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Efficacy Of Homoeopathic Miasmatic Medicine In CasesOf Obesity in Male Adolescents Age Group: Study protocol ForA Randomized,Single–Blind, Placebo–Controlled Trial

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Abstract— Obesity is a state of excess adipose tissue mass. It is a chronic medical condition which has major adverse effects on health leading to several metabolic disorders such as insulin resistance, Type 2 DM, Reproductive disorders, cardiovascular disease, pulmonary disease, gallstones, bone, joint and cutaneous diseases etc. Successful treatment, defined as the sustained attainment of normal body weight without producing unacceptable treatment induced morbidity is rarely achieved in clinical practice in spite of well indicated treatment. Reduced caloric intake is the cornerstone of obesity treatment but it has very poor compliance. Exercise and lifestyle modification is another important component in management of obesity but it requires regular disciplined behavior under expert supervision. Despite modest short term benefits from several agents, medication induced weight loss is not a cure and is often associated with rebound weight gain after the cessation of drug use. There is a great medical need for safe and effective therapy for the management of obesity as it has potential risk of morbidity and early mortality. Surgical/inventional therapy in form of bariatric surgery is also being employed but it has its own adverse effects along with cost ineffectiveness. So homoeopathy has the potential to develop as the first line of treatment in the management of obesity as it is effective, affordable and easy accessible to all.

Keywords—obesity, homeopathy, diet, –miasmatic treatment

INTRODUCTION

• Obesity is a metabolic condition mostly brought on or maintained by excess calories consumption but insufficiently used resulting in excess adipose tissue mass distribution in different anatomic depots which also has substantial implications for morbid chronic conditions.

• Although there is no direct measure of adiposity, the most widely used method to gauge obesity is the body mass index (BMI) which is equal to $\text{weight}/\text{height}^2$ (in kg/meter square).

- Other approaches to quantifying obesity include anthropometry (skinfold thickness), densitometry, CT, MRI and electrical impedance.
- Normal BMI among both men and women ranges from 19 to 26 kg/meter square; at a similar BMI women have more body fat than men.
- A BMI of 30 is most commonly used as a threshold for obesity in both men and women. • Various epidemiological studies suggest that a BMI > 25 is a risk factor for all metabolic, cancer and cardiovascular morbidity
- In the past few years, we all have observed an exponential increase in the prevalence of obesity worldwide, stimulating an increase in conversation around health and quality of life. With increased interest in research around obese people and their quality of life, the review of this literature has become more relevant in today's time. Multiple studies have demonstrated that obese persons experience significant disturbance in quality of life.

PREVALENCE–

According to the current global statistics Around 1 billion people world wide are living with obesity, including over 650 million Adults and atleast 340 million adolescents and 39 million children. The number is still increasing. WHO estimates that by 2025, approximately 167 Million People—adults and children—will become less healthy because of overweight and obesity.

PATHOGENESIS–

Obesity can result from increased energy intake, decreased energy expenditure or combination of two. Thus, identifying the etiology of obesity should involve measurements of both parameters.

RISK FACTORS OF OBESITY–

When a person weighs more than what is determined healthy for their height, they are diagnosed with obesity, a complex condition. Both adults and children are impacted by obesity. Excess weight gain can be caused by various variables, such as sleep habits, physical activity levels, and eating habits—Genetics, social factors of health, and using specific medications all impact.

• Food, Activity, and Sleep

Several variables contribute to excessive weight gain, including dietary habits, exercise schedules, and inadequate sleep pattern. Since food is a basic biological need, the body has evolved to have a strong "hunger drive." This question has stimulated much debate because many obese individuals believe that they eat small quantities of food, however it is more due to disproportionate balance in energy expenditure.

However, by merging data from several types of research, several dietary risk factors have been identified, including

- High energy density foods (particularly snack foods that are consumed in addition to meals rather than as a replacement);
- High fat and low fiber diets; and
- Drinking sugar-rich beverages.

• Social Determinants of Health (SDOH)

These are the places where people work, learn, play, and reside (SDOH). If these factors don't promote health, eating a balanced diet and getting adequate exercise may be challenging. Variations in SDOH impact the risks and consequences of chronic diseases, such as obesity, across

different racial, ethnic, and socioeconomic groups, as well as in other geographic locations and among individuals with varying physical abilities

- **Genomics and genetic causes** The obesity rate in human populations is too slow to be caused by genetic changes in human populations. However, gene changes may increase appetite and food intake, leading to obesity. Obesity, like many other medical diseases, is a result of the interaction of inherited and environmental polymorphisms in several genes that affect metabolism and appetite, predisposing to obesity when there is an adequate supply of dietary energy. As of 2006, over 41 locations on the human genome have been connected, in the presence of favourable conditions, to the development of obesity. Individuals carrying two copies of the FTO gene (fat mass and obesity-linked gene) are reported to weigh an average of 3–4 kg more and are 1.67 times more likely to be obese than persons without the risk allele.

- **Environmental factors**

It is now well acknowledged that environmental elements, such as the built and food surroundings and technological advancements, can affect how readily available and consumed certain foods are and how much physical activity communities engage in. Over the past few decades, technological advancements have generally tend to reduce physical effort out of the environment.

Numerous environmental factors have been found to increase people's propensity to engage in physical activity. All of these elements—which are frequently absent in suburban areas—tend to one of the causes of increasing prevalence of obesity.

- **Health Inequalities**

In terms of socioeconomic disparities, obesity trends in the UK are thought to be comparable to those in other high-income nations. Obesity rates have risen overall, although they have risen most among adults and children from rich origins, but it appears that women are more affected by the growing disparity in obesity than men.

- **Some illnesses and medications**

Obesity or weight increase are possible side effects of certain conditions, such as Cushing's disease. Certain antidepressants and steroids are among the drugs that can make you gain weight. The function of the microbiota and other variables, such as chemical exposures, are still being studied.

INDICATORS OF OBESITY:

- Body Mass Index
- Waist Circumference (WC)
- Waist/Hip Ratio (WHR)
- **Body Mass Index (BMI):**

Table 1. WHO Classification of BMI AND WEIGHTS& Nutritional status

BMI	Nutritional status
Below 18.5	Underweight
18.5–24.9	Normal weight

25.0–29.9 Pre-obesity

30.0–34.9 Obesity class I

35.0–39.9 Obesity class II

Above 40 Obesity class III

•Waist Circumference (WC):

Central obesity is defined by waist circumference (WC). Cardiovascular risk factor clustering is linked to central adiposity. It is well-recognized that individuals with central obesity have an increased risk of developing diabetes, dyslipidemia, hypertension, and metabolic syndrome (MS). Waist circumference (WC) seems to be a more reliable indication of central obesity than body mass index (BMI) and waist-to-hip ratio. Convenient to measure, WC has a stronger correlation with cardiovascular risk variables and intra-abdominal fat content.

Classification	BMI (kg/m ²)	Waist Circumference	
		<90cm (men) <80 (women)	≥90cm (men) ≥80 (women)
Underweight	< 18.5	Low*	Average
Normal	18.5-22.9	Average	Increased
Overweight	≥ 23		
At Risk	23.0-24.9	Increased	Moderate
Obese I	25.0-29.9	Moderate	Severe
Obese II	≥ 30	Severe	Very Severe

Waist/Hip Ratio (WHR): Using stretch-resistant tape with a constant 100 g tension, measure your waist circumference halfway between the top of the iliac crest and the lower edge of the least palpable rib. It is necessary to measure the hip circumference. Lower limits for these indicators may be required for the impacted populations if greater levels of abdominal fat for a waist circumference or waist-hip ratio level are linked to health consequences.

COMPLICATIONS AND HEALTH RISKS ASSOCIATED WITH OBESITY: Excess weight may increase the risk for many health problems, including

- Diabetes
- Hypertension
- heart disease and strokes
- certain types of cancer
- sleep apnoea
- osteoarthritis
- fatty liver disease
- kidney disease
- pregnancy problems, such as high blood sugar during pregnancy, high blood pressure, and increased risk for cesarean delivery (C-section).

Patterns of Obesity

There are two main patterns of obesity that are recognized in the population; these patterns are not gender specific and can affect people of any sex. However, cross patterns are observed to be more harmful. Pear-shaped obesity is the pattern observed in females, meaning that their thighs

and buttocks are where fat tends to accumulate. Male obesity typically forms an "apple" shaped pattern around the belly.

MANAGEMENT OF OBESITY:

Preventive measures are needed to mitigate the potential health and financial consequences of obesity as its prevalence rises globally. Environmental, technological, and economic changes have fueled the obesity epidemic. Numerous studies have examined BMI-prevention strategies in the community, at work, and in schools; however, these efforts have not had much impact thus far, and there is still a shortage of data supporting effective policies. • A multidisciplinary team comprising a doctor, dietitian, exercise therapist, and, in certain circumstances, a psychiatrist, psychologist, or other professional should ideally manage overweight and obese persons.

- The best weight loss and maintenance results are obtained with combined interventions. • The primary care physician can be quite helpful in identifying individuals who are fat or overweight early on. Instead of increasing physical activity, most people achieve this by consuming fewer calories.

- Since every treatment for obesity carries some level of risk, weighing the possible hazards and advantages of each method for a given patient is critical.

Dietary changes for the management of obesity-

A nutritional approach to weight loss must generally involve consuming less energy overall than it is expended.

- To lose weight, there must be at least a 500-calorie daily deficit.
- A clinical nutritionist's assistance may be necessary when prescribing an energy-restricted diet.
- Dietary modifications ought to be customized based on dietary tastes and permit adaptable methods of cutting calories.
- Diets that are overly restricted or nutritionally imbalanced are not advised because they can be hazardous and are ineffective over time.
- The total daily calorie intake distribution should occur throughout four to five meals and snacks, including breakfast.
- Eating more energy during the day is preferable to overindulging in the evening and snacking at night.

• The role of exercise in managing obesity

- Rather than promoting weight loss, exercise's primary function is to prevent weight gain. For example, to shed 500g, an obese individual must run 7 km per day for a week or follow a 500-kcal energy deficit diet.
- Patients should be advised to enhance "everyday" activities like walking rather than utilizing a vehicle for short-distance trips.
- The significance of prolonged physical activity should be emphasized.
- Expert Guidance on a planned exercise program should be provided.
- Exercise benefits include
 - a modest contribution to weight loss in adults who are overweight or obese, potential reduction of abdominal fat,
 - an increase in cardiorespiratory fitness,
 - a reduction in cardiovascular and diabetes risks beyond those resulting from weight loss alone,
 - and a potential decrease in muscle mass loss linked to diet.

- **Changes in behaviour for the treatment of obesity**

In the context of weight control, behavior therapy refers to a collection of ideas and methods that obese people can use to change the food, exercise, and thought patterns that lead to their extra weight.

1. Self-assessment of actions and development
2. Establishing goals
3. Stimulus management (for example, identifying and avoiding cues that lead to impulsive eating)

- **Management of diabetes in individuals with obesity**

Unwanted weight gain from diabetes treatment increases insulin resistance and harms cardiovascular health. When choosing an anti-diabetic drug for an obese diabetic, one can select from drugs that help with weight gain, like sulfonylureas, insulin, and thiazolidinedione, or medications that have a positive effect on weight, like metformin, GLP-1 analogs, DPP-IV inhibitors, and SGLT-2.

- **Using bariatric surgery to treat obesity**

It has been demonstrated that bariatric surgery is the most long-lasting and successful treatment for morbid obesity. Bariatric surgery has had outstanding results, such as the improvement in hypertension, diabetes, sleep apnea, CHF, angina, hyperlipidaemia, venous disease and other comorbidities and a considerable improvement in quality of life compared to medication therapy. Additionally, it enhances survival and cardiovascular outcomes.

Reasons to consider bariatric surgery

Patients between the ages of 18 and 65:

1. With a BMI of 35 kg/m² or higher (even in the absence of any health issues)
2. Having a BMI of at least 30 kg/m² and at least one obesity-related comorbidity, such as

- Type 2 Diabetes Mellitus,
- Hypertension,
- Hyperlipidaemia,
- Obstructive Sleep Apnoea
- Hypoventilation Syndrome,
- Venous Stasis,
- Asthma,
- Non-Alcoholic Fatty Liver Disease, Non-Alcoholic
- Steatohepatitis,
- Debilitating Arthritis,
- And Reduced Quality of Life

HOMOEOPATHIC APPROACH TOWARDS OBESITY

- A holistic approach is used in homoeopathy to treat any patient, regardless of illness.

Genetic predisposition and personal lifestyle choices are factors that contribute to obesity.

Since it differs from person to person, homoeopathy strongly emphasizes each person's unique constitution to lower obesity. If so, giving constitutional medicine is necessary to get a noticeable

change and lower weight. Additionally, constitutional medicine aids in lowering obesity-related risk factors.

- Homoeopathy, which is based on symptom similarity, has long been used as a treatment strategy. Numerous excellent therapies for treating obesity and overweight are listed in our Materia medica; nevertheless, comprehension of these treatments' mechanisms of action is necessary. There are a ton of discoveries and experiences in literature that need to be studied and comprehended. The judicial method needs to be the fundamental strategy.

Intercurrent Anti-miasmatic treatment should also be given along with indicated homoeopathic treatment on the basis of totality of symptoms

- Since most patients have moderate to low susceptibility, choosing a potency with low potency will yield better results. Since obese people typically have dull, sluggish temperaments, temperament is a key factor in treating obese patients.. However, there is no specific medication for obesity other than indicated homoeopathic treatment.

Hahnemann correctly emphasizes the value of a healthy diet and regular exercise in aphorism 261. The best course of action when using medicine for chronic illnesses is to remove these roadblocks to recovery (maintaining factors) and, when needed, provide the opposite: intellectual and moral stimulation, outdoor physical activity in nearly all weather conditions (daily walks, light manual labor), appropriate, nutrient-dense food and drink, etc.

- Therefore, a thorough investigation into these barriers to treatment is especially crucial in the case of patients with chronic illnesses, as these conditions are often made worse by these harmful factors as well as other disease-causing errors in diet and lifestyle that are commonly overlooked.

REVIEW OF LITERATURE

S. N	ARTICLE	AUTHOR	PUBLICATION	ABSTRACT	METHODOLOGY	CONCLUSION
1.	Obesity and its	Dr.Sonia Tuteja,Dr.K	IJHS 2020:4(1)	Obesity is a	Diagnostic criteria is based	Homoeopathy has a great
2.	Multifaceted	Priti	Pubmed,2	Obesity	Search of case series and	Intermittent

	prevention of Diabetes, Cancer, Obesity and other chronic diseases	ya Akter, Md.H abibur Rahman		of comorbidities.both have been linked to an increased risk of hormonal imbalance, cancer and other significant disorders which are concerning trend for cancer rates in the backdrop of rising obesity and diabetes rates world	and other inflammatory diseases in response to intermittent fasting	ated lipid levels and maintained the body mass index, also studies have shown that it has been instructed to be followed for the treatment and prevention of cancer and neurodegenerative diseases.
3.	The effect of nutritional and homoeopathic treatments versus exclusive nutritional treatments in patients with obesity or overweight	Del Catillo Salazar Gomez Maria Paola, Pena Cianeros Erik Misael, Ruvalcaba Lesezma Jesus Carlos	Biomedical and pharmacology journal, vol 7(2), (2014)	Evaluate the influence of using nutritional treatment accompanied by homoeopathic treatment for weight reduction .A	A quasi experimental study was conducted among 30 people aging over 18 with obesity or overweight and 30 women with unique nutritional treatment, randomly selected.	The use of a nutritional treatment accompanied by a homoeopathic treatment is better for weight loss than an exclusive nutritional treatment, the working hypothesis is

				prospecti ve comparat ive quasi-experime ntal study was conducte d,in 30 people with obesity or overweig ht who were subjected to a nutritiona l treatment accompa nied by ahomoeo pathic treatment and a control group integrate d by 30 people who were subjected to an exclusive nutritiona l treatment		
4.	Homoeop athic managem ent of obesity:A short review	Dr.Brunda Bezawada,D r.Liyi Karso	IJHS 2020;4(3):70-75	Obesity is aA burgeoni g public health challenge across the world.Ho moeopath	comprehensive search for all studies,beginn g from preclinical,clinic al to systematic reviews and	Various studies showed the gefficacy of homoeopathi c medicines in the management of

				ic managem ent of obesity along with lifestyle alteration is being researche d to study the effective ness of homoeop athic drugs which has been discussed in this review.	on obesity and homoeopathy was carried out.	especially when individualize d constitutional homoeopathi c medicine was prescribed instead of specifics o r combinations .This reinforces the homoeopathi c fundamental principles,"si milia similibus curantur" and the theory of individualizat ion.
5.	Efficacy of Homoeop athy in addition to a multidisci plinary interventi on for overweig ht or obesity in mexican adolescen ts:a study protocol for a randomiz ed,double blind,plac	Emma macais- cortes,Sarai Arellano- Alvarez,San dra Vega- Monroy,Viol eta Vera- Perez,Lidia Llanes- Gonzalez,Pil ar Sanchez- Navarrete,D olores Enciso- Gonzalez	Homoeop athy 2020:109(02):087- 096	Current recomme ndations for treating obesity in group adolescen ce include a comprehe nsive approach .Calcarea carb ostreau(CCO)m is a homoeop athic medicine	A randomized,plac ebo controlled,doubl e blind,parallel group superiority trail with 3 month study duration will be undertaken.	This is the first randomized controlled trial aimed to determine the fat reducing efficacy in obese adolescents of a homoeopathi c medicine CCO,given in addition to a multidisciplin ary intervention,c ompared with

	controlled trial			d in obese individuals, but its effects on weight and body fat are not completely		t is the same intervention
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CONCLUSION

The author hereby conclude that in the presence of nutritional abundance and a sedentary lifestyle along with genetic factors contribute to increase adipose energy stores and produce adverse health consequences in obese individuals. The increasing prevalence of obesity cases in adolescents and children have raised great concern. The increasing evidence regarding beneficial effects of homoeopathy as shown by data from case history, observational studies and randomized trials are encouraging. So the review of literature helps to ascertain the fact that homoeopathy is helpful in an area such as obesity where conventional treatment appears to have limitations and associated with some risks should make homoeopathic treatment a first choice for treatment. But more research is needed as there is a wide scope in this area of obesity as a global threat.

Moreover in a developing country like India, Homoeopathy offers a cost effective method to manage the health risks of obesity and reduce a global burden improving the quality of life, expectancy and other complications associated to obesity.

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