



**CONCEPT OF OBESITY AND ITS MANAGEMENT IN UNANI MEDICINE-A REVIEW**

**Dr. Mubarak Ali<sup>1\*</sup> and Dr. Sofia Naushin<sup>2</sup>**

<sup>1</sup>Research Associate, CCRUM, Ministry of Ayush, Govt. of India.

<sup>2</sup>PG Scholar Department of Amraz-E Niswan-Wa-Qabalat, A & U Tibbia College & Hospital (Delhi University), Karol Bagh, New Delhi.

**\*Corresponding Author: Dr. Mubarak Ali**

Research Associate, CCRUM, Ministry of Ayush, Govt. of India.

Article Received on 13/10/2016

Article Revised on 02/11/2016

Article Accepted on 23/11/2016

**ABSTRACT**

Obesity is a term used to describe body weight that is much higher than what is thought to be healthy for his or her height. Obesity (Simne mufrit) is a complex disorder which presents with number of risk factors in almost all age groups throughout the world. Obesity (Siman Mufrit) is a state of abnormal growth of adipose tissue, due to enlargement of fat cell size or an increase in fat cell number or in combination. W.H.O. projects that by 2015, approximately, 2.5 billion adults will be overweight and more than 700 million will be obese. Obesity is emerging as an important health problem in India. The National Family Health Survey (N.F.H.S) shows that 12.1% men and 14.8% women in India are either overweight or obese. Obesity is a risk factor in the development of hypertension, diabetes, gall bladder diseases, coronary heart diseases, certain type of cancers and infertility. It reduces life expectancy by 7.1 years in men and 5.8 years in women. It has become a serious public health problem. During the past decades efficacious strategies have been developed for prevention of these changes. These strategies involve general lifestyle changes, which include healthy diet, optimal weight, physical activity, no alcohol consumption. In the management strategies, The modern medicine has developed many drugs but side effects have limited their role in treating obesity. Unani medicine plays an important role in the same. In Unani system of medicine there is treasure of plant origin drugs having highest diversity in their properties both in dieto and herbal therapy, which can reduce body weight and prevent diet induced obesity. Thus, in this paper authors have tried to highlight the strength of Unani medicine in the management of obesity.

**KEYWORDS:** Obesity (Simne mufrit) Unani dieto obesity.

**INTRODUCTION**

Obesity is defined as a disease process characterized by excessive body fat accumulation with multiple organ-specific consequences and is a multifactorial disorder. Obesity and overweight occurs due to imbalance between calories consumed and calories utilized.

It is abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m<sup>2</sup>). The WHO definition is: BMI greater than or equal to 25 is overweight BMI greater than or equal to 30 is obesity.

Obesity is emerging as an important health problem in India. The National Family Health survey shows that 12.1% men and 14.8% women in India are either overweight or obese<sup>2</sup>. It has been suggested that such increase in obesity has been caused primarily by reduced level of physical activity, rather than by other factors. Obesity is a positive risk factor in the development of

hypertension, Diabetes, gall bladder diseases and coronary heart diseases and certain types of cancers especially hormonally related and large bowel cancers. As a result of obesity at least 2.8 million adults die each year. Additionally 44% of the diabetes, 23% of ischemic heart disease and between 7 to 41% of certain cancer burdens are attributable to overweight and obesity<sup>1</sup>. There are in addition several associated diseases, which although not usually fatal, cause a great deal of morbidity in the community e.g. varicose vein, abdominal hernia, osteoarthritis of knees, hips and lumbar spine and psychological stresses particularly during adolescence. It may lead to lowered fertility. It lowers life expectancy.<sup>[1]</sup>

Currently population of India is 1.22 billion among them 199 million are obese; it means India is gaining weight. Traditionally India is known for malnutrition but now overindulge. Overweight and obesity are now on the rise in low and middle income countries, particularly in urban settings. Nearly 35 million overweight children are living in developing countries and 8 million in developed countries Childhood obesity is associated with a higher

chance of obesity, premature death and disability in adulthood.<sup>[2]</sup>

### Obesity in Unani Medicine

The Unani system of Medicine is a traditional medical system widely practiced in south Asian countries, especially Indian subcontinent, originated in Greek and developed by Arab physicians, so called Graeco-Arabic medicine. Obesity comes from a Latin word 'obedere', to devour and in English means very fat. In Unani medicine obesity is termed as Siman Mufrit means excessive fat and farbahi (Persian word) means Motapa (obese).<sup>[3]</sup> First it was **Buqrat (420 BC)** who gave detailed description of obesity including its complications, prevention and management in his famous book "Fasoole Buqratia". Rofus (98-171 AD) in his book Tahzeel Sameen (treating obesity) describes that obese people are more prone to diseases.

According to Unani concept obesity is also known as **Samane Mufrat** (obesity). It is a Balghami (Phlegmatic) disease and hence Khilte Balgham predominates in the body of person and is a predisposing factor in causation of obesity. In this condition loss of movements of Aaza (organs) is due to excessive accumulated Balgham (fat) and cold temperament, hence the person becomes lazy and dull. This situation is just like Qaidul Badan (arrest of body). Balgham after mixing with blood produces lubrication in its Qiwan (viscosity)<sup>[4]</sup> Increase in the Balgham causes increase in viscosity of the blood and also constrict blood vessels. Deposition of Balgham (Atherosclerosis) obstructs Nufuz of Rooh (passage of oxygen) in the organs which finally cause death of the obese persons.<sup>[5]</sup>

When Shahem deposits in a particular organ it is called local or central obesity for example, protrusion of abdomen due to the deposition of fat. When there is generalized deposition of fat in the body, is called general or peripheral obesity.

The causes of Samane Mufrat are Virasati and Khilqi Samane Mufrat (hereditary and congenitally), Martoob Ghiza (fatty diet like meat, sweet dishes), Martoob Roghinyat (fatty oils), Baroodat Mizaj (coldness of temperament), Rahat wa warzish ki kami (excessive rest and lack of exercise), Kasrate Ghiza (excessive eating), Farhat (excess of joy), Soft cloths and soft bedding for sleeping, Intake of excessive alcohol especially after meal<sup>[6]</sup>

**Jalinoos (119-200 AD)** quoted that obese persons die early in comparison to the lean and thin persons. He was the first person, who establishes scientific methods to describe morbid obesity.

**Ali Bin Rabban Tabri (700-780 AD)** has described etiology and pathophysiology of Siman Mufrit in his famous book Firdousal Hikmat. He has emphasized that

excess eating and sedentary life style are most important factors for the obesity.

**Zakariya Razi (860-925 AD)** described that Tar Ghiza (oily food) is responsible for the obesity. He classified the obesity into general and local types and has given separate treatments for both types of obesity.

**Ibne Sina (980-1037 AD)** focuses on the taqleel ghiza (decrease in food intake) as the important tool for obesity treatment. He has prescribed the advia Mulattifa and has described detailed pharmacological action of these drugs about how they decrease the fat of the body. Infact, his described mechanism of non absorption of food from intestine is the same as the modern drugs, used in the treatment of obesity.

The food and drug administration has approved several medications for treatment of obesity. These falls in 2 categories, centrally acting drugs which suppress appetite e.g. phentermine and sibutramine and peripherally acting drugs which reduce fat absorption eg; Orlistat.<sup>[7]</sup> But the long term use of these drugs has been reported for several adverse effects, like Orlistat have been reported to results in loose stools, oily spotting, faecal urgency, flatus and the potential for malabsorption of fat soluble vitamins, whereas side effects of Sibutramine includes dry mouth, constipation and insomnia, the nor adrenergic effect of the drug can also increase heart rate and blood pressure.<sup>[8]</sup>

The two most common ways to assess your weight and measure health risks related to your weight are:

- Body mass index (BMI)
- Waist circumference (waist measurement in inches).

1. Body mass index A good way to decide if your weight is healthy for your height is to figure out your body mass index (BMI). You can use your BMI to estimate how much body fat you have.

### BMI CATEGORY

Below 18.5 Underweight  
 18.5 - 24.9 Healthy  
 25.0 - 29.9 Overweight  
 30.0 - 39.9 Obese  
 Over 40 Extreme or high risk obesity

2. Waist circumference (waist measurement in inches) Your waist measurement is another way to estimate how much body fat you have. Extra weight around your middle or stomach area increases your risk for type 2 diabetes, heart disease and stroke. People with "apple-shaped" bodies (meaning their waist is bigger than their hips) also have an increased risk for these diseases.

➤ Skin fold measurements may be taken to check your body fat percentage.

## MANAGEMENT OF OBESITY

Its incidence is steadily increasing, but till date there is no satisfactory treatment available in contemporary system of medicine. All the therapies still treatment of obesity is very difficult. Despite of beneficial effect of the drug, is often associated with side effects and there is rebound weight gain after cessation of the drug. When these therapies are fail to treat then people seek complimentary or safe and effective alternative medicine, which includes Unani system of Medicine. Unani Herbal Medicines plays an important role in the management of Obesity. Historically, herbal medicines have played a significant role in the management of both minor and major medical illnesses. Herbal medicines make up an important component of the trend toward alternative medicine. Usage of herbs for the management of obesity in the recent times is attracting attention. Our literature survey also indicated that these herbal products fall under an acceptable level of evidence or with no scientific background at all, or they have a scientific rational but not to an acceptance level. Attempts were made in the review to define the features of possible herbal weight loss product by improvement of bio markers like blood pressure and serum lipids without any side effects. Thus, in this paper authors have tried to highlight the strength of Unani medicine in the management of obesity.

### Unani principles for treatment of obesity

1. Correction of the Sue Mizaj Barid. Since the disease is cold in temperament, so herbal medicines having opposite temperament i.e. Hot and dry should be given. (Ilaj Bil Zid)
2. Elimination of the existing causes.
3. If there is accumulation of Madda or Khilt Balgham in the body use of Munafis Balgham (Expectorant), Mushil Blagham (Purgatives), Mudir (Diuretics), Muarrique Advia (diaphoretics) and Mujaffif (Desiccant) will be beneficial.
4. If there is excessive amount of Khilte Dam in the body then the use of Fasad (venesection) is beneficial, otherwise it is better to use purgative of Khilte Balgham.
5. In order to reduce Samane Muftrat, bulky foods with least nutritional values should be served so that mesenteric vessels will get least time to absorb the nutriment completely. Due to bulky and less nutritious foods, it occupies the space of stomach and obese patient feels fullness in the stomach.<sup>[9,10]</sup>

### According to above Unani basic principles of treatment is

1. Modify the Asbab e sitta zaroorya according to disease condition.
2. If the diet fails to treat the condition then start with single drug therapy.
3. When single drug therapy too fails then start with compound formulations and with regimental therapies.

1- Modify the Asbab e sitta zaroorya according to disease condition.

- a) Illaj Bil Ghiza (Dietotherapy).
- b) Illaj Bil Tadbeer (Regimental Therapies)

**Illaj Bil Ghiza (Dietotherapy):- According to Buqrat (Hippocrates, 420 BC),** the quality (kaifyat) and quantity (Kammiyat) of diet and importance of balanced diet in relation to occurrence of disease is important factor in the treatment of obesity. He said one who wants to reduce fat should take satu like diet (that is of low calorie value and fiber rich). With this, it is quite evident that concept of low calorie diet was present in the minds of ancient Unani physicians.

- They should reduce the amount of food.
- They should avoid all roghni ghizayen (fatty diets).
- They should use dry and dessicating food.
- Promote fasting in obese persons.
- Restrict meat, milk and liquor.
- Eat vegetables in excess.
- Hot spices should be added in ghiza (food) e.g. Filfil Daraz, Zeera, Lehsun because they have Mulattif property.
- Foods should be cooked in vinegar.

Some ghiza are listed below these are scientifically proved as anti obesity.

1. Carica papaya Linn.:- Carica papaya Linn. is popularly known as papaya. It contain enzyme called „Papain“ which helps to breakdown protein in the body. It is rich in antioxidants, Vitamin A and C and also a good source of fiber which acts as laxative. It also decrease the BMI,LDL and increase HDL.<sup>[11]</sup>
2. Ananas Comosus Pineapple or Anannaas:- The stem and core of pineapple contain an enzyme called Bromolein which helps in breakdown of proteins, increases digestion, improves immunity, and has anti-inflammatory, anti-thrombolytic, diuretic properties. It is a rich source of Vitamin B1 and C, it contains minerals like manganese.<sup>[12]</sup>
3. Brassica oleracea capitata also known as cabbage, patta gobi:- It lowers cholesterol level so it is a natural and effective cholesterol reducer. Cabbage prevents bile to absorb fat after a meal and lowers the overall amount of cholesterol It is a good source of beta carotene, vitamin C & fiber with very low calories.<sup>[13]</sup>
4. Psidium guajava:- It is a very common fruit known as pink guava or Amrood. It is a rich source of Vitamin C, roughage with no cholesterol and less digestible carbohydrates, it reduces appetite very easily thus helps in weight loss. Pink guava puree had anti-obesity properties and high enzyme activities.<sup>[14]</sup>
6. Allium cepa Linn. Onions or Pyaz dashti (Allium cepa L.) are widely used in the food industry for its nutritional and aromatic properties. According to a study, the ethyl acetate extract of onion (EEO) showed potent inhibitory effects on animal fatty acid synthesis (FAS)<sup>[15]</sup>

Intake of ghiza (diet) should be decreased in terms of Kaifiyat (quality) not in Kammiyat (quantity) that means low calorie foods should be use.

**Ibne Hubal Baghdadi** has cautioned that intake of diet should not be decreased suddenly but step by step otherwise side effects may occur in obese persons<sup>[16]</sup>

**Ilaj Bil Tadbeer (Regimental Therapies):-** Those tadabeers should be adopted, which produce Hararat and yaboosat in the body like

- Takan ki ziyadati (Exertion)
- Kasrat-e- Riyazat (Exercise)
- Ishal (Diarrhoea)
- Idrar-baul (Diuresis)

- Tareeq (Diaphoresis)
- Fasd (Venesection)
- Stay in hot and dry places.
- Reduce sleeping hours.9-13
- Hammam-e-Yabis (Dry bath) Appetite suppressors, e.g. rice of chirchita
- Dalak-e-Khashin (Rough Massage) Massage with haar and mohallil (Resolvent) oils like Roghan qust, Roghan soya etc
- Nafsiyati Ilaj (psychological treatment)<sup>[17,18]</sup> 5-6,8-14.

**Ilaj bil dawa (pharmaco therapy)**

- **Single drug therapy.**
- **Compound formulations**

**According to unani principles:** The disease is cold in temperament, so herbal medicines having opposite temperament i.e. Hot and dry should be given. (Ilaj Bil Zid).

S No.	Unani name	Scientific name	Mizaj	Dose	Action
1.	Asaroon	Asarum europium	Har-yabis	3-5gm	Musakhkhin
2.	Anisoon	Pimpinella anisum	Har-yabis	2-5gm	mulattif and mufatteh
3.	Bura armani	Armenian bole	Har-yabis	3-5gm	Mulattif
4.	Filfil siyah	Piper nigrum	Har-yabis	3ratti-1gm	Musakhkhin
5.	Fitrasaliyoon	Petroselinum crispum	Har-yabis	3-5gm	Mufatteh
6.	Karafs	Apium graveolens	Har-yabis	3-5gm	Moarriq, Mufatteh
7.	Khatmi	Althaea officinalis	Har-yabis	5-7gm	Mohallil, munzij-e- balgham
8.	Lehsun	Allium sativum	Har-yabis	3gm	Moarriq, Mulattif
9.	Luk Magsul	Coccus lacca	Har-yabis	0.5-2gm	Mujaffif ratoobat
10.	Marzanjosh	Oliganum vulgare	Har-yabis	6-9gm	Mohallil
11.	Murmaki	Commiphora myrrha	Har-yabis	1-2gm	Mufatteh
12.	Nankwah	Ptychotis ajowan	Har-yabis	3-5gm	Musakhkhin, mufatteh
13.	Naana	Mentha arvensis	Har-yabis	3-5gm	Musakhkhin, mulattif
14.	Qunturyun	Erythraea officinalis	Har-yabis	3gm	Mulattif
15.	Saunf	Foeniculum vulgare	Har-yabis	5-7gm	Mulattif, mufatteh
16.	Soya	Anethum sowa	Har-yabis	2-3gm	Mohallil
17.	Shibb-e-yamani	Aluminium hydroxide	Har-yabis	250- 500mg	Mujaffif
18.	Tukhme Sudab	Seeds of Ruta graveolens	Har-yabis	3-5gm	Musakhkhin, mulattif
19.	Zaravand	Aristolochia rotunda	Har-yabis	3-5gm	Mushile balgham
20.	Zeera	Carum carvi	Har-yabis	3-5gm	Mufatteh

**Some studies prove above drugs as anti obesity effect**

- Boerhaavia diffusa roots Also called as Punarnava root belongs to Nyctagenaceae family. A study demonstrated that Punarnava Root extract exhibited a significant anti-obesity and hypolipidemic activities by reducing body weight, visceral fat pad weight as well as lipid profiles, liver and kidney marker enzyme levels in high fat diet induced obesity rodents.<sup>[19]</sup>

- Glycerrhiza glabra Linn. Glycerrhiza glabra Linn. Commonly known as liquorice and belongs to family Fabaceae and it is known as Aslussoos in Unani. An experimental study was conducted with dried powder of ethanolic extract of Liquorice (Glycerrhiza glabra) on male wistar rats for 8 weeks. The result found that there was significant decrease in body weight, visceral adipose pad weights and Lee's index, serum TC, TG and glucose levels. Hence Licorice has anti-obesity activity, partly was mediated by decreasing dietary fat absorption from the intestine.<sup>[20]</sup>

- Apium graveolans Linn. Apium graveolans Linn. known as Tukhme karafs in Unani, belongs to family Apiaceae. An experimental study was conducted on ethanolic extract of Apium graveolans in adult male albino rats. The result showed, a significant decrease in body weight, serum total cholesterol, Triglycerides, LDL-C and significant increase in HDL-C in ethanolic extract treated groups.<sup>[21]</sup>

- Curcuma longa Linn. In a study, the antiobesity and antidiabetic effect of curcuminoid from Curcuma longa Linn, piperine from piper nigrum and quercetin from Allium cepa (CPQ) was evaluated. Results revealed that the obese rats treated with CPQ showed in marked decrease in plasma glucose, triglycerides, total cholesterol and LDL with a concomitant increase in plasma HDL in High fat diet combined with low dose STZ-induced diabetic rats. In addition, pre-treatment with combination consisting of "Curcumin with piperine and quercetin" (100mg/kg) once daily for 28 days had a

potent increasing effect on serum glutathione and catalase activities, along with, elevating pancreatic SOD activities compared to diabetic group.<sup>[22]</sup>

- *Piper nigrum* Linn. It belongs to the family Piperaceae. Commonly known as Black pepper and in Unani it is named as Filfil siyah. Piperine is the active principle found in this plant. Piperine supplementation at 40mg/kg body weight significantly ( $P < 0.05$ ) reduced the body weight, levels of plasma total cholesterol, low density lipoprotein (LDL), very low-density lipoprotein (VLDL) and the activity of 3-hydroxy 3-methyl glutaryl coenzyme A (HMG CoA) reductase in the liver, heart and aorta, VLDL and significantly ( $P < 0.05$ ) elevated the levels of plasma and tissue lipoprotein lipase (LPL) and plasma lecithin cholesterol acyl transferase (LCAT) in high fat diet fed male wistar rats.<sup>[23]</sup>

- *Zingiber officinalis* *Zingiber officinalis* (Zanjabeel) is a rhizomatous perennial herb belongs to the family Zingiberaceae. The phytochemicals, gingerol and shogaol increase the metabolic rate and thus help to “burn off” excessive fat and also suppress the absorption of calorie dense dietary fats from the intestines. Aqueous extract of *Zingiber officinale* at 0.4 ml/kg body weight showed significant decrease in plasma glucose and cholesterol in rats fed with 99% growers mash and 1% cholesterol<sup>[24]</sup>

- *Trigonella foenum Graecum*. Fenugreek belongs to family Fabaceae. In Unani it is named as Hulba. Fenugreek seeds have been shown to have Hypoglycaemic and anti-cholesterolaemic actions. A clinical study was conducted on FG seeds powder which was first extracted with Hexane to remove lipids then with ethyl alcohol to remove Saponins. and were divided into 3 groups, Patients were directed to take before lunch and dinner for 20 days. Blood samples were collected to estimate the lipid profile. Results showed a significant changes in between the groups. Serum cholesterol, triglycerides and VLDL levels were significantly decreased when compared to normal control group.<sup>[25]</sup>

- *Commiphora mukul* It is also called as Guggul and Balsam odendrom, in Unani it is called as Muqil, Mukul belongs to family Burseracea. It is a Oleo-gum-resin which contains Guggulosterone, Sessanin, Camphorine, mainly used to lower cholesterol level. Guggul is known for treatment of obesity and associated lipid disorders. It has recently come into prominence as an effective treatment for high blood cholesterol. It contains resins as lipid soluble steroids including guggulosterones E and Z.<sup>[26]</sup>

- *Sandroos* (*Trachylobium hornemannianum* Hayne.) *Sandroos* (*Trachylobium hornemannianum*) is an important resin which is obtained from Sal tree, botanically known as “*Shorea robusta*”, belongs to the family Leguminosae. It is abundantly found in forests of Africa, Australia, Spain and India. A study was conducted to evaluate antiobesity activity of *Sandroos* in Cafeteria diet induced obesity in rat model in two different doses (Single and double) and compared with standard drug Orlistat and Cafeteria diet induced animals groups and plain control groups. The result showed a

significant ( $P < 0.01$ ) decrease in food intake, body weight, RBS, lipid content, adipose cell size, fat pad weight, triglyceride (TG), total cholesterol, LDL and VLDL concentration in test drug treated groups. Highly significant ( $P < 0.001$ ) effect was observed in single dose treated group, where as the findings of double dose treated group were near to plain and standard control groups. Significantly ( $P < 0.01$ ) increase in body temperature, locomotor activity and HDL was observed in *Sandroos* treated groups with no side effects. No significant difference was found in the results of male and female rats in all the groups.<sup>[27]</sup>

#### ➤ Compound formulations

1. Jawarish Kamooni Kabir: It may be taken 4-6 gram twice a day, was found useful for obese patients.
2. Majoon Muhazzil: Dose 10 gram, it may be taken at bed time. This reduces fats from the body.
3. Majoon Muqil: Dose 10 gm, taken at bed time
4. Safoof Muhazzil along with Arq Zeera (25 gm twice a day).
5. Pure Honey and Jamun Vinegar
6. Itrifal Sagheer
7. Jawarish Falafali

#### Some unani nuskhe prescribed in many unani books as anti obesity

##### Prescriptions

Bekh Khatmi (*Althaea officinalis*), Bekh Qisaul himar, Bekh Jaosheer (*Ferula galbaniflua*) in equal part and make safoof, use it in the dose of 4.5 gm daily<sup>[27]</sup>

Ajwain (*Ptychotis ajowan*), Tukhm sudab (*Ruta graveolens*), Zeera (*Carum carvi*) 1 part each, Marzanjosh (*Oliganum vulgare*), Bora armani 4 part (Armenian bole), Luk (*Coccus lacca*) 1 part should be given in the form of safoof, dose 4.5gm with sirka (vinegar) on empty stomach<sup>[27]</sup>

Daily use of decoction of Filfil (*Piper nigrum*) 2 part, Fitrasalyon (*Apium graveolens*) 2 part, Asaroon 1/2 part, Anisoon 1/2 part is effective for weight reduction<sup>[28]</sup>

Ajwain (*Ptychotis ajowan*), Tukhm Sudab (*Ruta graveolens*), Zeera (*Carum carvi*) 1 part each, Marzanjosh (*Oliganum vulgare*) 4 part, Bora Armani (Armenian bole) 4 part in the form of safoof, dose is 4.5gm daily<sup>[29]</sup>

Luk magsool (*Coccus lacca*) in the dose of 3.5gm with Sirka (Vinegar) in morning on empty stomach<sup>[30]</sup>

Ajwain (*Ptychotis ajowan*), Zeera (*Carum carvi*), Sudab (*Ruta graveolens*), Karafs (*Apium graveolens*), Badiyan (*Foeniculum vulgare*), Marzanjosh (*Oliganum vulgare*), 1 part each, Bora armani (Armenian bole) 1/4 part, Luk (*Coccus lacca*) 2 part in the form of safoof dose is 5gm daily<sup>[31]</sup>

Ajwain (*Ptychotis ajowan*), Tukhm Karafs (*Apium graveolens*), Saunf (*Foeniculum vulgare*), Sudab (*Ruta*

graveolens), Zeera (*Carum carvi*) each 1 part, Marzanjosh (*Oliganum vulgare*), Bora armani (Armenian bole) 1/4 part, Luk Magsul (*Coccus lacca*) 2 part in the form of safoof dose is 4.5gm daily.<sup>[32]</sup>

Ajwain (*Ptychotis ajowan*), Badiyan (*Foeniculum vulgare*), Zeera (*Carum carvi*), Bora Armani (Armenian bole) 1/4 part, Luk (*Coccus lacca*) 2 part in the form of safoof dose is 4.5 gm daily.<sup>[33]</sup>

Ajwain (*Ptychotis ajowan*), Tukhm Sudab (*Ruta graveolens*) and Zeera (*Carum carvi*) in equal quantity in the form of safoof, dose is 4.5 gm daily.<sup>[34]</sup>

## CONCLUSION

Obesity and hyperlipidaemia are clearly described in Unani classical literature with etiological factors, clinical features, complications. On deep insight we can easily found the detailed description of management. Not only single drugs but compound formulations are also used for this purpose which demands the documentation and clinical trials on modern scientific parameters. A better understanding in the existing evidence based science on herbs will further guide a qualitative research in obesity management that will attract the end users by the effective benefits. The combination of multiple herbal preparations having different mechanism of action may be more beneficial in the management of obesity and its complications. Thus better randomized, double blinded, placebo-controlled clinical trials using herbal products will be of potential benefits.

## REFERENCES

- Park K. Park's Text book of Preventive and Social Medicine. 22nd ed. Jabalpur: Banarsidas Bhanot., 2013; 367-71.
- Dalton S. Obesity trends: Past, present and future. Topics in Clinical Nutrition, 2006; 21: 76.
- Parray SA, Bhat J, Iqbal SMF, Ahmad G, Jahan N, Rahman M. Concept of Obesity (Samane Mufrat) and its consequences in Greeko-Arab Medicine: A Review. Internationale Pharmaceutica Scientia., 2012; 2(1): 1-8.
- Tabri R, Firdosul Hikmat. NM Ed: Pakistan: Hamdard Foundation, 1981.
- Kirmani N. Moalajat Sharah Asbab. NM Ed: Hyderabad: Hikmat Book Depot, YNM.
- Nafees I. Moalajate Nafeesi. NM Ed: Lucknow: Munshi Naval Kishore, 1324.
- Jonathan Q. purnell, Obesity, web scientific American medicine., 2003.
- Haslam D. Obesity: a medical history. Obesity reviews, 2007; 8(1): 31-36.
- Nafees BI, Kulliyate Nafeesi. NM Ed: New Delhi: Idarae Kitabul Shifa, YNM.
- Mazhar S. The General Principles of Avicenna's Canon of Medicine. 1 Ed: New Delhi: S H Offset Press Darya Ganj, 2007.
- Athesh K. Anti-obesity effect of aqueous fruit extract of *Carica Papaya L.* in rats fed on high fat cafeteria diet. International Journal of Pharmacy and Pharmaceutical Sciences, 2012; 4(5): 327-330.
- <http://www.livestrong.com/article/291887-bromelain-for-weight-loss/>.
- <http://www.livestrong.com/article/454922-does-cabbage-burn-fat/>.
- Norazmir MN & Ayub MY. Beneficial Lipid-Lowering Effects of Pink Guava Puree in High Fat Diet Induced-Obese Rats. Mal J Nutr, 2000; 16(1): 171-185.
- Yi Wang et al. Inhibitory Effects of Onion (*Allium cepa L.*) Extract on Proliferation of Cancer Cells and Adipocytes via Inhibiting Fatty Acid Synthase. Asian pacific journal of cancer prevention, 2012; 13(11): 5573-9.
- Parray SA, Bhat J, Iqbal SMF, Ahmad G, Jahan N, Rahman M. Concept of Obesity (Samane Mufrat) and its consequences in Greeko-Arab Medicine: A Review. Internationale Pharmaceutica Scientia., 2012; 2(1): 1-8.
- Razi, Zakariya. Alhavi Kabeer (Urdu translation) vol. VI, p.183-239. New Delhi: CCRUM, 1980. 2. Hussain, Abid. Moalijat-e-Nafeesi (Urdu), vol. 4, p.134-136. Lucknow : Matba Nami Munshi Nawal Kishore, NA.
- Sina, Ibn. Alqanoon Fit Tibb (Urdu translation by Ghulam Hussain Kantoori), vol.1 (part 1), vol. 2 (part 4), p.36, 378-380. Lahore: Sheikh Mohammad Bashir & Sons.
- Khalid M and Siddiqui HH. Evaluation of weight reduction and anti-cholesterol activity of Punarnava root extract against high fat diets induced obesity in experimental rodent. Asian Specific journal of tropical Biomedicine. Elsevier., 2012; 1-6.
- Zafar Ahmad Malik and Pyare Lal Sharma. An Ethanolic extract from Licorice (*Glycyrrhiza glabra Linn.*) exhibits Anti-obesity effects by decreasing dietary fat absorption in a high fat diet-induced obesity in rat model. Int Journal of Pharm Sci drug, 2011; 2(11): 3010-18.
- Mansi K et al. Hypolipidaemic activity of seed extract of celery (*Apium graveolans*) in rats. JAIM, 2009; 5(20): 301-315.
- Kaur G, Meena C. Antiobesity and Antidiabetic effects of Combinatorial extract of Curcumin-Integration of traditional and modern concepts., 2012; 8(2): 101.
- Gupta P et al. Antiobesity effect of Safoof Muhazzil, a polyherbal formulation in cafeteria diet induced obesity in rats. Published in, Indian journal of Experimental Biology., 2011; 50(11): 776-84.
- (4): 405-421. 30. Agoreyo F. O, Agoreyo B. O and Onuorah M. N. Effect of aqueous extracts of *Hibiscus sabdariffa* and *Zingiber officinale* on blood cholesterol and glucose levels of rats. African Journal of Biotechnology., 2008; 7(21): 3949-395.
- M. Prasanna. Hypolipidaemic effect of fenugreek: A clinical study. Indian Journal of Pharmacology. 2000; 32: 34-36.

26. Kuppurajan K, Rajagopalan SS, Rao TK, Sitaraman R. Effect of guggulu (*Commiphora mukul-Engl.*) on serum lipids in obese, hypercholesterolemic and hyperlipemic cases. *The Journal of the Association of Physicians of India.*, 1978; 367-73.
27. Ibne Sina. *Alqanoon Fil Tib* (Urdu translation). Vol. 4. New Delhi: Idra Kitabus shifa., 2010; 1445-47.
28. Razi Zakaria. *Kitabul Hawi* (Urdu translation). Vol.6. New Delhi: CCRUM., 1999; 187-203.
29. Jurjani Ismail. *Zakheera Khwarzam shahi* (Urdu translation). Vol.8. New Delhi: Idara Kitabus Shifa., 2010; 24-28.
30. Arzani A. *Tibbe Akbar*. New Delhi: Idara Kitabus Shifa; YNM., 756; 758.
31. Baghdadi Hubal I. *Kitabul Mukhtarat fit Tib* (Urdu translation by CCRUM). Vol.1 and 4. New Delhi: CCRUM., 2007; 137-38, 263.
32. Razi Zakaria. *Kitabul Mansuri*. New Delhi: CCRUM., 1991; 171: 223.
33. Quamri Abul Mansoor Hasan. *Ghina Muna* (Urdu translation by CCRUM). New Delhi: CCRUM., 2008; 384-90.
34. Ahad Rizwan K. *Tarjuma sharah asbab* (Urdu Translation). Vol.4. New Delhi: CCRUM., 2010; 322-29. 19. Tabri Rabban. *Firdaus-al-Hikmat*. New Delhi: CCRUM., 2010; 246-48.