

A Clinical Study on Phosphorus Through the Cases of Generalized Anxiety Disorder

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ABSTRACT

Fear, worry, and a persistent feeling of overload are symptoms of generalized anxiety disorder (GAD). Excessive, frequent, and illogical concern over everyday problems like responsibilities, health, or work obligations is what defines it. Persistent, uncontrollable concern is the hallmark of generalized anxiety disorder (GAD). Medical doctors identify generalized anxiety disorder (GAD) when you worry for longer than six months. According to the Lancet, the prevalence of anxiety disorders has increased globally by 13.8% to 25.6%. Homeopathy is necessary when such anxiety disrupts the vital energy and causes mental illnesses.

Objectives: To study the quality of life of patients treated with homoeopathic medicine Phosphorous and to study the efficacy of Homoeopathic medicine Phosphorous in the treatment of patients of generalized anxiety disorder.

Study Design: The experimental study is made as per the “single blind (placebo) controlled clinical trial” method.

Methods: 100 cases of generalized anxiety disorder were randomly allocated to the two treatment groups. In Group A (n=50 cases) homoeopathic medicine predefined medicine Phosphorous was selected on the basis of their totality and given in Centesimal potencies. In Group B (n=50 cases) homoeopathic predefined Placebo was selected.

Intervention: A total 100 (50 = Phosphorous centesimal potency, and 50 = Placebo) cases, after screening, were randomized to receive Phosphorous centesimal for 90 days.

Outcome Measurement: Assessment and reassessment after 3 months was done.

Results: Homoeopathic medicine Phosphorus has shown definitive importance in management of generalized anxiety disorder.

In group A (Phosphorous), 20 cases showed Improvement while 15 cases showed mild improvement, 5 cases showed no improvement and 10 cases dropped out. In group B (Placebo), 0 cases showed Improvement, 10 cases showed mild improvement, 30 cases showed no improvement followed by 10 cases 10 cases dropped out.

A Chi- square test was conducted. Result showed that Alternative Hypothesis (The significant improvement in the treatment of cases of general anxiety disorder is because of Phosphorous as per homoeopathic methods) was accepted.

Conclusion: Homoeopathic medicine Phosphorus has shown definitive importance in management of generalized anxiety disorder

Keywords: Generalized anxiety disorder, ICD, Nervousness, Phosphorus, Psychological disorder, Fear, Restlessness, Fidgety, Mental diseases, Patient, Homoeopathy.

INTRODUCTION

Generalized anxiety disorder (GAD) is a mental health condition that causes fear, concern, and a continual feeling of being overwhelmed. It is distinguished by excessive, frequent, and irrational anxiety for little concerns such as job responsibilities, health, or duties. Generalized anxiety disorder (GAD) is defined by persistent worry that is out of one's control. GAD is diagnosed by healthcare practitioners after you have been worrying on most days for at least six months. Worrying may develop into a habit over time. Personal health, finances, family, and work are some of the most typical concerns. Everyone worries about these issues from time to time. However, continuously expecting the worse can make it difficult to maintain a normal lifestyle. GAD normally develops gradually, during childhood or adolescence. However, it can also begin during adulthood. It is more common in those who are assigned female at birth and often runs in families.

AIMS & OBJECTIVES

- To study the quality of life of patients treated with homoeopathic medicine Phosphorous in the treatment of generalized anxiety disorder.
- To study the efficacy of Homoeopathic medicine Phosphorous in the treatment of patients of generalized anxiety disorder.

MATERIAL AND METHODS:

1. Study design: The experimental study is made as per the “single blind (placebo) controlled clinical trial” method.

2. Study Population:

- o Study site: Sri Ganganagar Homoeopathic Medical College and Research Institute, Tania University, Sri Ganganagar, Rajasthan, India.
- o Study Setting:
 - Indoor Patient Department (I.P.D.)
 - Outdoor Patient Department (O.P.D.)
- o Ethical clearance requirement:

It was obtained from Ethical committee of the Sri Ganganagar Homoeopathic Medical College and Research Institute, Tania University, Sri Ganganagar, Rajasthan, India.

- o Inclusion criteria:
 - Diagnosis of Mental, Behavioral and Neuro-developmental disorders as coded in ICD 10 (F01 – F99) version 2025
 - Study on Generalized anxiety disorder between the age group of 20 to 60 years male and female.

o Exclusion criteria:

Patient complicated with other illness will not be included in this study.

o Sample size calculation:

Minimum 100 patients (both male and female) were selected starting from 20 to 60 years of the age. Considering the inclusion criteria mentioned above.

o Procedure:

STEP I: Extensive search & study of different books and journals with special reference to Synthesis Repertory.

STEP II: Gather exhaustive information from the Internet according to availability.

STEP III: Selection of 100 patients (both male and female) suffering from generalized anxiety disorder.

STEP IV: Proper case taking was done according to the standard case taking performa.

STEP V: Relevant investigations were done as per need.

STEP VI: Inclusion and Exclusion Criteria was fulfilled.

STEP VII: Analysis, Evaluation and Repertorisation of the Totality of Symptoms using Synthesis Repertory were done taking help of Computer aided (Digital) Repertory.

STEP VIII: Medicine was selected i.e. Phosphorus with consultation of materia medica and senior teachers.

STEP IX: Potency, dose and repetition was strictly arranged following strict Homoeopathic Principle.

STEP X: Follow up of the case at regular interval.

STEP XI: Statistical analysis of the result by using standard statistical methods was done

INTERVENTIONS:

Group A: 50 Cases – Phosphorus with centesimal potency

Potency: Medicine was prescribed in 30c, 200c as per the prescribing totality, susceptibility of patient and intensity of symptoms.

Dosage and Repetition: As per the Hahnemannian guidelines in 5th edition of Organon of Medicine. Change of medicine and/or dosage was on Homoeopathic principles after observing change triggered after first prescription (status quo/ improvement/ deterioration).

Group B: - 50 cases - Placebo was prescribed.

Dispensing of intervention: Medicines were dispensed in globule form (size 60) from dispensing unit.

MEDICINAL CRITERIA

As per the 10th revision of the International Statistical Classification of Disease (ICD-10) allows diagnosis of GAD as follows:

I. A minimum of six months during which there is noticeable stress, anxiety, and apprehension regarding commonplace occurrences and issues.

II. There must be a minimum of four symptoms from the list below, at least one of which must be from items (1) through (4).

Autonomic arousal symptoms

(1) Palpitations or excessive increased heart rate.

(2) Sweating.

(3) Trembling or shaking.

(4) Dry mouth (not due to medication or dehydration).

Symptoms concerning chest and abdomen

(5) Difficulty breathing.

(6) Feeling of choking.

(7) Chest pain or discomfort.

(8) Nausea or abdominal distress (e.g., churning in the stomach).

Symptoms concerning brain and mind

(9) Feeling dizzy, unsteady, faint or light-headed.

(10) Feelings that objects are unreal (derealisation), or that one's self is distant or "not really here" (depersonalization).

(11) Fear of losing control, going crazy, or passing out.

(12) Fear of dying.

General symptoms

(13) Hot flashes or cold chills.

(14) Numbness or tingling sensations.

Symptoms of tension

(15) Muscle tension or aches and pains.

(16) Restlessness and inability to relax.

(17) Feeling tense, nervous, or anxious.

(18) A sensation of a lump in the throat or difficulty with swallowing.

Other non-specific symptoms

(19) Exaggerated reaction to small shocks or being taken aback.

(20) Anxiety or concern can make it difficult to focus or cause the mind to go blank.

(21) Persistent irritability.

(22) Difficulty getting to sleep because of worrying.

III. The disorder does not meet the criteria for panic disorder (F41.0), phobic anxiety disorders (F40.-), obsessive-compulsive disorder (F42.-) or hypochondriacal disorder (F45.2).

IV. The most widely used exclusion criteria are: not caused by a physical condition like hyperthyroidism, an organic mental problem (F0), or a disorder connected to psychoactive substances (F1), including excessive use of amphetamine-like substances or benzodiazepine withdrawal.

CONSENT & CONFIDENTIALITY

1) Patient Information Sheet: - was given to each & every patient where they were sensitized about the study.

2) Consent form: - Informed consent was obtained from every recruited patient. Including adequacy of the information being provided to the subjects and Confidentiality of identity was maintained.

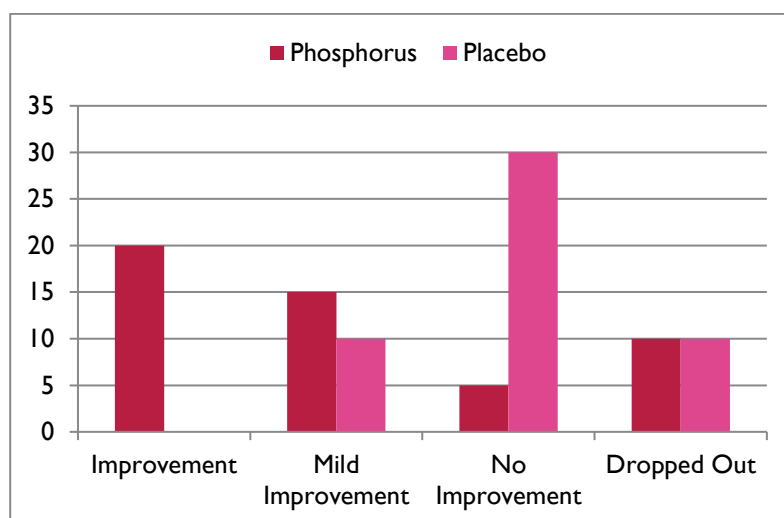
3) All the evaluation forms, reports and other records related to the study were kept confidential.

ETHICAL CLEARANCE:

Yes, ethical has verified the methodology.

OBSERVATION AND RESULTS

SL. NO	TREATMENT RESULT	NO OF CASES	PERCENT AGE
1.	IMPROVEMENT	20	20%
2.	MILD IMPROVEMENT	25	25%
3.	NO IMPROVEMENT	35	35%
4.	DROPPED OUT	20	20%
TOTAL		100	100%



In my study, out of total 100 cases (100 %), for Phosphorus 20 cases (20%) were showed marked improvement while for Placebo 0 cases (0%) was showed marked improvement; for Phosphorus 15 cases (15%) were showed mild improvement while for Placebo 10 cases (10%) were showed mild improvement; for Phosphorus 5 cases (5%) were showed no improvement while for Placebo 30 cases (30%) were showed no improvement and for Phosphorus 10 cases (10%) were dropped out while for Placebo 10 cases (10%) were dropped out.

STATISTICAL ANALYSIS OF THE DATA

Chi square test was performed to test the efficacy of homoeopathic medicines in the treatment of generalized anxiety disorder. Among the four categories of assessment criteria i.e. marked improvement and mild improvement were taken as positive response or effective and no improvement as well as dropped out was considered as negative response.

H0. Null Hypothesis: - The improvement in cases of generalized anxiety disorder is not because of homoeopathic medicine but it is due to sampling variation.

H1. Alternative Hypothesis: - The significant improvement in the treatment of cases of general anxiety disorder is because of Phosphorous as per homoeopathic methods.

CHI-SQUARE TEST:-

	CURED (MARKED IMPROVEMENT & IMPROVEMENT)	NOT CURED (NO IMPROVEMENT & DROPPED OUT)	TOTAL
EXPERIMENTAL CASES (MEDICINE)	O 1=35 E1=22.5	O 2 = 15 E2= 27.5	50 CT
CONTROL CASES (PLACEBO)	O 3 =10 E3= 22.5	O 4 = 40 E4=27.5	50 CT
TOTAL	45 RT	55 RT	100 GT

O1, or O2, or O3, or O4 mean- Observed value

E1, or E2, or E3, or E4 mean- Expected value

RT mean - Raw total

CT mean - Column total

GT mean - Grand total

DEGREE OF FREEDOM (DF)

$DF = (R-1)(C-1)$

Total calculated value of Row (R) = 2-1=1

Total calculated value Column(C) = 2-1=1

$DF = 1 \times 1 = 1$

PROBABILITY OF OUTCOME = $1/1 = 1$

EXPECTED VALUE(E) =

$E = (\text{Column or vertical total} \times \text{Row or horizontal total}) / \text{Grand total}$

$E1 = (50 \times 45) / 100 = 22.5$

$$E2 = (50 \times 55) / 100 = 27.5$$

$$E3 = (50 \times 45) / 100 = 22.5$$

$$E4 = (50 \times 55) / 100 = 27.5$$

$$\text{Total calculation of } E1 + E2 + E3 + E4 = 100$$

CALCULATION=

$$\chi^2 = \sum (O - E)^2 / E$$

$$\sum (O1 - E1)^2 / E1 + (O2 - E2)^2 / E2 + (O3 - E3)^2 / E3 + (O4 - E4)^2 / E4$$

$$\sum (35 - 22.5)^2 / 22.5 + (15 - 27.5)^2 / 27.5 + (10 - 22.5)^2 / 22.5 + (40 - 27.5)^2 / 27.5$$

$$\sum (6.9444 + 5.6818 + 6.9444 + 5.6818)$$

$$\text{CHI SQUARE} = 25.2524$$

Value of χ^2 from Table for DF = 1 is 3.84

CRITICAL VALUES												
	p value											
DF	0.25	0.20	0.15	0.10	0.05	0.025	0.02	0.01	0.005	0.0025	0.001	0.0005
1	1.32	1.64	2.07	2.71	3.84	5.02	5.41	6.63	7.88	9.14	10.83	12.12
2	2.77	3.22	3.79	4.61	5.99	7.38	7.82	9.21	10.60	11.98	13.82	15.20
3	4.11	4.64	5.32	6.25	7.81	9.35	9.84	11.34	12.84	14.32	16.27	17.73
4	5.39	5.59	6.74	7.78	9.49	11.14	11.67	13.23	14.86	16.42	18.47	20.00
5	6.63	7.29	8.12	9.24	11.07	12.83	13.33	15.09	16.75	18.39	20.51	22.11
6	7.84	8.56	9.45	10.64	12.53	14.45	15.03	16.81	18.55	20.25	22.46	24.10
7	9.04	9.80	10.75	12.02	14.07	16.01	16.62	18.48	20.28	22.04	24.32	26.02

Thus with DF 1 and critical value 0.05 comes out as 3.84, but calculated value is 25.2524 which is more than 3.84. Thus –

- NH is rejected.
- AH is accepted.

ALTERNATIVE HYPOTHESIS-

H1. The significant improvement in the treatment of cases of general anxiety disorder is because of Phosphorous as per homeopathic methods.

DISCUSSION & CONCLUSION

Amazing outcomes can be achieved with a medicine, healthy diet, routine, rest, and meditation. If left unattended generalized anxiety can raise your risk of major health issues and other difficulties. These consequences can be avoided by proper treatment and management with medication, dietary modifications and medication. Numerous clinical, therapeutic, and epidemiological findings have been drawn from the study. Numerous epidemiological, clinical, and therapeutic observations have been made on 100 patients, including their types, manifestations, complications, related disorders, etc. Phosphorus, a homeopathic medication, was prescribed following thorough case processing and intake. Clinical practitioners will benefit from this study's findings, which identify homeopathic medication in various potencies as an effective therapy strategy.

Following this investigation, a single blind (placebo) controlled clinical trial of phosphorus with a bigger sample size and longer study duration is advised..

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