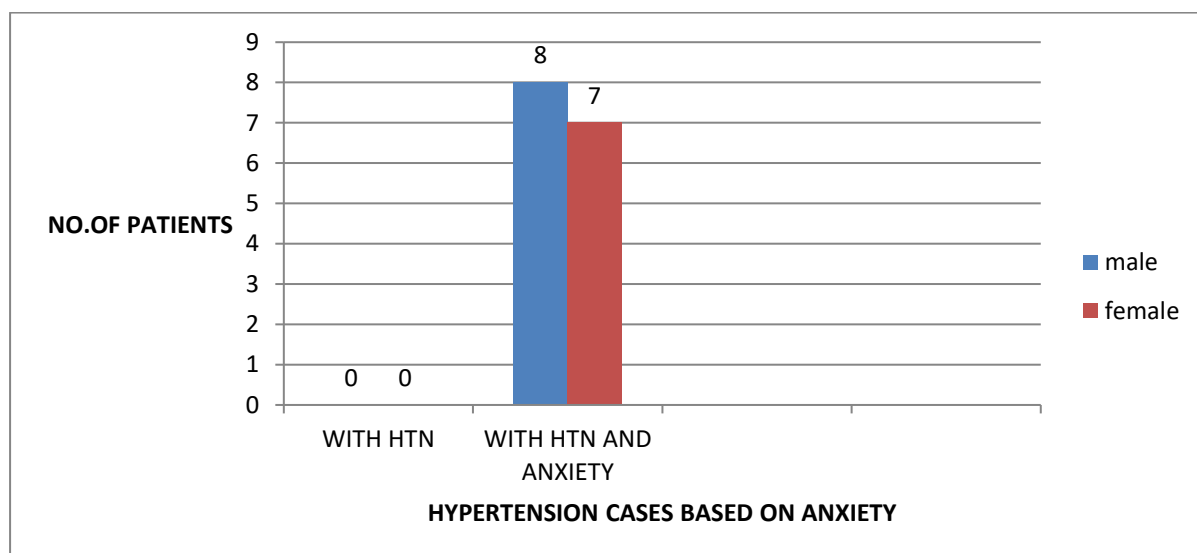
The distribution of patients based on anxiety was analysed in Table No.4 .Out of 15 cases,all(100%) are found to have anxiety.Increased anxiety was found in female as compared with male.The pictorial representation of the same parameters is shown in Figure No.5.

5.4.Distribution of cases with hyper tension based on anxiety

Table No.5

SEX	MALE	FEMALE	TOTAL	PERCENTAGE
No.OF PATIENTS WITH HYPERTENSION ONLY	0	0	0	0
No.OF PATIENTS WITH HYPERTENSION AND ANXIETY	8	7	15	100%

Fig no.6.Distribution of cases with hyper tension based on anxiety



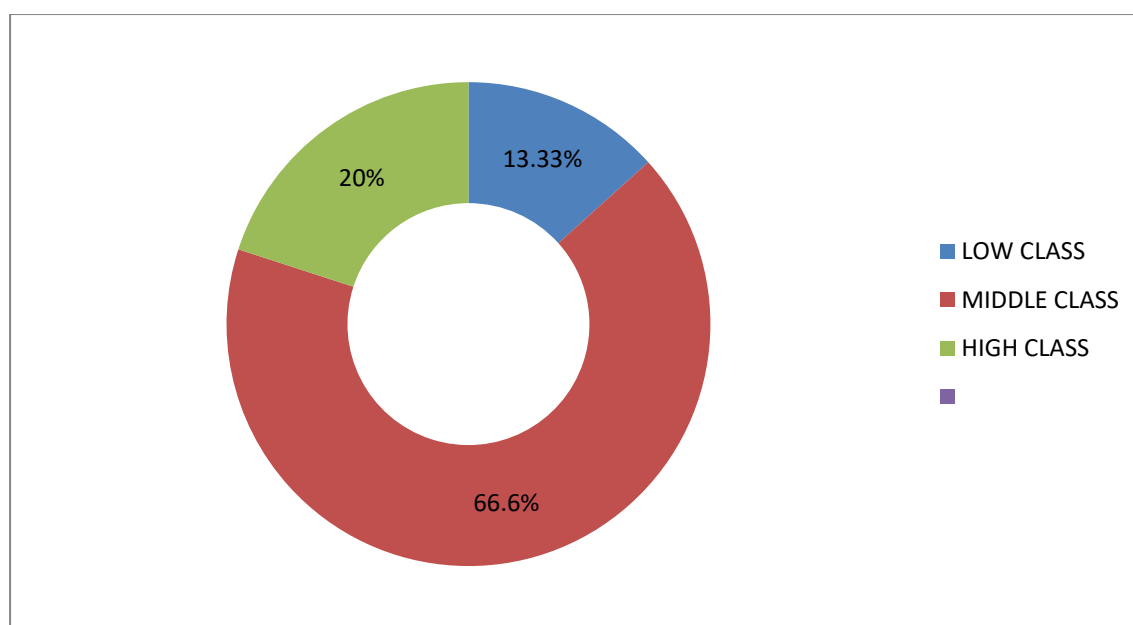
The distribution of cases with anxiety and hypertension as compared with patients having hypertension only was analysed in Table No.5. Out of 15 patients all (100%) are found to have both HTN and Anxiety. The pictorial representation of same parameters is shown in Figure No.6.

5.5.Distribution of cases according to socioeconomic status

Table No.6

SOCIOECONOMIC STATUS	No.OF CASES	PERCENTAGE
LOW CLASS	2	13.3%
MIDDLE CLASS	10	66.6%
HIGH CLASS	3	20%
TOTAL	15	

Fig no.7.Distribution of cases according to socioeconomic status



The distribution of cases according to socioeconomic status was analysed in Table No.6 .Out of 15 cases ,2(20%) are from low socioeconomic status and 10(66.6%) are from middle class and 3(13.33%) are from high class group.The pictorial representaion of the same is shown in Figure No.7.

5.6.Distribution of cases based on dwellings

Table no.7

DWELLING	NO.OF CASES	PERCENTAGE
RURAL	9	60%
SUBURBAN	5	33.3%
URBAN	1	6.6%
TOTAL	15	

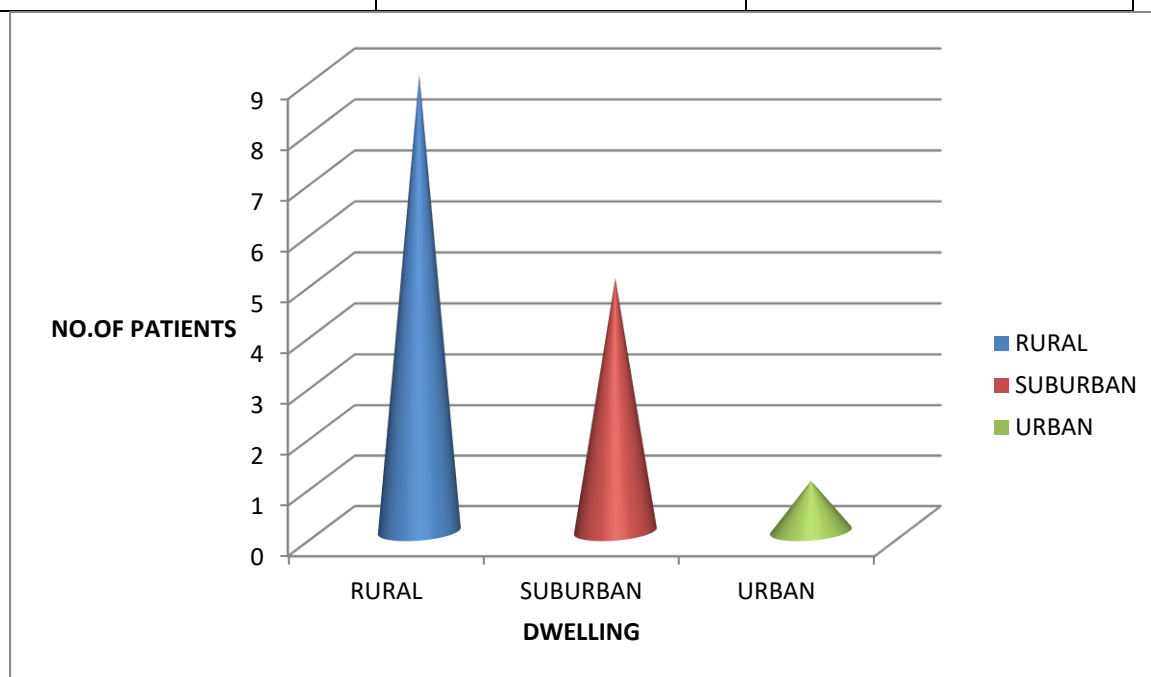


Fig no.8. Distribution of cases based on dwellings

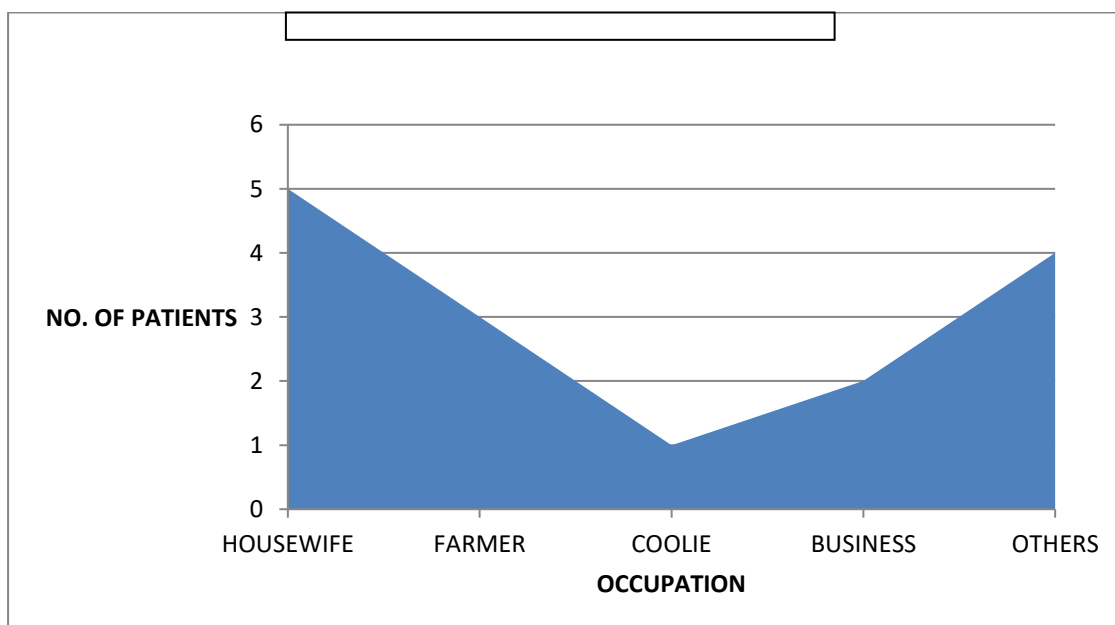
The distribution of cases based on dwellings were analysed in Table No.7 .Out of 15 cases9 (60%)were from rural ,5(33.33%) were from suburban and 1% were from urban.The pictorial representation of the same parameters is shown in Figure No.8.

5.7.Distribution of cases according to occupation

Table No.8

OCCUPATION	NO.OF PATIENTS	PERCENTAGE
HOUSEWIFE	5	33.33%
FARMER	3	20%
COOLIE	1	6.66%
BUSINESS	2	13.33%
OTHERS	4	33.33%

Fig no.9. Distribution of cases according to occupation



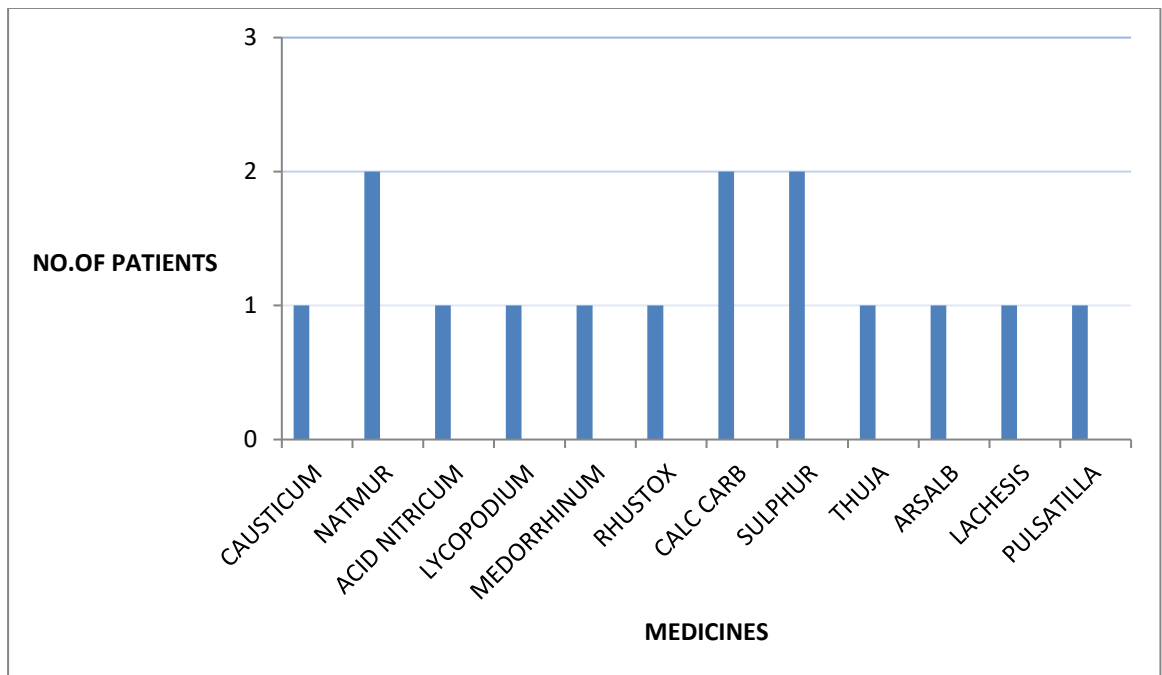
The distribution of cases according to occupation was analysed in Table No.8. Out of 15 cases 5(33.33%) were housewives, 3(20%) were farmers, 1(6.66%) was coolie and 2(13.33%) were into business. Others included accountant, retired police officer, fisherman and rubber tapping. The pictorial representation of the same is shown in Fig No.9.

5.8.Number of Patients according to medicines

Table No.9

MEDICINES	No.OF PATIENTS	PERCENTAGE
CAUSTICUM	1	6.66%
NATRUM MUR	2	13.33%
ACID NITRICUM	1	6.66%
LYCOPodium	1	6.66%
MEDORRHINUM	1	6.66%
RHUSTOX	1	6.66%
CALC CARB	2	13.33%
SULPHUR	2	13.33%
THUJA	1	6.66%
ARSALB	1	6.66%
LACHESIS	1	6.66%
PULSATILLA	1	6.66%
TOTAL	15	

Fig no.10.Distribution of Patients according to medicines



The distribution of patients according to remedies were analyzed in Table No.9

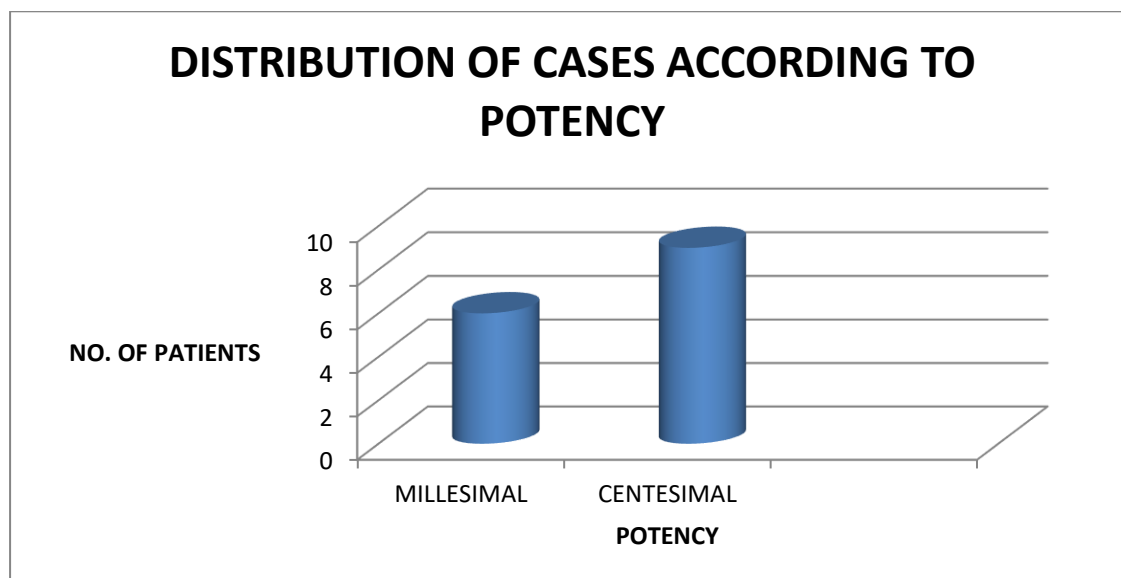
Among the 15 cases studied,2 cases were given remedy Natrum Muriaticum,and Calcarea Carb for 2 cases,Sulphur for 2 cases ,followed by remedies like Causticum,Acid nitricum,Lycopodium,Medorrhinum,Rhustox,,Thuja,Arsenicum album,Lachesis and Pulsatilla 1 patient each.The pictorial representation of the same is illustrated in Fig No.10.

5.9.Distribution of cases according to potency

Table no.10

POTENCY GIVEN	NO.OF PATIENTS	PERCENTAGE
Millesimal	6	40%
Centesimal	9	60%
TOTAL	15	

Fig no.11.Distribution of cases according to potency



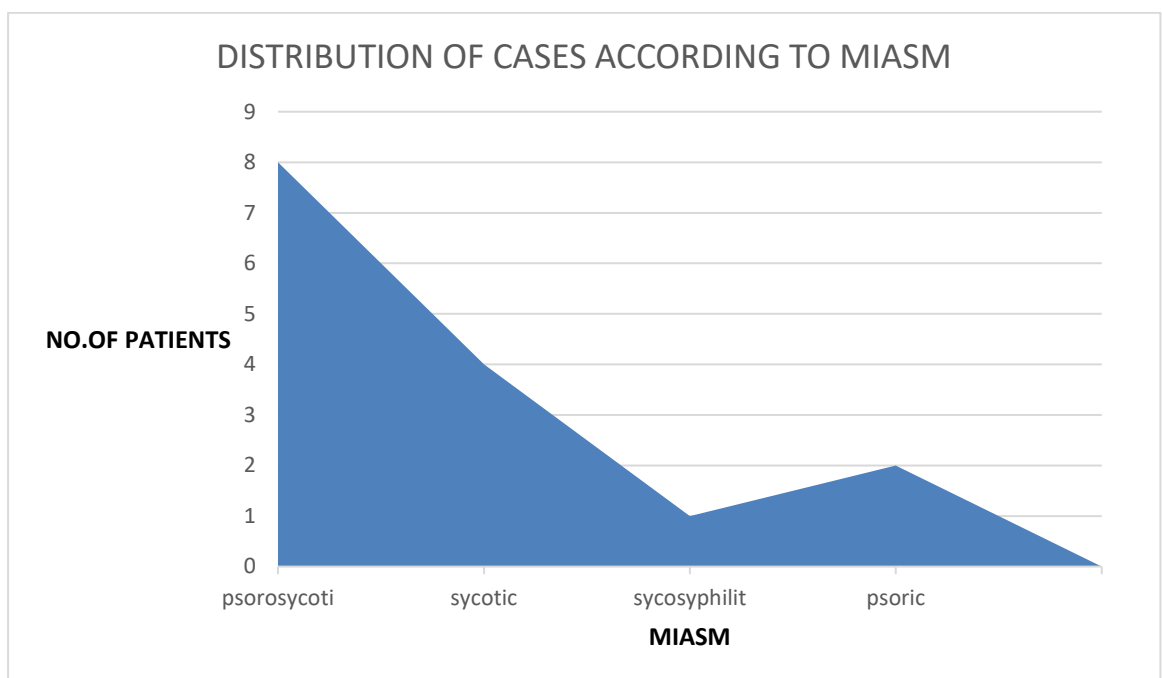
The distribution of patients according to potency was analyzed in table No.10.Among 15 cases studied9 cases received centesimal potency and 6 cases received millesimal potency..The distribution of patients according to potency was analyzed in Table no.9 and among 15 cases studied 9 cases(60%) received centesimal potency and 6 cases (40%)received millesimal potency.The pictorial representation of the same parameters is shown in Figure.No.10.

5.10:Distribution of cases according to miasm

Table no.11:

MIASM	NO.OF CASES	PERCENTAGE
PSOROSYCOTIC	8	53.33%
SYCOTIC	4	26.6%
SYCOSYPHILITIC	1	6.66%
PSORIC	2	13.33%

Fig no.12. Distribution of cases according to miasm



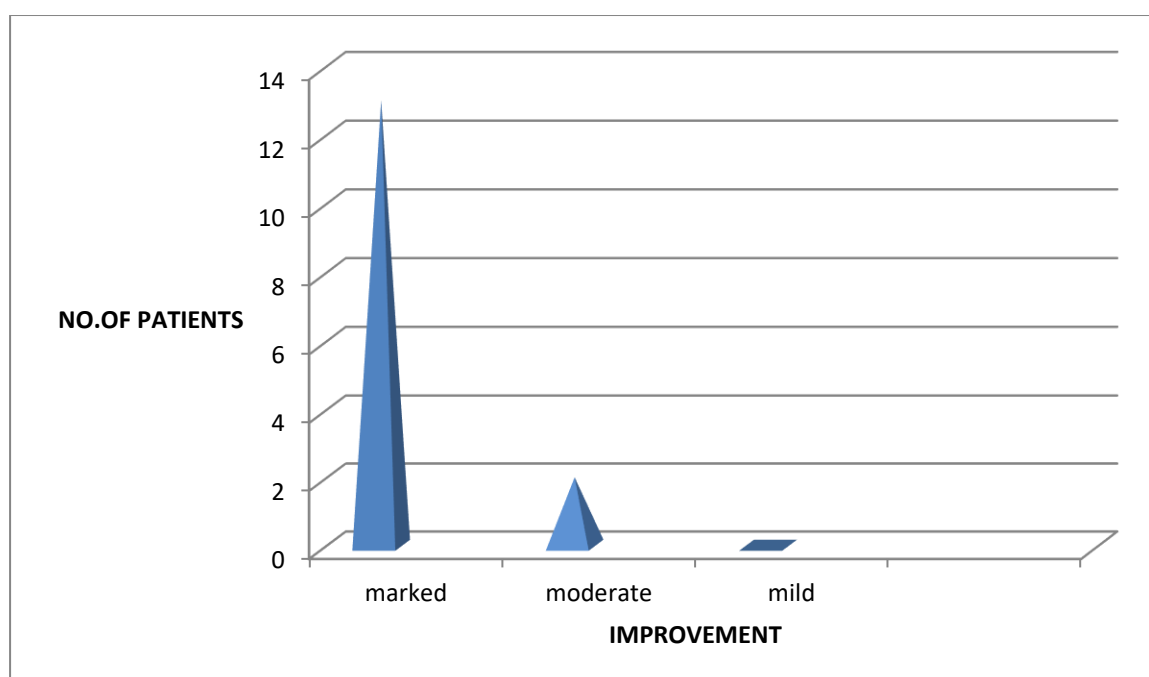
The distribution of cases according to miasm was analysed IN Table No.11.Majority i.e,8(53.33%)cases belongs to psorosycotic miasm ,4 (26.6%)in sycotic miasm,1 case(6.66%) in sycosyphilitic miasm,2 cases(13.33%) in psoric miasm.Here the sycotic nature of hypertension in combination with psora points out more because of underlying anxiety.The pictorial representation of the same is depicted in Fig.No.12.

5.11.Distribution of cases according to improvement

Table no.12. Distribution of cases based on improvement

RESULTS	NO.OF CASES	PERCENTAGE
MARKED	13	86.6%
MODERATE	2	13.3%
MILD	0	0%
TOTAL	15	

Fig no.13.Distribution of cases based on improvement



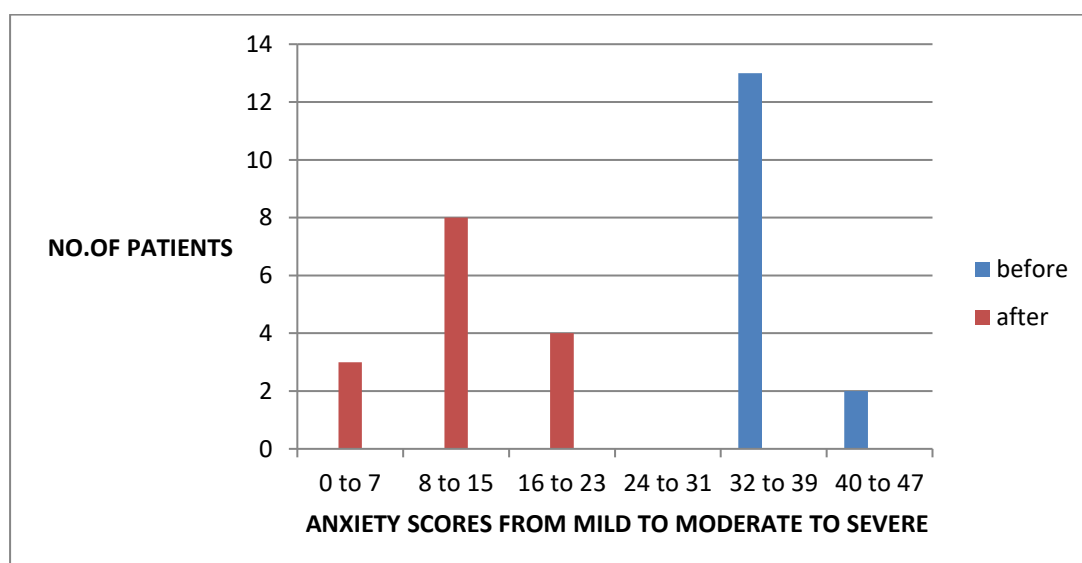
The distribution of patients according to improvement was analyzed in Table No.12 .Out of 15 cases 13(86.6%) patients shows marked improvement,and 2 patients (13.3%)moderate improvement and no patient shows mild improvement.The pictorial representation of the same parameters is shown in Figure No. 13.

5.11.Distribution of cases according to GAS scale before and after treatment

Table no.13: Distribution of cases according to GAS scale before and after treatment

GAS SCORE	BEFORE	AFTER
0-7	0	2
8-15	0	9
16-23	0	4
24-31	0	0
32-39	12	0
40-47	3	0

Fig no.14. Distribution of cases according to GAS scale before and after treatment



The distribution of patients according to GAS score was analyzed in Table No.13. Initially, the maximum frequency of 15 cases were in range 32-39 and 40-47 respectively before treatment, which corresponds to moderate to severe anxiety group. After treatment analysis shows that, 2 cases in 0-7 range with normal anxiety, 9 cases in 8-15 range and 4 cases in 16-23 range. Thus it is proved that after homoeopathic treatment the GAS score level of the patients were highly reduced. The pictorial representation of the same is shown in Fig No.14.

5.11.DISTRIBUTION OF CASES ACCORDING TO SYSTOLIC AND DIASTOLIC VALUES

Table no.14

CASES	PRESYSTOLE	PRE DIASTOLE	POST SYSTOLE	POST DIASTOLE
CASE 1	154	96	120	84
CASE 2	156	96	124	84
CASE 3	156	96	120	84
CASE 4	156	98	130	80
CASE 5	156	96	130	84
CASE 6	156	96	124	84
CASE 7	154	98	124	80
CASE 8	158	96	124	84
CASE 9	154	96	124	84
CASE 10	154	96	124	80
CASE 11	158	98	130	80
CASE 12	154	96	126	84
CASE 13	152	96	124	84
CASE 14	156	96	124	84
CASE 15	152	98	124	80

The comparison of cases based on systolic and diastolic values before and after treatment are depicted in Table no.12.As shown in the table,there is a marked reduction in the systolic and diastolic values after treatment.

6.STATISTICAL ANALYSIS

6.1.STATISTICAL ANALYSIS(Paired “t” test)

TABLE No:15 For systolic values

S.No.	X	Y	d1=X-Y	d1-d ⁻	(d1-d ⁻) ²
1	154	120	34	3.8	14.44
2	156	124	32	1.8	3.24
3	156	120	36	5.8	33.64
4	156	130	26	-4.2	17.64
5	156	130	26	-4.2	17.64
6	156	124	32	1.8	3.24
7	154	124	30	-0.2	0.04
8	158	124	34	3.8	14.44
9	154	124	30	-0.2	0.04
10	154	124	30	-0.2	0.04
11	158	130	28	-2.2	4.84
12	154	126	28	-2.2	4.84
13	152	124	28	-2.2	4.84
14	156	124	32	1.8	3.24
15	152	124	28	-2.2	4.84
TOTAL			$\Sigma d = 454$		$\Sigma d^2 = 127$

X=Systolic score before treatment Y=Systolic score after treatment

D-difference between before and after scores

A.Question to be answered

Is there any difference between systolic blood pressure before and after homoeopathic treatment for essential hypertension?

B.Null hypothesis

There is no difference between systolic blood pressure before and after homoeopathic treatment for essential hypertension

Standard error of mean differences

The mean of the differences, $\bar{d}_1 = \Sigma d_1 / n = 454 / 15$
 $= 30.26$

The estimate of population standard deviation is given by

$$\begin{aligned} S.D &= \frac{\sqrt{\Sigma (d_1 - \bar{d}_1)^2}}{n - 1} \\ &= \frac{\sqrt{127}}{14} \\ &= \sqrt{9.07} \\ &= \mathbf{3.01} \end{aligned}$$

$$\begin{aligned} \text{Standard error S.E} &= S.D / \sqrt{n} \\ &= 3.01 / 3.87 \\ &= \mathbf{0.77} \end{aligned}$$

A. the test statistics is paired t:

$$\begin{aligned} \text{Critical ratio , t} &= \frac{\bar{d} - \mu}{SD / \sqrt{n}} \\ &= 30.26 / .77 \\ &= \mathbf{39.29} \end{aligned}$$

E. Comparison with tabled value : This critical ratio, t follows a distribution with n-1 degree of freedom. The 5% level is 2.745 and 1% level is 2.977 for 14 degrees of freedom. Since the calculated value 39.29 is greater than tabled value at 5% and 1% level, the test is statistically significant and hence the null hypothesis is rejected

F. Inference : This study shows significant reduction in the systolic score after giving homoeopathic medicines. Therefore, homoeopathic medicines are effective in the treatment of elevated systolic B.P.

6.2.TABLE No:16,Paired “t”-For diastolic values

S.No.	X	Y	d=X-Y	d ¹	(d-d ¹) ²
1	98	80	18	4.14	17.1396
2	98	80	18	4.14	17.1396
3	98	80	18	4.14	17.1396
4	96	84	12	-1.86	3.4596
5	96	84	12	-1.86	3.4596
6	96	84	12	-1.86	3.4596
7	96	84	12	-1.86	3.4596
8	96	84	12	-1.86	3.4596
9	96	84	12	-1.86	3.4596
10	96	80	16	2.14	4.5796
11	96	84	12	-1.86	3.4596
12	96	84	12	-1.86	3.4596
13	96	84	12	-1.86	3.4596
14	96	84	12	-1.86	3.4596
15	98	80	18	4.14	17.1396
TOTAL			Σ d=208		107.73

X=Systolic score before treatment Y=Systolic score after treatment

D-difference between before and after scores

A.Question to be answered

Is there any difference between diastolic blood pressure before and after homoeopathic treatment for essential hypertension?

B.Null hypothesis

There is no difference between diastolic blood pressure before and after homoeopathic treatment for essential hypertension

The mean of the differences, $\bar{d}_1 = \Sigma d_1 / n = 208 / 15 = 13.86$

The estimate of population standard deviation is given by,

$$\begin{aligned} S.D &= \frac{\sqrt{\Sigma (d_1 - \bar{d}_1)^2}}{n - 1} \\ &= \frac{\sqrt{107.73}}{14} \\ &= \underline{\underline{2.77}} \end{aligned}$$

$$\begin{aligned} \text{Standard error (S.E)} &= S.D / \sqrt{n} = 2.77 / \sqrt{15} \\ &= \underline{\underline{0.71}} \end{aligned}$$

D. The test statistics is Paired t

$$\begin{aligned} \text{Critical ratio, } t &= \frac{\bar{d} - \mu}{S.D / \sqrt{n}} \\ &= 13.86 / 0.71 \\ &= \underline{\underline{19.5}} \end{aligned}$$

E. Comparison with tabled value : This critical ratio, t follows a distribution with n-1 degree of freedom. The 5% level is 2.745 and 1% level is 2.977 for 14 degrees of freedom. Since the calculated value 19.5 is greater than tabled value at 5% and 1% level, the test is statistically significant and hence the null hypothesis is rejected.

F. Inference : This study shows significant reduction in the diastolic score after giving homoeopathic medicines. Therefore, homoeopathic medicines are effective in the treatment of elevated diastolic B.P.

6.3.STATISTICAL ANALYSIS FOR ANXIETY SCALE SCORES

Table No:17

S.No	X	Y	d1=X-Y	d1-d ⁻	(d1-d ⁻) ²
1	32	6	26	.8	.64
2	33	9	24	-1.2	1.44
3	36	8	28	2.8	7.84
4	40	16	24	-1.2	1.44
5	39	16	23	-2.2	4.84
6	39	14	25	-0.2	.04
7	42	16	28	2.8	7.84
8	35	10	25	-0.2	.04
9	35	16	19	-6.2	38.44
10	33	10	23	-2.2	4.84
11	44	10	34	8.8	77.44
12	34	9	25	-0.2	.04
13	33	7	26	.8	.64
14	35	9	26	-1.2	1.44
15	33	9	24	-1.2	1.44
TOTAL			378		148.8

X= Score before treatment; Y= Score after treatment

d1= Difference between before and after score

A. Question to be answered

Is there any difference between the GAS score taken before and after the

Homoeopathic treatment ?

B. Null Hypothesis

There is no difference between the GAS score taken before and after the

Homoeopathic treatment.

C. Standard error of the mean differences

The mean of the differences, $d1^- = \Sigma d1/n = 378/15 = 25.2$

Estimate of population standard deviation is given by:

$$S.D = \frac{\sqrt{\Sigma(d1 - \bar{d1})^2}}{n - 1}$$

$$= 3.2$$

$$SE = SD/\sqrt{n}$$

$$= 3.2/3.87$$

$$= \underline{0.82}$$

$$\text{Critical Ratio } t = \frac{d^-}{SD/\sqrt{n}}$$

$$= 25/0.82$$

$$= \underline{30.48}$$

E. Comparison with tabled value : This critical ratio, t follows a distribution with $n-1$ degree of freedom. The 5% level is 2.745 and 1% level is 2.977 for 14 degrees of freedom. Since the calculated value 30.48 is greater than tabled value at 5% and 1% level, the test is statistically significant and hence the null hypothesis is rejected

F. Inference : This study shows significant reduction in the GAS score after giving homoeopathic medicines. Therefore, homoeopathic medicines are effective in the treatment of anxiety.

TABLE NO.18. CORRELATION TEST

CASES	PRESYSTOLE	PRE DIASTOLE	POST SYSTOLE	POST DIASTOLE	Before scores for anxiety	After scores for anxiety
CASE 1	154	96	120	84	32	6
CASE 2	156	96	124	84	33	9
CASE 3	156	96	120	84	36	8
CASE 4	156	98	130	80	40	16
CASE 5	156	96	130	84	39	16
CASE 6	156	96	124	84	39	14
CASE 7	154	98	124	80	42	16
CASE 8	158	96	124	84	35	10
CASE 9	154	96	124	84	35	16
CASE 10	154	96	124	80	33	10
CASE 11	158	98	130	80	44	10
CASE 12	154	96	126	84	34	9
CASE 13	152	96	124	84	33	7
CASE 14	156	96	124	84	35	9
CASE 15	152	98	124	80	33	9

Correlation for before treatment of systolic scores of B.P and anxiety, $r > 0.51$

Correlation for after treatment of systolic scores of B.P and anxiety, $r > 0.53$

Correlation for before treatment of diastolic scores and anxiety, $r > 0.63$

Correlation for after treatment of diastolic scores and anxiety, $r > 0.053$

Correlation coefficient, $r =$

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Inference

Here the correlation seems to be positive between anxiety and hypertension since correlation coefficient has a positive value. Hence anxiety and hypertension are positively related.

7.DISCUSSION

A prospective,experimental study was conducted to assess the efficacy of homoeopathic medicines in lowering the blood pressure level in case of essential hypertension and also to study the correlation between essential hypertension and anxiety using GAS scale in geriatric age group.The study was conducted in patients having essential hypertension selected from IPD,OPD and peripheral centres of Sarada Krishna Homoeopathic Medical college and hospital.

Out of 20 screened patients,15 were recruited as per inclusion criteria and were included in the final analysis.The details of patient were recorded in the standardized case record format of SKHMC.Patients above age group 65 Years were selected.Patient consent was obtained ,and the investigations were done.Then GAS score analysis done to these patients.The cases were followed upto atleast for a period of 6 months.Scoring chart was included for the assessment before and after treatment.

AGE:Out of 15 cases,the number of patients in the age between 66-70 years (86.66%) ,71-75 is1(6.66%) and 76-80 is1(6.66%).Here more patients were in age group 66-70.

SEX:Out of 15 patients in the geriatric age group 8 were males and 7 were females.this coincides with the epidemiology that males are more affected with hypertension as compared to females.

AREA OF DWELLING

Majority of patients belongs to rural area counting about 9 out of 15(60%) 5 (33.3%)from suburban and 1(6.6%) from urban area.This may be due to the proximity of rural areas to SKHMC hospital.Essential hypertension is prevalant in almost all stratas of dwelling.

HTN AND ANXIETY

All the 15 cases with essential hypertension(100%) showed anxiety too.Hence it is concluded that geriatric age is suffering from anxiety in moderate to severe amount.

DWELLING

Majority of cases, that is out of 15, 9 (60%) were from rural areas, 5 (33.3%) were from suburban areas, and 1 from urban areas. This may be due to the proximity of rural areas near SKHMC.

OCCUPATION

Out of 15 cases, majority, i.e., 5 (33.3%) were housewives, 3 (20%) were farmers, 1 (6.66%) coolie, 2 (13.33%) cases were into business group and 4 cases belong to other occupations like retired police officer, accountant, fisherman and rubber tapping.

GAS SCALE SCORES

According to GAS scale assessment, 15 cases presented with moderate to severe anxiety before treatment which got reduced to zero cases in moderate to severe anxiety group after treatment. This shows the efficacy of homoeopathic medicines in treating anxiety.

MIASM- Out of 15 cases, 8 (53.33%) belong to psorosyncotic miasm, 4 cases (26.6%) belong to syphilitic miasm, 1 case (6.66%) belongs to syphilitic and 2 cases belong to psoric miasm. This supports the literature suggesting an underlying anxiety factor which is mainly responsible for the psorosyncotic miasm.

SOCIOECONOMIC STATUS:

In my study, out of 15 cases 10 (66.6%) patients were of middle class, 2 (13.3%) in low socioeconomic level and 3 (20%) were high class. This study has more number of cases from middle class because of preponderance of middle class people surrounding SKHMC.

REMEDY:

In the present study, 13 medicines were used constitutionally based on symptom totality of which natrum mur and sulphur and calc carb were given to each of two

patients followed by causticum, acid nitricum, lycopodium, medorrhinum, rhustox, thuja arsalb, lachesis and pulsatilla. This supports the efficacy of homoeopathic medicines in treating hypertension.

POTENCY:

In the present study, centesimal potency was frequently used in 9 cases and 6 cases with millesimal potency. Data from previous studies suggest that centesimal potencies are most powerful and mildest in action.

CORRELATION WITH ANXIETY AND HYPERTENSION

Almost all patients with hypertension presents with co-morbid anxiety. This supports the research data showing the association of anxiety with essential hypertension.

IMPROVEMENT STATUS

Out of 15 cases, 13 cases (86.6%) showed marked improvement and 2 cases (13.3%) showed moderate improvement. Based on GAS score all patients had a moderate-marked reduction in anxiety level after treatment. Initially, the maximum frequency of 12 cases were in level 32-39 and 3 patients were in level 40-47. After treatment, the anxiety scores are such that 2 in level 0-2, 9 cases are in level 8-15 and 4 in level 16-23. Hence it is proven that homoeopathic medicines are effective in controlling anxiety.

Results obtained from the paired 't' test and statistical analysis are discussed as follows. Among the 15 patients before treatment scoring the critical ratio, t follows a distribution with n-1 degrees to freedom. The 5% level is 2.745 and 1% level is 2.997 for 14 degrees of freedom. Since the calculated values for systolic, diastolic and anxiety levels are 39.29, 19.5 and 30.48 respectively and is greater than tabled value at 5% and 1% level, the test is statistically significant and hence the null hypothesis is rejected.

Therefore, from the study it is evident that the study shows significant reduction in GAS score levels, systolic and diastolic values after giving homoeopathic medicines. Also there exists a positive correlation between anxiety and hypertension as evidenced from the correlation tests. Hence homoeopathic medicines are effective in the management of essential hypertension and also anxiety.

8.LIMITATIONS

- Only very small number of samples used hence generalisation of result and inferences need to be done cautiously.
- Duration of study is too short .
- Control group was not present since the sample size was small.
- In some cases ,necessary information was not available and the study was based on the available data.

9.RECOMMENDATION

- Big sample size with extended time of research would provide better results.
- It will be always scientific if control group would have been kept to verify the effectiveness of treatment.

10.CONCLUSION

The study suggested that the homoeopathic medicines have favourable effect in patients suffering with essential hypertension and reducing the GAS Score. From the observation, it is found that the prevalence of essential hypertension is more in males than females. Majority of patients belonging to geriatric age with HTN has comorbid anxiety. It is more prevalent in middle class people and is more predominant in housewives than any other occupation.. The medicines which are found to be more effective include Rhustoxicodendron, causticum,acid nitricum, Pulsatilla, Sulphur, Natrum Muriaticum, medorrhinum,calcareo carb, etc. Most commonly used potencies are centesimal potencies and this shows satisfactory results too. From this study we can conclude that the homoeopathic medicines are effective in essential hypertension and to reduce the GAS Score level of patients.Also there is correlation between anxiety and essential hypertension as proved by correlation test.

11.SUMMARY

A sample of 15 cases from the geriatric patients who visited Sarada Krishna Homoeopathic Medical college and Hospital OPD and IPD with essential hypertension were randomly selected based on inclusion criteria. Then they are analysed by GAS scale for the level of anxiety. The prescription was based on the symptom similarity and repertorisation was done wherever necessary.

The case details were recorded in the standardised case format of Sarada Krishna Homoeopathic Medical college. Then the cases were analyzed and the totality was erected after which the symptom was evaluated. The cases were repertorised wherever necessary and a remedy was prescribed accordingly. Potency was selected on the basis of homoeopathic principles. Assessment was done in 15 days interval and changes were recorded. Geriatric Anxiety Scale was used to assess the level of anxiety on the basis of symptomatic improvement. After 4-6 months follow-up done and changes in GAS scale and Hypertension was recorded. Paired 't' test was done for the test of significance. Also correlation test was used to prove the relation of anxiety with hypertension.

From this clinical study it is found that Essential Hypertension among Geriatric group can be easily managed with homoeopathic remedies prescribed constitutionally. Also these patients are associated with both anxiety and hypertension and both reduced with the administration of homoeopathic constitutional remedy. Hence there is a correlation between the two parameters.

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APPENDIX-1-GLOSSARY

1	APHORISM	Aphorism literally means a “distinction” or “definition”.
2	POTENCY	By Potency means dilution of energy.It is the dynamic power derived to medicines through the process of potentisation.
3	MIASM	Miasm means impure air.It is the noxious influences causing diseases according to Dr.Samuel Hahnemann
4	CONSTITUTION	The physical make up of the body
5	ESSENTIAL HYPERTENSION	Essential hypertension is defined as one without a cause.
6	GERIATRIC ANXIETY SCALE	The Geriatric Anxiety Scale is a 30-item self report measure designed to assess,screen and quantify the severity of anxiety symptoms
7	ANXIETY	A state of feeling nervous or worried that something bad is going to happen acute or intense or deep.

APPENDIX - II

“Case records are our valuable asset”

SARADA KRISHNA

HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL

KULASEKHARAM, KANYAKUMARI DIST, TAMIL NADU- 629161

CHRONIC CASE RECORD

O.P. No: UNIT : Date:

Name:

Age: Sex: Religion: Nationality:

Name of father/Spouse/Guardian/Son/Daughter:

Marital status:

Occupation:

Family size:

Diet:

Address:

Phone No (Mobile):

FINAL DIAGNOSIS:

Homoeopathic	
Disease	

RESULT	cured	relieved	referred	otherwise	expired
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2. INITIAL PRESENTATION OF ILLNESS

PATIENT'S NARRATION

PATIENT'S NARRATION(In the very expressions used by him/her)	PHYSICIAN'S INTEROGATION (details regarding symptoms narrated)	PHYSICIAN'S OBSERVATION

3.PRESENTING COMPLAINTS

LOCATION(Tissues,organ s, systems,extensions& duration,direction and frequency)	SENSATION &PATHOLOG Y	MODALITY (<,>)&A/F(=)	CONCOMOITANT S IF AN Y

4.HISTORY OF PRESENTING ILLNESS:

5.HISTORY OF PREVIOUS ILLNESS

NO	Age/year	Illness,trauma,fright,burns,drug allergy(ies),operation(s) ,exposure(s),innoculation ,vaccination(s),serum,steroids, hormone therapy,antibiotics, analgesics,etc.	Treatment adopted	outcome

HISTORY OF FAMILY ILLNESS

7.PERSONAL HISTORY

A.LIFE SITUATION

Place of birth:

Caste:

Socio- economic status:

Nutritional status:

Dwelling:

Customs:

Nature of Work:

Political Status:

Religion:

Educational status :

Marital status:

Year of Marriage:

Family status:

Father:; Mother: Siblings: Male: Children:

B. HABITS & HOBBIES

Food:

Addictions:

Sleep: Artistic:

Games/Sports:

C. DOMESTIC RELATIONS

With family members:

With other relatives:

With Neighbours/friends/colleagues:

D. SEXUAL RELATIONS:

Pre-Marital:

Marital:

Extra Marital:

Others:

8. LIFE SPACE INVESTIGATION

9. MENSTRUAL HISTORY:

A. Menses

L.M.P:

Amenorrhoea-

Primary/Secondary

Cycle/regularity &its duration	Duration of mensus	FLOW

CONCOMITANTS

BEFORE	AT START OF	DURING	AFTER

B. Previous History: Changes in Menstrual Cycle

Menarche: Early/Late

Early Years (first 3-4 Yrs)

Before Marriage:

FMP:

After Pregnancy(ies)

Recent

Complaints related to Menarche

After Marriage

C. Climacteric:

Symptoms associated

Premenopause	With menopause	Post menopause

Abnormal vaginal discharges(leucorrhoea/lochia)

Type	Quantity	Onset duration	Colour Odour	stains acidity	relations with menses	modalities	accompaniments	Obvious reason if any

OBSTETRICAL HISTORY

Previous pregnancies including abortion

Gravida	Para	abortion	death	live

B. Contraceptive method(s) adopted

1. Temporary (used/in use/duration)

2. Permanent (changes of contraceptive method(s) and if so reason, any complaints from use)

C. Present Pregnancy: L.M.P

Date of Quickening

E.D.C

H/O Morning sickness

Other Complaints

11. GENERAL SYMPTOMS:

A. PHYSICALS

I. FUNCTIONAL

1. Appetite :

2. Thirst :

3.Sleep :

4. Dreams

II. ELIMINATIONS

1. Stool :

2. Urine :

3. Sweat :

4. Breath: 70

5. Discharges:

6. Abnormal Secretions & Excretions:

III . REACTIONS TO

REACTIONS TO	Aversions	Desire	Intolerance/ Sensitive to	Aggravation	Amelioration
Time					
Thermal					
Season					
Meteorological					
Moon Phase					
Places					
Air/Fanning					
Clothing/Covering					
Bathing/Washing					
Food/Drinks					
Undigested Food					
Touch/Pressure					
Posture					
Motion					
sleep					
sex					
Special senses					
Eliminations					
Menses					

IV. CONSTITUTIONAL

Physical Makeup	Temperament	Thermal	Side affinity	Sensation/tendencies

B. MENTAL GENERAL

1. Will & Emotions including motivations(Love, hate, anger, sadness, fear. fright, anxiety, suspicious, cause, modalities, state, aversion and cravings (excluding food & drinks,) etc.

2. Understanding and Intellect (perception, thinking, consciousness, decision, confidence, speech, motivation, cause, mental state)

3. Memory (Effect on Behaviour & functions)

12. PHYSICAL EXAMINATION

A) GENERAL •

Conscious :

- General appearance:
- General built and nutrition:
- Height
 - Weight:

BMI:

- Anaemia:
- Jaundice:
- Jaundice:

- Clubbing:
- Cyanosis:
- Oedema :
- Nails:
- Gait:
- Lymphadenopathy:
- Pulse rate: Resp rate:
- B.P:
- Temp:
- Others:

B.P:

- Temp:
- Others:

B.SYSTEMIC EXAMINATION

1. Respiratory system:
2. Cardiovascular system:
3. Gastro Intestinal system:
4. Urogenital system:
5. Skin and glands :
6. Musculoskeletal system
7. Central Nervous system:
8. Endocrine:
9. Eye and ENT:
10. Others: 73

C.REGIONALS

13. LABORATORY FINDINGS

14. DIAGNOSIS ☐

Provisional Diagnosis :

Differential Diagnosis: ☐

Final Diagnosis (Disease):

15 .DATA PROCESSING

A. ANALYSIS OF CASE

COMMON	UNCOMMON

B. EVALUATION OF SYMPTOMS/TOTALITY OF SYMPTOMS

C. MIASMATIC ANALYSIS:

	PSORA	SYCOTIC	SYPHILIS	PSEUDO PSORA/TUBERCULAR
Family history				
Past history				
Mind				
Body				
MIASMATIC DIAGNOSIS				

Miasmatic Diagnosis:

D. TOTALITY OF SYMPTOMS

E. HOMOEOPATHIC DIAGNOSIS 75

16 .SELECTION OF MEDICINE

A. Non Repertorial Approach

B. Repertorial Approach

a) Repertorial Totality: (Selection of appropriate Repertory, Selection of symptoms for repertorisation, conversion of symptoms into corresponding rubrics for repertorisation)

No	Symptoms	Rubrics	Explanation	Page no.

b) Repertorial result:

Medicine						

c) PDF if any

d) Analysis of Repertorial Result

17. SELECTION OF POTENCY AND DOSE

A. Potency

B. Dose 76

18. PRESCRIPTION

19. GENERAL MANAGEMENT INCLUDING AUXILLARY MEASURES

A. General/Surgical/Accessory:

B. Restrictions (Diet, Regimen etc.):

Disease	Medicinal

20. PROGRESS & FOLLOW UP

Date	Symptom(s) changes	Inference	Prescription

APPENDIX – III

SCORING CHART - GAS SCALE

Symptoms	Not at all (0)	Sometim -es (1)	Most of the time (2)	All of the time (3)
1. 1. My heart raced or beat strongly.				
2. My breath was short				
3. I had an upset stomach.				
4. I felt like things were not real or like I was outside of myself				
5. I felt like I was losing control.				
6. I was afraid of being judged by others.				
7. I was afraid of being humiliated or embarrassed				
8. I had difficulty falling asleep.				
9. I had difficulty staying asleep.				
10. I was irritable.				
11. I had outbursts of anger				
12. I had difficulty concentrating.				
13. I was easily startled or upset.				
14. I was less interested in doing something I typically enjoy.				
15. I felt detached or isolated from others.				
16. I felt like I was in a daze. 16. I felt like I was in a daze.				
17. I had a hard time sitting still				
18. I worried too much.				
19. I could not control my worry.				
20. I felt restless, keyed up, or on edge				
21. I felt tired				
22. My muscles were tense.				

23. I had back pain, neck pain, or muscle cramps.				
24. I felt like I had no control over my life.				
25. I felt like something terrible was going to happen to me				
26. I was concerned about my finances.				
27. I was concerned about my health.				
28. I was concerned about my children.				
29. I was afraid of dying.				
30. I was afraid of becoming a burden to my family or children.				

Items 1 through 25 are scorable items. Each item ranges from 0 to 3. Each item loads on only one scale. Items 26 through 30 are used to help clinicians identify areas of concern for the respondent. They are not used to calculate the total score of the GAS

score ranges

- from 0 (low **anxiety**) to 63 (high **anxiety**).
- 0–7---- **normal anxiety**,
- 8–15--- **mild–moderate anxiety**,
- 16–25--- **moderate–severe anxiety**,
- 26–63-- **severe anxiety**

APPENDIX- IV

FORM-4:CONSENT FORM

PART 1 of 2

INFORMATION FOR PARTICIPANTS OF THE STUDY

I, Dr.Aswathy .K.Sasi, studying MD (Hom) in Practice of Medicine in Sarada Krishna Homoeopathic Medical College And Hospital Kulasekharam, Kanyakumari District, Tamilnadu have to submit a dissertation as a part of the course under Dr.M.G.R Medical University. The dissertation “A CONSTITUTIONAL APPROACH OF TREATMENT OF ESSENTIAL HYPERTENSION IN CORRELATION WITH ANXIETY IN GERIATRIC AGE GROUP” have to be done under the guidance of Dr. N.V. Sugathan, Professor, Dept. of Practice of Medicine, Sarada Krishna Homoeopathic Medical college, Kulasekharam, Kanyakumari district, Tamilnadu. The cases are collected from the OPD/IPD of Sarada Krishna Homoeopathic Medical College and Hospital. The expected duration of your participation is one and half year. The research provides detailed information about the utility of homoeopathic medicines in the reduction of blood pressure and anxiety. Since Homoeopathic Medicines has no side effects, it is not expected to cause any risks. The records will be maintained confidentially. There is no chance of any risk to happen during the research. You will have the freedom to withdraw from the study at any time during the study period. The data collected from you will not be shared for any possible current or future uses of the biological material.

Address of investigator:

Dr. Aswathy.K.Sasi

Dept. of Practice of Medicine

Sarada Krishna Homoeopathic Medical College and Hospital

Kulasekharam, Kanyakumari District, Tamilnadu

Ph. 9497899612

Address of guide

Dr. N.V, SUGATHAN, MD (Hom).Ph.D.

Principal & Professor, Dept. of Practice of Medicine

Sarada Krishna Homoeopathic Medical College and Hospital

Kulasekharam, Kanyakumari District, Tamilnadu

CONSENT FORM PART 2 of 2

PARTICIPANT CONSENT FORM

Participant's name:

Address:

- 1. Title of the project: "A CONSTITUTIONAL APPROACH OF TREATMENT OF ESSENTIAL HYPERTENSION IN CORRELATION WITH ANXIETY IN GERIATRIC AGE GROUP"**

The details of the study have been provided to me in writing and explained to me in my own language. I confirm that I have understood the above study and had the opportunity to ask questions. I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without the medical care that will normally be provided by the hospital being affected. I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s). I have been given an information sheet giving details of the study. I fully consent to participate in the above study.

Signature of the Participant:_____ **Date:** _____

Signature of the Witness:_____ **Date:** _____

Signature of the investigator _____ **Date:** _____

APPENDIX -V

Case records are our valuable asset”

SARADA KRISHNA

HOMOEOPATHIC MEDICAL COLLEGE & HOSPITAL

KULASEKHARAM, KANYAKUMARI DIST, TAMIL NADU- 629161

CHRONIC CASE RECORD

O.P. No: 6170/19 UNIT : 111B Date: 28/8/2020

Name: Mrs. Thomasi

Age: 75 Sex: F Religion: christian Nationality: Indian

Name of father/Spouse/Guardian/Son/Daughter: spouse-Mr. Augadehnes

Marital status: married

Occupation: housewife

Family size: nuclear family

Diet: mixed

Address: St. Joseph House, Thiruvattar

Phone No (Mobile): 9489482446

FINAL DIAGNOSIS:

Homoeopathic			SYCO PSORIC DISEASE		
Disease			ESSENTIAL HYPERTENSION		

RESULT	cured	relieved	referred	otherwise	expired
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2. INITIAL PRESENTATION OF ILLNESS

PATIENT'S NARRATION

PATIENT'S NARRATION(In the very expressions used by him/her)	PHYSICIAN'S INTEROGATION (details regarding symptoms narrated)	PHYSICIAN'S OBSERVATION
I have pain knees,vertigo and headache .	Aggravating and ameliorating factors?	Co-operative and mild patient

PRESENTING COMPLAINTS

LOCATION(Tissues,organs, systems,extensions& duration,direction and frequency)	SENSATION &PATHOLOGY	MODALITY (<,>)&A/F(=)	CONCOMITANTS IF ANY
1.Pain both knee joint(2years)extending to both ankle joint	Aching	<walking <ascending and descending stairs	nil
2.Vertigo(since 1 year) Occasionally		<turning to right side	nil
3.Headache (1 year)	Left side	>rest	
4.Burning soles (both)(1week)		<early morning <sun exposure <summer season	

4.HISTORY OF PRESENTING ILLNESS:The patient was apparently normal before 2 years.Then he felt pain in the knee joint joint extending to both ankle joint.She also has complaints of headache and vertigo occassionally since 1 year.Burning of soles started since 1 week.She took no treatment for the complaint.

5.HISTORY OF PREVIOUS ILLNESS

NO	Age/year	Illness,trauma,fright,burns,drug allergy(ies),operation(s),exposure(s),innoculation,vaccination(s),serum,steroids,hormone therapy,antibiotics,analgesics,etc.	Treatment adopted	outcome
1.	2 years before	Haemorrhoids	surgery	

HISTORY OF FAMILY ILLNESS-No relevant history.

7.PERSONAL HISTORY

A.LIFE SITUATION

Place of birth: Thiruvattar

Caste: Christian

Socio- economic status: low

Nutritional status: moderate

Dwelling: Thiruvattar

Customs: nil

Nature of Work:housewife

Political Status:moderate

Religion: christian

Educational status : 5th std

Marital status: married

Year of Marriage:23 yrs

Family status: nuclear

Father:;died Mother: diedSiblings: 3Male:1 female:2 Children: 6(4F+2M)

B. HABITS & HOBBIES

Food:No vegetarian,no addictions

Addictions:nil

Sleep:sound

Artistic: nil

Games/Sports: nil

C. DOMESTIC RELATIONS

With family members:good

With other relatives: good

With Neighbours/friends/colleagues: good

D. SEXUAL RELATIONS:

Pre-Marital: nil Marital: good Extra Marital:nil

Others:

8. LIFE SPACE INVESTIGATION-

9. MENSTRUAL HISTORY:

A. Menses

FMP:15 years L.M.P: 50 years Amenorrhoea-
Primary/Secondary

Cycle/regularity &its duration	Duration of mensus	FLOW

CONCOMITANTS

BEFORE	AT START OF	DURING	AFTER

B. Previous History: Changes in Menstrual Cylce nil

Menarche: Early/Late

Early Years (first 3-4 Yrs)

Before Marriage:

FMP:

After Pregnancy(ies)

Recent

Complaints related to Menarche nil

After Marriage

C. Climacteric: nil

Symptoms associated

Premenopause	With menopause	Post menopause
nil	nil	nil

Abnormal vaginal discharges(leucorrhoea/lochia)

Type	Quantity	Onset duration	Colour odour	stains acidity	relations with menses	modalities	accompaniments	Obvious reason if any

OBSTETRICAL HISTORY

Previous pregnancies including abortion

Gravida	para	abortion	death	live
8	6	2	0	6

B. Contraceptive method(s) adopted nil

1. Temporary (used/in use/duration)nil

2. Permanent (changes of contraceptive method(s) and if so reason, any complaints from use)

C. Present Pregnancy: L.M.P

Date of Quickening

E.D.C

H/O Morning sickness

Other Complaints

11. GENERAL SYMPTOMS:

A. PHYSICALS

I. FUNCTIONAL

1. Appetite : normal

2. Thirst : 1-2 litres/day

3.Sleep :sound

4. Dreams-nil

II. ELIMINATIONS

1. Stool : difficult(pain occasionally)

2. Urine :scanty

3. Sweat : normal

4. Breath: normal

5. Discharges:nil

6. Abnormal Secretions & Excretions: nil

III . REACTIONS TO REACTIONS TO

REACTIONS TO	Aversion s	Desire	Intolerance / Sensitive to	Aggravatio n	Amelioratio n
Time	Aversion	Desire	Intolerance / Sensitive to		
Thermal					
Season					
Meterological					
Moon Phase			Both extremes of climate		
Places					
Air/Fanning					
Clothing/Coverin g		coverin g			
Bathing/Washing					
Food/Drinks		Warm drinks			
Undigested Food					
Touch/Pressure					
Posture					
Motion					
sleep					
sex					

Special senses					
Eliminations					
Mensus					

Constitutional

Physical Makeup	Temperament	Thermal	Side affinity	Sensation/tendencies
			Right	

B. MENTAL GENERAL

1. Will & Emotions including motivations(Love, hate, anger, sadness, fear. fright, anxiety, suspicious, cause, modalities, state, aversion and cravings (excluding food & drinks,) etc.

Worried about husband's health,religious

2.Understanding and Intellect (perception, thinking, consciousness, decision, confidence, speech, motivation, cause, mental state)

Normal

3.Memory (Effect on Behaviour & functions)

Intact

12. PHYSICAL EXAMINATION

A) GENERAL •

Conscious : conscious

• General appearance: good

- General built and nutrition:moderate

- Height 144cm

Weight: 49.6kgm

BMI:20.7kgm/m²

- Anaemia: no pallor

- Jaundice: not icteric

- Clubbing:no clubbing

- Cyanosis: cyanosis absent

- Oedema : oedema not present

- Nails: normal

- Gait: steady

- Lymphadenopathy:no lymphadenopathy

- Pulse rate: 58/minute Resp rate: 17/minute B.P: 180/90 mmhg

- Temp:98.6 F

- Others:normal

B.SYSTEMIC EXAMINATION

1. Respiratory system: normal vesicular breath sound,no added sounds

2. Cardiovascular system: S1S2 heard,no added sounds

3. Gastro Intestinal system:NAD

4. Urogenital system:NAD

5. Skin and glands :NAD

6. Musculoskeletal system

GALS

	Appearance	movement
Gait	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Arms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Legs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Spine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Knee joint examination

Inspection-no scar,no discolouration ,no swelling

Palpation:no crepitus heard

Range of movement:flexion and extension painful

7. Central Nervous system:NAD

8. Endocrine:NAD

9. Eye and ENT: NAD

10. Others: NAD

C.REGIONALS

EYE-dimness of vision

13. LABORATORY FINDINGS

14. DIAGNOSIS

Provisional Diagnosis : Essential hypertension

Differential Diagnosis: Migraine,Osteoarthritis

Final Diagnosis (Disease):Essential hypertension

15 .DATA PROCESSING

A. ANALYSIS OF CASE

COMMON	UNCOMMON
<p>Aching pain knee joint<walking</p> <p>Vertigo</p> <p>Headache<sunexposure</p>	<p>Religious</p> <p>Worried about husband's health</p> <p>Vertigo<turning to right side</p> <p>Burning soles<sunexposure</p> <p>Desire warm drinks</p>

B. EVALUATION OF SYMPTOMS/TOTALITY OF SYMPTOMS

Worry

Religious

Desire warm drinks

Aching pain knee<walking

Ascending and descending

Vertigo <turning to right

Headache<turning to right side

Burning soles<summer

C. MIASMATIC ANALYSIS:

	PSORA	SYCOTIC	SYPHILIS	PSEUDO PSORA/TUBERCULAR
Family history				
Past history		Haemorrhoids		

Mind	worry			
Body	Desire warm drinks Headache<turni ng to right side Vertigo<turning to right side. Pain knee<walking <ascending and descending stairs	Burning soles<summ er		
MIASMATIC DIAGNOSIS	Sycopsoric disease			

D.Totality of symptoms

Worried about husband's health

Desire warm food and drinks

Pain knee<walking,ascending and descending stairs

Burning soles<summer

Headache <sunexposure,turning to right side

Vertigo<urning to right side

E.Homoeopathic diagnosis(Hahnemannian classification)-Sycopsoric disease

16 .SELECTION OF MEDICINE

A. Non Repertorial Approach

B. Repertorial Approach

a) Reprtrorial Totality: (Selection of appropriate Repertory, Selection of symptoms for repertorisation, conversion of symptoms into corresponding rubrics for repertorisation)

Remedy Name	Chel	Sulph	Ars	Calc	Puls	Bry	Graph	Kali-c	Caust	Lyc	Nat-m	Nux-v
<u>Totality</u>	15	15	13	13	12	12	11	11	11	11	11	11
<u>Symptoms Covered</u>	5	5	5	5	5	3	5	5	4	4	4	4
Kingdom												
[Complete] [Mind]Cares, worries, full of: (198)	3	3	4	3	3		3	3	3	3	4	3
[Complete] [Generalities]Food and drinks:Warm:Drinks:Desires: ...	4	3	4	1	3	4	3	1		3		
[Allen] [F]Foot:Sole:Burning: (42)	1	2	1	2	2		1	1	1		1	1
[Complete] [Head]Pain, headache:Morning:Agg.: (533)	3	4	3	4	3	4	3	3	4	4	4	4
[Knerr] [Sensorium]Vertigo:Head:Turning, when: (2)												
[Complete] [Extremities]Pain:Knees:Walking:While: (174)	4	3	1	3	1	4	1	3	3	1	2	3

b) Repertorial result:

Medicine	chelidonium	sulphur	Ars alb	Calc carb	pulsatilla	bryonia
	15/5	15/5	13/5	13/5	12/5	12/3

c) PDF if any -NIL

d) Analysis of Repertorial Result

17. SELECTION OF POTENCY AND DOSE

A. Potency-according to the susceptibility of patient

B. Dose -based on homoeopathic principles

18. PRESCRIPTION

First prescription:

Rx:

-CALC CARB 0/3/1 dose

-SAC LAC/6D HS

-B PILLS 3*TDS

19. GENERAL MANAGEMENT INCLUDING AUXILLARY MEASURES

A. General/Surgical/Accessory

Drink plenty of water

Take adequate rest

B. Restrictions (Diet, Regimen etc.):

Disease	Medicinal
Avoid increased salt intake	Avoid coffee and other stimulants.

OBSERVATION BY GAS SCALE-SCORE 34

20. PROGRESS & FOLLOW UP

Date	Symptom(s) changes	Inference	Prescription
25/11/2020	Aching pain knee better		RX 1.calc carb 0/3/1d
	Headache persist		2.sac lac/6d hs
	Burning soles persist		3.bpills 3-3-3 2 weeks
	Vertigo slightly better		
3/12/2020	B.P-154/96mmhg GAS SCORE-42		
	Aching pain knee better		RX 1.calc carb 0/3/1d
	Headache better		2.sac lac/6d hs
	Burning soles persist		3.bpills 3-3-3 2 weeks
	Vertigo slightly better		
15/12/2020	B.P-150/90 mmhg		RX 1.calc carb 0/3/1d
	Aching pain knee better		2.sac lac/6d hs
	Headache persist		3.bpills 3-3-3 2 weeks
	Burning soles persist		
	Vertigo slightly better		
29/12/2020	B.P-150/86mmhg		RX 1.calc carb 0/3/1d

8/1/21	<p>Aching pain knee better</p> <p>Headache persist</p> <p>Burning soles persist</p> <p>Vertigo slightly better</p> <p>B.P-140/80mmhg</p>		<p>2.sac lac/6d hs</p> <p>3.bpills 3-3-3</p> <p>2 weeks</p> <p>RX</p> <p>1.sac lac /7d(hs)</p> <p>2.B-Disc 1-0-1</p> <p>3.bpills 3-3-3</p> <p>2 weeks</p>
16/1/21	<p>Aching pain knee better</p> <p>Headache persist</p> <p>Burning soles better</p> <p>Vertigo slightly better</p> <p>B.P-130/86mmhg</p>		<p>RX</p> <p>1.calc carb 0/3/1d</p> <p>2.sac lac/6d hs</p> <p>3.bpills 3-3-3</p> <p>2 weeks</p>
29/1/21	<p>Aching pain knee better</p> <p>Headache persist</p> <p>Burning soles better</p> <p>Vertigo slightly better</p> <p>B.P-130/88mmhg</p> <p>Aching pain knee better</p> <p>Headache persist</p>		<p>RX</p> <p>1.calc carb0/3/1d</p> <p>2.sac lac/6d hs</p> <p>3.bpills 3-3-3</p> <p>2 weeks</p>

	Burning soles better Vertigo better B.P-126/82 mmhg GAS SCORE-16		
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MASTER CHART

SL.NO	1	2	3	4	5
PATIENT DETAILS	11728/19 70/M High class Business	7509/19 66/F Middle class Housewife	4726/20 68/F Middle class Housewife	2294/19 67/F Low class Fisherman	945/21 68/F Middle class Housewife
DWELLINGS	Rural	Rural	Rural	Rural	Rural
PRESENTING COMPLAINTS	Pain shoulder extending to fingers<motion. weakness of left arm and leg	Tiredness of whole body Pain from knee to foot<walking	Vertigo <walking >rest	Vertigo<turning head >rest	Pain back extending to both lower extremities Numbness of legs<walking>lying down
FAMILY HISTORY	Asthma-brother	-----	-----	---	DM and HTN-- mother,father,brother
PAST HISTORY	Chickenpox,her nia		Hysterectomy	jaundice	---

TRIGERRING FACTORS			-----	---		---
ASSOCIATED COMPLAINTS		Heaviness of hands	-----	Abdominal pain and distension>night	Tiredness>rest	
ANXIETY SCORE	BEFORE	32	33	36	40	39
	AFTER	6	9	8	16	16
HTN VALUES	BEFORE	154/96	156/96	156/96	156/98	156/96
	AFTER	120/84	124/84	120/84	130/80	130/84
MEDICINE	REMEDY	CAUSTICUM	LYCOPodium	ACID NITRICUM	NATRUM MUR	RHUSTOX
	POTENCY	200	200	0/6	0/6	200
REMARKS		Marked improveme	Marked improvement	Marked improvement	Moderate improvement	Moderate improvement

SL.NO	6	7	8	9	10
PATIENT DETAILS	9518/19 70/F Low class Farmer	6170/19 75/F Low class housewife	864/19 67/F Middle class housewife	8672/16 66/M Middle class Farmer	1509/19 66/M High class Farmer
DWELLINGS	Rural	Suburban	Suburban	Rural	Urban
PRESENTING COMPLAINTS	Vertigo<raising from bedheadache <morning Aching pain both lower and upper extremities<stand ing	Vertigo<turning to right side>rest Headache left side<early morning Knee pain<walking	Vertigo<walking	Headache <turning head	Aching pain over knee joint<flexion<ascending<morn ing Pain lumbar region<excertion
FAMILY HISTORY	-----	---	----	----	HTN-sister Rheumatism -sister
PAST HISTORY	Pancreatitis	Haemorrhoids	----	Filariasis,Chikungunya	Chickenpox
TRIGERRING FACTOR			---		

ASSOCIATED COMPLAINTS		weakness	-----	Itching eyes,nose ears sneezing	Heartburn >belching	
ANXIETY SCORE	BEFORE	39	42	35	35	33
	AFTER	14	16	10	16	10
HTN VALUES	BEFORE	156/96	154/98	158/96	154/96	154/96
	AFTER	124/84	124/80	124/84	124/84	124/80
MEDICINE	REMED Y	MEDORRHINU M	CALC CARB	SULPHUR	THUJA	CALC CARB
	POTENCY	1M	0/3	200	0/1	200
REMARKS		Marked improvement	Marked improvement	Marked improvement	Markedly improvement	Marked improvement

SL.NO	11	12	13	14	15
PATIENT DETAILS	1016/20 68/M Middle class Rubber tapping	6201/20 66/M High class Accountant	11529/19 67/M Middle class Retired police officer	7838/19 78/M Middle class Business	1936/19 68/M Middle class coolie
DWELLINGS	Rural	Suburban	Rural	Suburban	Suburban
PRESENTING COMPLAINTS	Pain lumbar region and pain in both right and left shoulders<ex certion>lying down	Vertigo with heaviness of head and tendency to fall forward	Headache <exertion <mental stress	Pain both upper and lower extremities<exertion >rest	Numbness of left hand<lifting weights
FAMILY HISTORY	-----	Poliomyelitis - mother	DM-father,sister	----	
PAST HISTORY	-----	Tonsillitis Chickenpox	Tuberculosis ,chickenpox	GERD	Chickungunya
TRIGERRING			---		

ASSOCIATED COMPLAINTS		Tiredness ,cough with whitish exoectoration	Dry,scaly, itchy skin<scratching	weakness	Vertigo Cough with whitish_expectoration	Tiredness
ANXIETY SCORE	BEFORE	44	34	33	35	33
	AFTER	10	9	7	9	9
HTN VALUES	BEFORE	158/98	154/96	152/96	156/96	152/98
	AFTER	130/80	126/84	124/84	124/84	124/80
MEDICINE	REMEDY	NATRUMMUR	ARS ALB	LACHESIS	PULSATILLA	SULPHUR
	POTENCY	200	0/3	0/1	200	200
REMARKS		Marked improvement	Marked improvement	Marked improvement	Markedimprovement	Markedimprovement.

