



“TO STUDY THE EFFICACY OF FUCUS VESICULOSUS, PHYTOLACCA BERRY, CALOTROPIS GIGANTEA MOTHER TINCTURE IN MANAGEMENT OF OBESITY WITH SPECIAL EMPHASIS ON WEIGHT REDUCTION”

Submitted by

DR. RIDDHI J. MAKWANA

Under the guidance and supervision of

DR. BANKIM PATEL M.D. (Hom.)

Department of Materia Medica

Anand Homoeopathic Medical College & Research Institute

(Dept of P.G.), Anand (Gujarat).

2017-2020

BACKGROUND

ABSTRACT

In this ever-changing era of competition and stress we are losing harmony with nature and our surrounding environment. Life style and endocrine disorders are on the surge and to a certain extent we may be responsible for them. Many risk factors are now identified, most common being related to lifestyle.

There are lots of treatment options and remedies available in the market for obesity but almost all of them are associated with serious side effects and toxicity except homoeopathy.

Homoeopathy offers a safe, long lasting and holistic solution, the logic being to correct the metabolic imbalances or the underlying physical or mental disorders that could be triggering the weight gain. Homoeopathic medicines comprise natural elements in minimum doses and therefore have absolutely no side effects. Also they act as fat burners by speeding up the metabolic rate. At the same time, the patient is never at risk of experiencing fatigue due to the loss of even the physiological fat from the muscles.

METHODS

The study includes two ways to know the effectiveness of remedy for weight reduction in obesity. One is the formation of remedy profile and second is placebo control trial. Information of remedy profile, medicines are studied from different books of Materia medica and symptoms which are present in two or more books are included for remedy profile. In placebo control trial, there are two groups- treatment group and placebo group. Treatment group includes anyone of three medicines along with dietary advices as well as exercises. Placebo group includes only placebo and dietary advices as well as exercises.

RESULTS

In the present study, medicinal cases out of 30, 14 cases (46.67%) shown significant improvement, 7 cases (23.33%) shown moderate improvement, 4 cases (13.33%) shown mild improvement, 5 cases (16.67%) shown status quo. However, in placebo control group, out of 30 cases there were 7 cases (23.33%) shown significant improvement, 7 cases (23.33%) shown moderate improvement, 7 Cases (23.33%) shown mild improvement, 9 cases (30%) shown status quo.

CONCLUSION

Fucus Vesiculosus, Phytolacca Berry and Calotropis Gigantea used in cases of obesity then the placebo treatment along with dietary advices and exercises.

KEYWORDS

Obesity, mother tincture, placebo, diet & exercises

INTRODUCTION

Obesity represents a rapidly growing threat to the health of population in an increasing number of countries. Indeed, these are now so common that they are replacing more traditional problems such as under nutrition and infectious diseases as the most significant causes of ill health. The co-morbidities of obesity include coronary heart disease, hypertension, stroke, and certain types of cancers, NIDDM, gallbladder disease, dyslipidemia, osteoarthritis, gout, and pulmonary diseases including sleep apnea.

The fundamental cause of the obesity is sedentary life style, high fat and energy dense diets; both resulting from changes taking place in society and the behavior patterns of the communities. As the worldwide epidemic of obesity known as Globesity spreads, Patients in every socioeconomic group in all countries are becoming obese. For industrialized countries, it has been suggested that such increase in body weight have been caused primarily by reduced levels of physical activity, rather than by changes in food intake or by other factors.

However, it has been estimated to affect 20 to 40 percent of the adults and 10 to 20 percent of adolescents in developed countries. The causes are so scary that it is the root cause for further illnesses.

Causes of obesity are Genetic / Familial, Hypothyroidism, Cushing syndrome, Hyperinsulinism, Pseudo-hypo parathyroidism, Prader Willi syndrome, decreased activity, increased calorie intake.

Obesity is defined as an accumulation of body fat more than 22% of the total body weight for men and more than 30% of total body weight for women. It is often expressed in terms of body mass index (BMI). BMI is calculated by dividing a person's weight in kilograms by the square of height in meters. A BMI above 32 has been associated with a doubled mortality rate among women over a 16-year period.

Successful management of obesity includes Screening and evaluation of obese person and Diet with exercises.

Homoeopathy is one of the most popular holistic systems of medicine. Homoeopathic treatment focuses on the patient as a person, as well as his pathological condition. The aim of homoeopathy is not only to treat obesity but to address its underlying cause. A holistic approach considering the lifestyle, personal habits, inclusion of nutrients and diet, etc. along with homoeopathic treatment helps in overcoming over weight and obesity of individuals.

Homoeopathic remedies are made from sources like plants extracts, herbs and other natural substances that don't have any side effects on body unlike the conventional weight loss pill or treatment. Unlike conventional medications restricts the absorption of nutrients or induce a feeling of fullness, homoeopathic drugs treat the symptoms that cause weight gain.

Homoeopathy attempts to correct digestive disorder, improve metabolism and help in easy elimination-the 3 main prerequisites for reducing weight. As far as therapeutic medication is concerned, several remedies are available to treat obesity and overweight.

Pathology specific prescription often prescribed in mother tincture or low potencies to act on cellular level to achieve functional normalcy on the basis of symptoms similarity. Mother tinctures are fast acting and safe, thus patient will not have to undergo suffering for long periods and they remain effective for a long time.

There are drugs available in the century old literatures to modern studies to manage obesity but some lesser proved drugs have found to be successful by showing a good result in treatment of obesity for weight reduction. The medicines are Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea.

AIM AND OBJECTIVES

- 1) To study the verify symptoms of Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea in cases of obesity

2) To know the efficacy of Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea mother tincture in management of obesity with special emphasis on weight reduction along with dietary advices & exercises

MATERIAL AND METHODS

Source of data:

- 1) Anand Homoeopathic Hospital; Anand
- 2) Bethak Mandir peripheral OPD; Anand
- 3) Specially organized camp for weight reduction

Materials:

Materials utilized for the study will be:

- 1) A specially prepared Case Performa for the study
- 2) Source books of Materia Medica & therapeutics
- 3) Homoeopathic software RADAR10

Method of collection of data:

1. Case taking will be done according to the guidelines given by Dr. Hahnemann in Organon of Medicine in aphorism 83-104.

CRITERIA FOR SELECTION OF THE PATIENT:

1) INCLUSION CRITERIA:

- Patients of all age groups
- Patients of both sexes

- Patients having symptoms affected by lifestyle modification, irrespective of socio-economic status and occupation
- Patients having android and gynoid type of obesity
- BMI higher than 24.9 kg/m²

2) EXCLUSION CRITERIA:

- Patient having obesity due to medical disorders (Cushing syndrome, Nephrotic syndrome, DM, HTN, Thyroid) will be excluded by clinical examination
- People, who performed high intensity exercise, were using diuretics, were using laxatives, were pregnant women will be excluded
- People, who presented some aggregate pathology that modifies the percentage off at directly or indirectly will be excluded
- People, who were on medication, used herbalist to lose weight will be excluded

Type of study:

- Prospective study & Placebo control comparative study

Diagnostic criteria:

Diagnosis mainly based on the clinical presentation and obesity classification according to BMI (kg/m²).

Selection of remedy:

Selection of the remedy will be done on the basis of totality of symptoms for suitable medicine.

Selection of potency:

Homoeopathic mother tincture of selected remedy will be given to the patients in various doses as per requirement.

Duration of study:

Total duration of study will be 18 months.

Follow up and Record:

Cases will be reviewed on every 7 days for minimum 3 months.

SAMPLE SIZE AND SELECTION OF SAMPLE

1. Total 60 numbers of cases will be considered for study. Alternate method will be applied for the selection of patients in both treatment group and placebo group. If needed, patients will be rearranged according to age and male-female ratio in both groups.
2. The observation period of all cases for weight reduction will be 3 months for both treatment group and placebo group under medicinal treatment and supportive management.
3. Group distribution:
 - a) Group A-Treatment Group:

30 cases will be given anyone of three suitable medicines on the basis of symptoms similarity along with supportive management which includes dietary advices as well as exercises. Patients were selected at random sampling, irrespective of socio-economic status and occupation. Medicines will be given in tincture forms, who were receiving Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea to each patient.
 - b) Group B- Placebo Group:

30 cases will be kept as the control group, who will only receive the placebo and supportive management which includes dietary advices as well as exercises and give alcohol drops or distilled water as placebo.

 - Dietary advice will be given on basis of weight for both groups.
 - Dietary advice and exercises will be same for both treatment and placebo group.

General management:

- Patients were advice to do daily active exercises, to have nutritious food like vegetables and fruits.
- To avoid junk foods.
- Fixed diet management chart and exercises

Criteria for results:**Significant Improvement:**

- Decrease in weight with feeling of physical well-being, increase in physical activities
- Reduction in BMI > 4-5, 8-10% weight loss

Moderate Improvement:

- Less reduction in weight, low physical activity
- Reduction in BMI > 2-3, 4-6% weight loss

Mild improvement:

- Very less reduction in weight
- Reduction in BMI < 0-1, 1-2% weight loss

No Improvement:

- No reduction in weight even after defined period of treatment
- Reduction in BMI = 0, 0% weight loss

Criteria for verification of symptoms:**1) Verified Symptoms:**

Those symptoms which are described in remedy profile, present in patients and after administration of the suitable remedy the symptoms which are improved in patients are considered as VERIFIED SYMPTOMS.

2) Not Verified Symptoms:

Those symptoms which are described in remedy profile, present in patients and after administration of the suitable remedy the symptoms which are not improved in patients are considered as NOT VERIFIED SYMPTOMS.

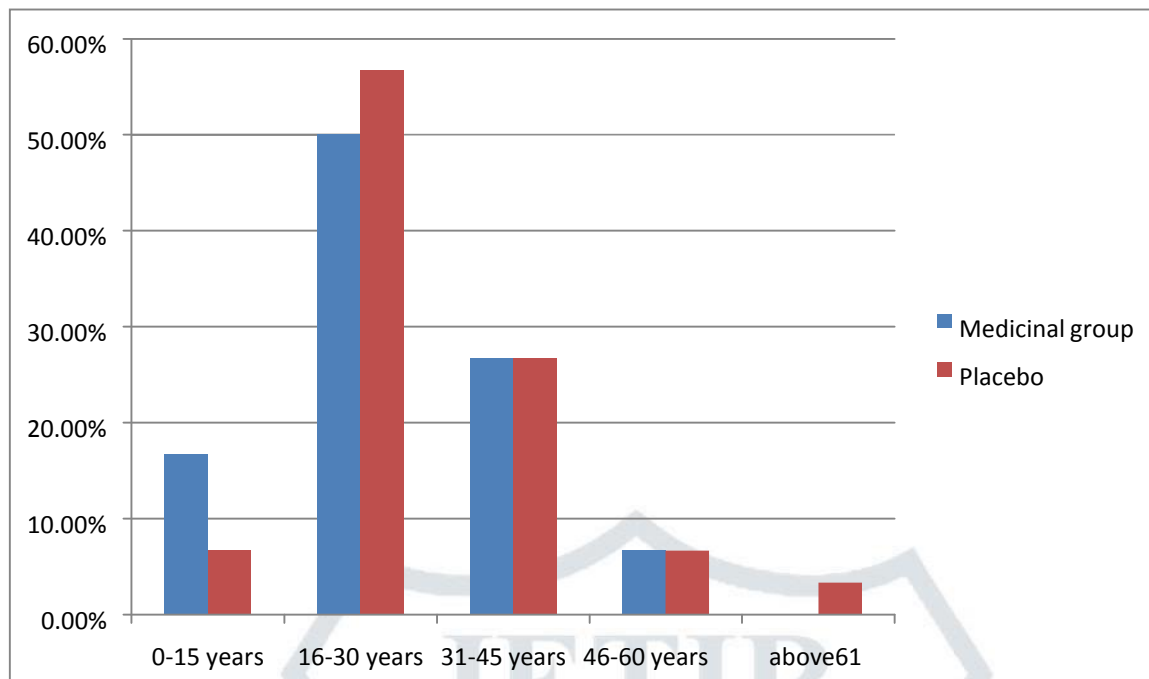
RESULTS

A sample of 60 cases, in which 30 cases for medicinal group and 30 cases for placebo group were taken for the study.

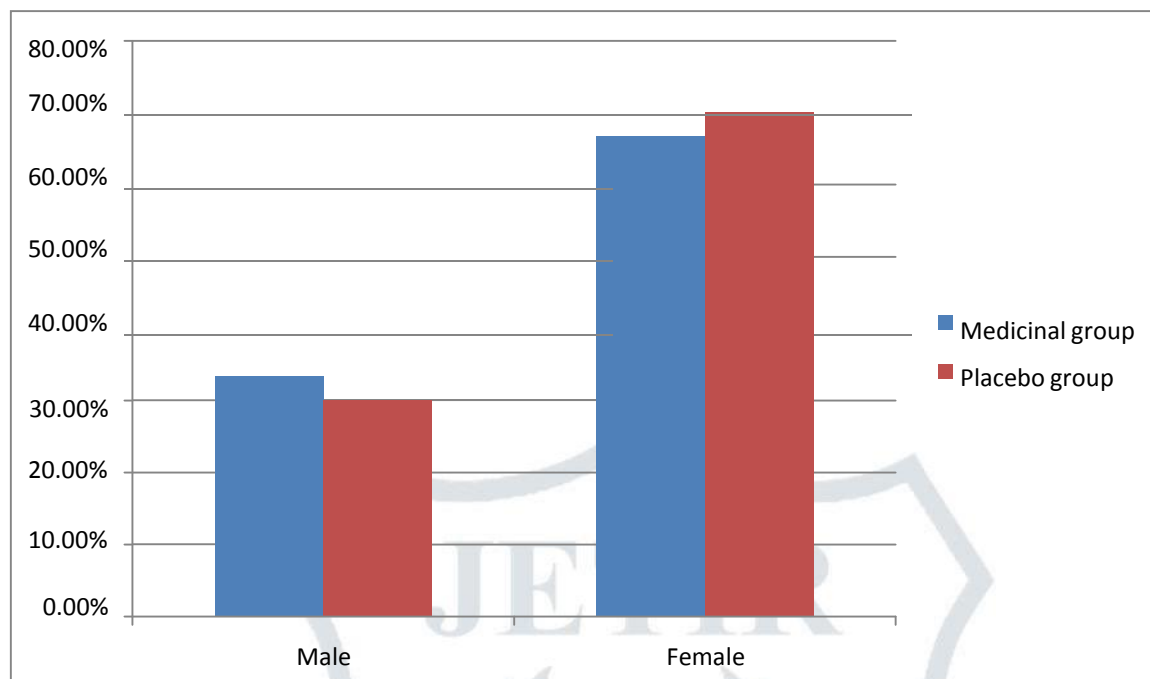
TABLE NO:1

DISTRIBUTION OF CASES ACCORDING TO AGE GROUP:

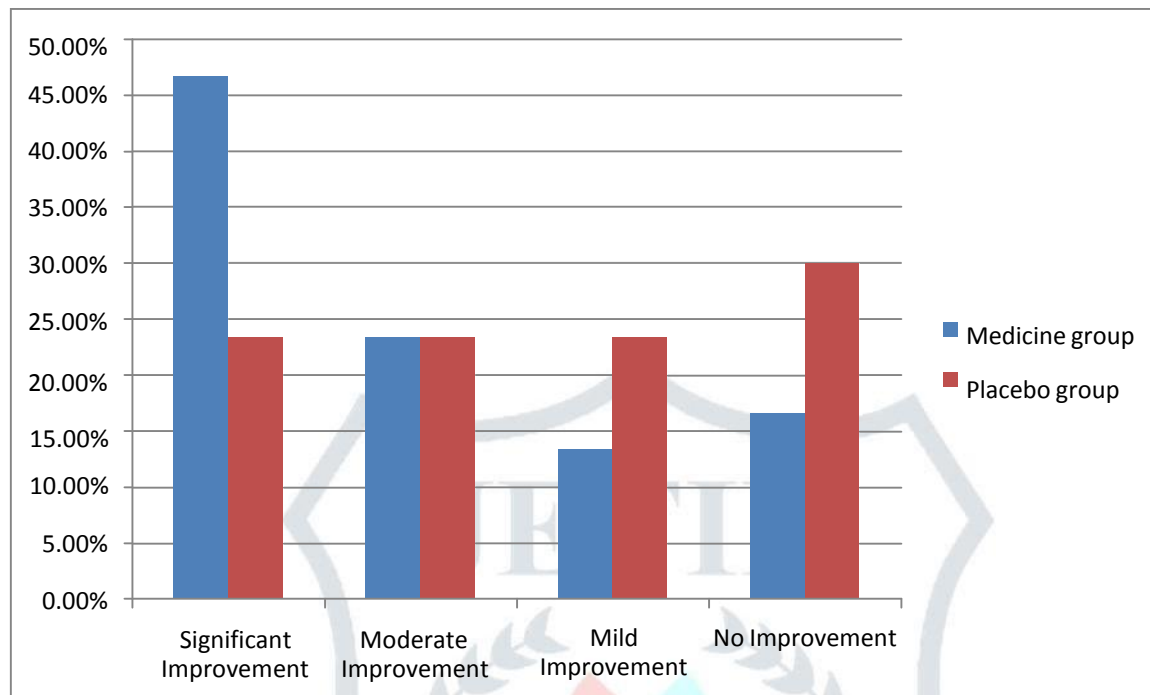
Age	Medicine group		Placebo control group	
0-15 years	(5/30)	16.67%	(2/30)	6.66%
16-30 years	(15/30)	50%	(17/30)	56.67%
31-45 years	(8/30)	26.67%	(8/30)	26.67%
46-60 years	(2/30)	6.66%	(2/30)	6.67%
Above 61 years	(0/30)	0%	(1/30)	3.33%
Total	30	100%	30	100%

Graph No:1 Distribution of cases according to age group**TABLE NO:2****DISTRIBUTION OF CASES ACCORDING TO GENDER:**

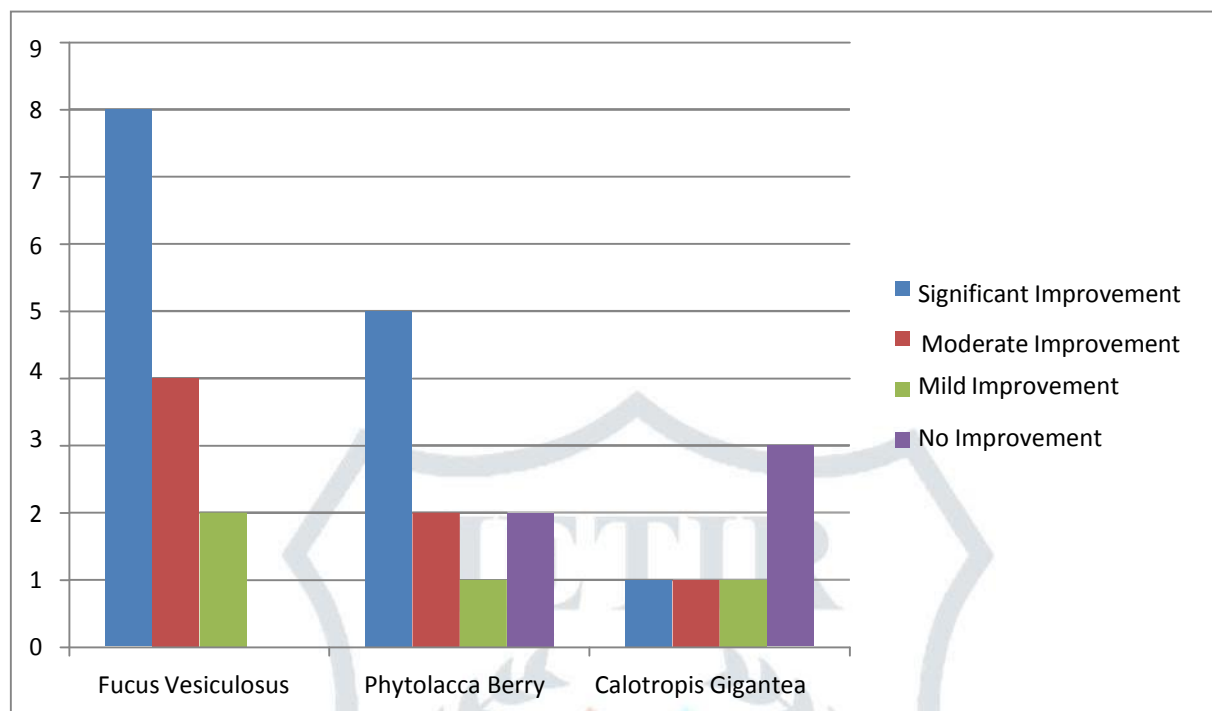
Sex	Medicine group	Placebo group
Male	10(33.33%)	9(30%)
Female	20(66.67%)	21 (70%)
Total	30(100%)	30(100%)

GraphNo:2 DISTRIBUTION OF CASES ACCORDING TO GENDER**TABLE NO:3 DISTRIBUTION OF CASES ACCORDING TO RESULT****(Medicine group+placebo control group)**

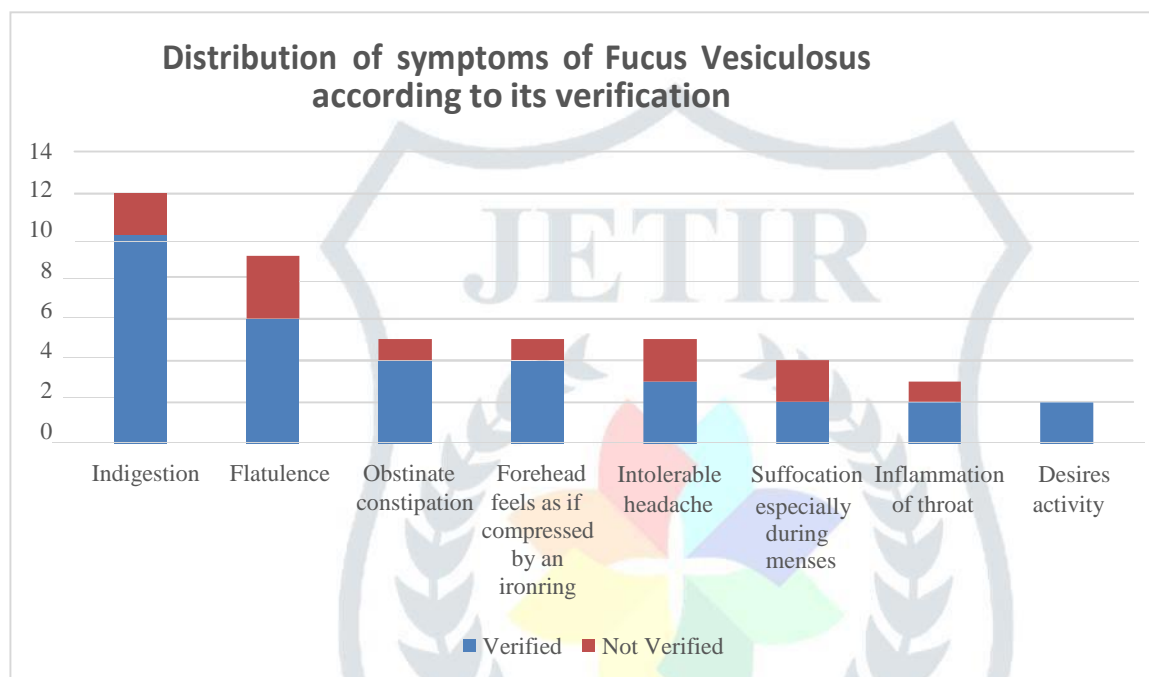
Result	Medicine group		Placebo group	
Significant Improvement	(14/30)	46.67%	(7/30)	23.33%
Moderate Improvement	(7/30)	23.33%	(7/30)	23.33%
Mild Improvement	(4/30)	13.33%	(7/30)	23.33%
No Improvement	(5/30)	16.67%	(9/30)	30%
Total	30	100%	30	100%

Graph No.3: DISTRIBUTION OF CASES ACCORING TO RESULT**TABLE NO:4 DISTRIBUTION OF CASES OF REMEDIES ACCORDING TO RESULT**

Sr. No	Name of Remedies	No. of cases	Significant Improvement	Moderate Improvement	Mild Improvement	No Improvement
1	Fucus Vesiculosus	14	8	4	2	0
2	Phytolacca Berry	10	5	2	1	2
3	Calotropis Gigantea	6	1	1	1	3
4	Total	30	14	7	4	5

Graph No.4: DISTRIBUTION OF CASES OF REMEDIES ACCORDING TO RESULT**TABLE NO:5 DISTRIBUTION OF SYMPTOMS OF FUCUS VESICULOSUS ACCORDING TO ITS VERIFICATION**

Sr. No	Symptoms	Verified	Not Verified
1	Indigestion (12=100%)	10(83.33%)	02(16.66%)
2	Flatulence (09=100%)	06(66.67%)	03(33.33%)
3	Obstinate constipation (05=100%)	04(80%)	01 (20%)
4	Forehead feels as if compressed by an iron ring (05=100%)	04 (80%)	01 (20%)
5	Intolerable headache (05=100%)	03 (60%)	02 (40%)
6	Suffocation especially during Menses (04=100%)	02 (50%)	02 (50%)
7	Inflammation of throat (03=100%)	02(66.67%)	01(33.33%)
8	Desires activity (02=100%)	02(100%)	00

Graph No. 5: DISTRIBUTION OF SYMPTOMS OF FUCUS VESICULOSUS**ACCORDING TO ITS VERIFICATION****TABLE NO:6****DISTRIBUTION OF SYMPTOMS OF PHYTOLACCA BERRY ACCORDING TO ITS VERIFICATION**

Sr. No	Symptoms	Verified	Not Verified
1	Vertigo on rising from bed (8=100%)	05(62.5%)	03(37.5%)
2	Obesity with much hunger (7=100%)	06 (85.71%)	01(14.25%)
3	Pressing pain in head Especially at forehead (6=100%)	04(66.67%)	02(33.33%)
4	Dullness of head (5=100%)	04(80%)	01(20%)
5	Pain in extremities (5=100%)	03(60%)	02(40%)
6	Weeping at night (3=100%)	01(33.33%)	02(66.67%)
7	Skin eruption, psoriasis (2=100%)	01(50%)	01(50%)
8	Heat in body (2=100%)	01(50%)	01(50%)

Graph No.6: Distribution of symptoms of Phytolacca Berry according to its verification

Distribution of symptoms of Phytolacca Berry according to its verification

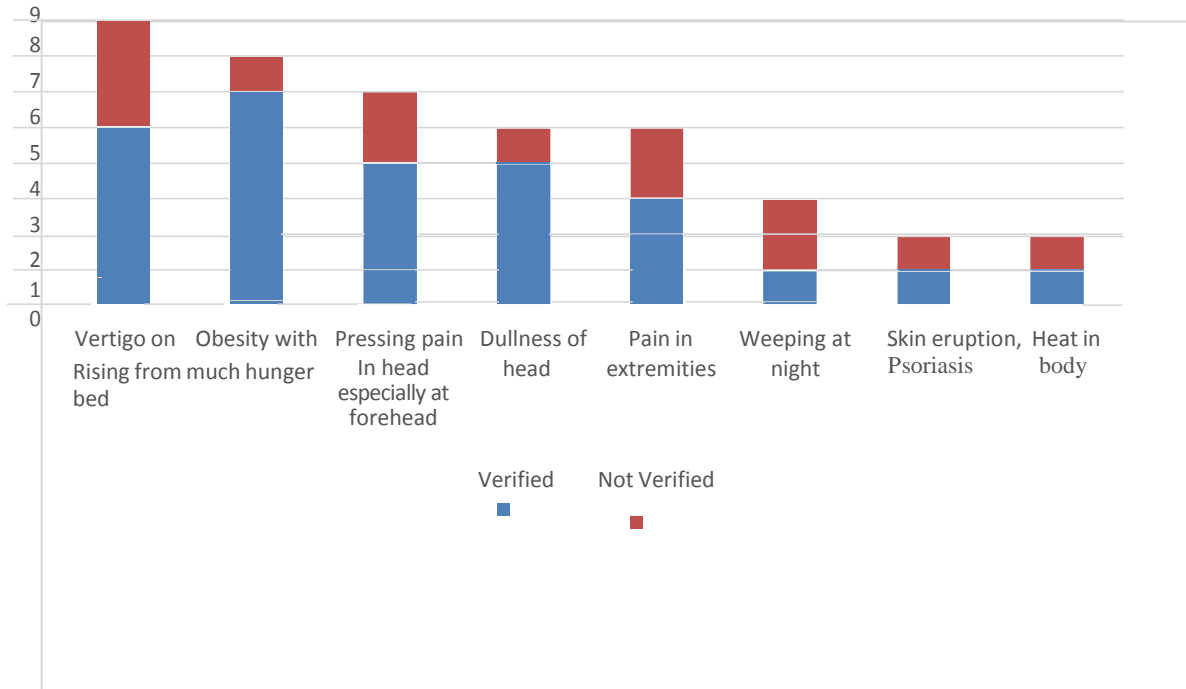
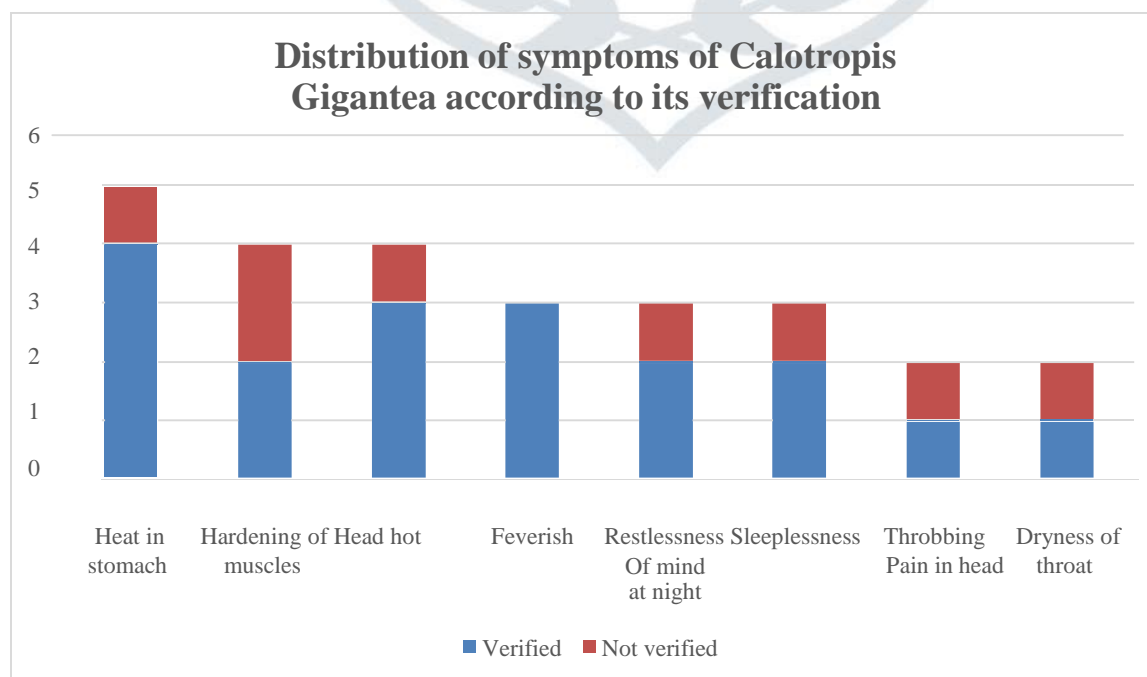


TABLE NO:7**DISTRIBUTION OF SYMPTOMS OF CALOTROPIS GIGANTEA ACCORDING TO ITS VERIFICATION**

Sr. No	Symptoms	Verified	Not Verified
1	Heat in stomach (05=100%)	04 (80%)	01(20%)
2	Hardening of muscles (04=100%)	02(50%)	02 (50%)
3	Head hot (04=100%)	03(75%)	01(25%)
4	Feverish (03=100%)	03(100%)	00
5	Restlessness of mind at night (3=100%)	02(66.67%)	01(33.33%)
6	Sleeplessness (03=100%)	02(66.67%)	01(33.33%)
7	Throbbing pain in head (02=100%)	01(50%)	01(50%)
8	Dryness of throat (02=100%)	01(50%)	01(50%)

Graph no.07: DISTRIBUTION OF SYMPTOMS OF CALOTROPIS GIGANTEA ACCORDING TO ITS VERIFICATION

STATISTICAL STUDY:

➤ **Chi square test of independence****Step-1**● **RESEARCH HYPOTHESIS :**

Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea having efficacy in cases of obesity with special emphasis on weight reduction along with dietary advices and exercises.

- **NULL HYPOTHESIS:** Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea have not clinical utility in cases of obesity along with dietary advices and exercises.

Step-2 Contingency

Table No. 8

group/result→	Significant + moderate Improvement	Mild improvement + Status quo	Total
MEDICINE GROUP	21	09	30
PLACEBO GROUP	14	16	30
TOTAL	35	25	60

Step-3:**Calculation:**

Expected frequency of individual cells = $\frac{\text{row total} \times \text{column}}{\text{whole total}}$

$$E_a = \frac{30 \times 35}{60} = 17.5$$

$$E_b = \frac{30 \times 25}{60} = 12.5$$

$$E_c = \frac{30 \times 35}{60} = 17.5$$

$$E_d = \frac{30 \times 25}{60} = 12.5$$

Step-4 calculation of χ^2

$$\begin{aligned} \chi^2_a &= \frac{(O-E)^2}{E} = \frac{(21-17.5)^2}{17.5} = 0.7 \\ \chi^2_b &= \frac{(9-12.5)^2}{12.5} = 0.98 \\ \chi^2_c &= \frac{(14-17.5)^2}{17.5} = 0.7 \\ \chi^2_d &= \frac{(16-12.5)^2}{12.5} = 0.98 \end{aligned}$$

Step-5 Total of $\chi^2 = 3.36$

Step-6 Degree of Freedom=(COLUMN-1)(RAW-1)

$$=(2-1)(2-1)$$

$$=1*1=1$$

Step-7 Table value of χ^2 at d.f.1 is 3.841

Step-8 Inference is calculated value is less than the table value.

Step-9 Conclusion-

By the above inference I conclude that the formulated research hypothesis is accepted which says that Fucus Vesiculosus, Phytolacca Berry and Calotropis Gigantea used in cases of obesity then the placebo treatment along with dietary advices and exercises.

DISCUSSION

Contents

Obesity is one of the most common problems. The results of management by various system of medication have been not satisfactory. Hence homoeopathic system has been approached and treated accordingly.

Study was conducted on remedy profile of obesity with special emphasis on Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea. It was done on patients attending OPD at Anand Homoeopathic Hospital (Run by Shree Ram Krishna Seva Mandal), Anand and specially organized camp at different places.

A present study was carried out in 30 cases with pre-defined homoeopathic mother tinctures and 30 cases with placebo along with the supportive management including dietary advices and exercises for both groups. The patients between the age group 7-64 were selected for the study. Both sexes are included and who belong to different socio-economic groups was taken as per inclusion and exclusion criteria. After that patient were followed up for minimum 3 months. After treatment, the result is analyzed according to decided criteria. Cases were reviewed at every 7 days followed by 15 days and 1 month.

So, I have studied 60 cases of obesity with special emphasis on weight reduction. Out of 30 medicinal cases and 30 placebo cases, I have made an effort to know the effectiveness of homoeopathic mother tincture and to ascertain the verification of symptoms of *Fucus Vesiculosus*, *Phytolacca Berry*, *Calotropis Gigantea* in management of obesity. I hereby discuss various aspect observed in 60 cases studied thoroughly and the outcome of the study is briefly discussed below.

1) AGE INCIDENCE:

In medicine group out of 30 cases, predominantly 15 cases (50%) are between the age group of 16 to 30 years, 8 cases (26.67%) are between 31 to 45 years, 5 cases (16.67%) are between 0 to 15 years, 2 cases (6.66%) are between 46 to 60 years. The eldest patient was of 60 years age and youngest patient was 7 years of age.

Another 30 cases were placebo control group and out of this the highest incidence was seen in the age group 16 to 30 years age group (17 cases) followed by 31 to 45 year age group (8 cases) than after 46 to 60 and 0 to 15 years of age group (2- 2cases of each) and minimum incidence was found in above 61 years age group (1case). The eldest patient was 64 years age and youngest patient was 13 years of age. (TableNo.1)

2) SEX RATIO:

In the present study, 41 cases (68.33%) were female, whereas male were only 19 cases (31.67%). (TableNo.2)

3) RESULT:

In the present study, medicinal cases out of 30, 14 cases (46.67%) shown significant improvement, 7 cases (23.33%) shown moderate improvement, 4 cases (13.33%) shown mild improvement, 5 cases (16.67%) shown status quo. However, in placebo control group, out of 30 cases there were 7 cases (23.33%) shown significant improvement, 7 cases (23.33%) shown moderate improvement, 7 cases (23.33%) shown mild improvement, 9 cases (30%) shown status quo.(TableNo.3)

4) REMEDIES USED IN RELATION WITH RESULT:

In the present study, selection of remedy was done among pre-defined remedies on the basis of symptoms similarity along with supportive management. *Fucus Vesiculosus*

had shown more cases of significant improvement. Fucus Vesiculosus had shown 8 cases of significant improvement, 4 cases of moderate improvement, 2 cases of mild improvement, and 0 cases of status quo out of 14. Phytolacca Berry had shown 5 cases of significant improvement, 2 cases of moderate improvement, 1 cases of mid improvement, and 2 cases of status quo out of 10. Calotropis Gigantea had shown 1 case of significant improvement, 1 case of moderate improvement, 1 case of mild improvement and 3 cases of status quo out of 6 cases. (TableNo.4)

5) VERIFIED SYMPTOMS OF FUCUS VESICULOSUS:

- Indigestion(10/12)
- Flatulence(6/9)
- Obstinate constipation(4/5)
- Forehead feels as if compressed by an iron ring(4/5)
- Intolerable headache(3/5)
- Suffocation especially during menses(2/4)
- Inflammation of throat(2/3)
- Desires activity(2/2)

6) VERIFIED SYMPTOMS OF PHYTOLACCA BERRY:

- Vertigo on rising from bed(5/8)
- Obesity with much hunger (6/7)
- Pressing pain in head especially at forehead(4/6)
- Dullness of head(4/5)
- Pain in extremities(3/5)
- Weeping at night(1/3)
- Psoriasis(1/2)
- Feeling of great heat in body(1/2)

7) VERIFIED SYMPTOMS OF CALOTROPIS GIGANTEA:

- Heat in stomach(4/5)
- Hardening of muscles(2/4)

- Head hot(3/4)
- Feverish(3/3)
- Restlessness of mind at night(2/3)
- Sleeplessness(2/3)
- Throbbing pain in head(1/2)
- Dryness of throat(1/2)

In the present study efforts were made to see that patients reduce their weight with satisfaction. Hence, on the basis of the above discussed points we can conclude that the homoeopathic mother tinctures are efficacious in cases of obesity along with dietary advices as well as exercises for weight reduction and have good scope.

SUMMARY AND CONCLUSION

The study was carried out to study the effects of homoeopathic mother tincture in management of obesity with special emphasis on weight reduction and to prepared theoretical remedy profile and verified them with special emphasis to individual remedy profile of *Fucus Vesiculosus*, *Phytolacca Berry*, *Calotropis Gigantea* with the help of cases of obesity.

60 different cases having complaint of increasing weight had taken as per inclusion and exclusion criteria, in which 30 cases given anyone of three suitable remedy on the basis of symptoms similarity along with supportive management to the individual case.

The major area of study was to access the obesity symptoms with special reference from individual remedy profile of *Fucus Vesiculosus*, *Phytolacca Berry*, *Calotropis Gigantea*. Out of all, 30 cases considering the totality of case and remedy profile matching with *Fucus Vesiculosus*, *Phytolacca Berry*, *Calotropis Gigantea*, the mother tincture was given in required doses. The cases were reviewed at every 7 days followed by 1 month and after that as per the requirement of the case. All the signs and symptoms were observed and checked for the verification in every follow up.

As a conclusion maximum verified symptoms of Fucus Vesiculosus, Phytolacca Berry, Calotropis Gigantea are listed. From all 3 medicines verified symptoms of obesity was portrayed.

The statistical analysis such as distribution of obesity cases according to age, sex, doses, result, remedies used in relation with result, distribution of cases of each medicine is calculated and interpreted. After this study, I have reached on following conclusion.

CONCLUSION

FREQUENTLY VERIFIED SYMPTOMS OF FUCUS VESICULOSUS

- Desires activity
- Indigestion
- Obstinate constipation
- Forehead feels as if compressed by an iron ring
- Flatulence diminished
- Inflammation of throat
- Intolerable headache
- Suffocation especially during menses

FREQUENTLY VERIFIED SYMPTOMS OF PHYTOACCA BERRY

- Obesity with much hunger
- Dullness of head
- Pressing pain in head especially at forehead
- Vertigo on rising from bed
- Pain in extremities
- Psoriasis
- Heat in body

FREQUENTLY VERIFIED SYMPTOMS OF CALOTROPIS GIGANTEA

- Feverish
- Heat in stomach
- Head hot
- Restlessness of mind at night
- sleeplessness
- Hardening of muscles
- Throbbing pain in head
- Dryness of throat

Besides my aim and objective, the following significant observations are made after the research work, which are as follows:

- Common age group affected - 16-30 years
- Sex prevalence – females were affected more
- BMI was considered while taking the case, i.e., kg/m^2
- The mother tincture used in doses as per the requirement of the case
- Majority of cases were significantly improved, Fucus Vesiculosus had shown more cases of significant improvement and moderate improvement followed by Phytolacca Berry and Calotropis Gigantea. Thus, proving efficiency homoeopathic mother tinctures in management of obesity on weight reduction in this study.

The sample size was less and the study was conducted for shorter duration but the results were encouraging.

This study was successful one in terms of fulfilling objectives set for the study and quite satisfactory. Homoeopathic mother tinctures along with supportive management including dietary advices as well as exercises are found to be highly efficacious in the management and treatment of obesity, as majority number of patients was found to improve and hence a positive relationship is established in the study concluded to test the experimental hypothesis.

BIBLIOGRAPHY**LIST OF REFERENCE:**

1. Ahmad, Obesity and Health, 1st reprint edition 1995, B Jain Publishers Pvt. Ltd.
2. Allen T.F.- Encyclopedia of pure Materia Medica, vol. 4 & 7 reprint edition 1994, B. Jain publishers Pvt. Ltd.
3. Banerjee P Materia Medica of Indian drugs, 23rd January, 1977
4. Boericke W.E. - Pocket manual of Homoeopathic Materia Medica with Indian Medicine & Repertory, 10th edition-2012, B Jain Publishers Pvt. Ltd.
5. CC Chatterjee's, Human Physiology, vol. 1 & 2, Twelfth Edition, CBS Publishers & Distributions Pvt. Ltd.
6. Clarke J.H. - A Dictionary of Practical Materia Medica, vol. 1 & 3, reprint edition 1995, B Jain Publishers Pvt. Ltd.
7. Ghosh S.C., Drugs of Hindoostan, 8th edition, Hahnemann Pub Co Ltd. Calcutta 1980.
8. Golwalla's medicine, 24th edition.
9. Guyton and Hall Textbook of Medical Physiology, Twelfth Edition
10. Hahnemann Samuel, Organon of medicine, sixth edition, translated by Dr. William Boericke. Published by B. Jain publishers, New Delhi, Reprint edition 2004.
11. Harrison, Principles of Internal Medicine, International Edition, 2001
12. Harsh Mohan, Textbook of pathology, Sixth Edition
13. Homoeopathic Therapeutics-2007 Edition Samuel Lilienthal
14. Jain Vinay, Mother Tinctures Therapeutics and Materia Medica, B Jain Publishers Pvt. Ltd.
15. Kansal Kamal, The Homoeopathic Mother Tinctures, 2nd reprint edition-Feb 2016, Indian Books & Periodicals Publishers, New Delhi-110005(India)
16. Sinha Yadubir, Miracles of Mother Tinctures with Therapeutic Hints and Treatment of Diseases, B Jain Publishers Pvt. Ltd.

ARTICLES and JOURNALS:

17. Asian Journal of Homoeopathy, May 2015-July 2015.
18. Biomedical & Pharmacology Journal, vol.(2), (2014)19.
19. Homoeopathy for All, vol. 17-October 2015, vol.19-January 2017
20. International Journal of Medical and Biomedical studies, vol.1, Issue3, May-June, 2017.

WEBSITES:

21. <https://www.homeopathycentre.org/remedy/fucus-vesiculosus>
22. <https://www.homoeotimes.com/july06/html/Phytolacca-viji.htm>
23. <http://www.homeopathyworldcommunity.com/forum/topics/are-mother-tinctureshomeopathic> (Are Mother Tinctures Homeopathic? -Homeopathy World Community)
24. <http://www.ijrh.org> vol.7,Issue3, Jul-Sep2013
25. <http://www.ijrh.org> vol.9,issue3,Jul-Sep,2015
26. http://www.medindia.net/alternativemedicine/homeopathy/Homeopathy_Mother_Tincture.htm (Homeopathy-Mother Tincture Uses and Side Effects)
27. <http://researchinhomeopathy.org/a-holistic-approach-towards-obesity/>
28. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769843/>
29. <http://www.similibi.com/tinctures/> (Homeopathy Mother Tinctures |Mother tinctures used in homeopathy |Mother Tinctures Materia Medica |Similibis)
30. <http://www.similima.com/miracles-of-homoeopathic-mother-tinctures> (Miracles of Homoeopathic mother tinctures | Similima)
31. <http://en.m.wikipedia.org/wiki/obesity>