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Concept of Siman Mufrit(Obesity) in Greeco-Arab Medicine: A Review

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ABSTRACT

Obesity is a chronic and highly prevalent medical condition associated with increased risk of developing numerous comorbidities such as hypertension, type 2 diabetes, stroke, and heart disease. Obesity is a state of excess adipose tissue mass or characterized by excessive accumulation of fat in the subcutaneous and deep tissue of the body, usually 20% or more of an individual's body weight. The current clinical definition of obesity, as defined by expert committees, is based on body mass index (B.M.I) which is simply derived by dividing weight by height in meters squared. It results from an excessive intake of calories in relation to energy expenditure over a long period of time. Obesity is more prevalent in developed than developing countries. It has been increasing at an alarming rate throughout the world over the past two decades to the extent that it is now a pandemic, affecting millions of people globally, and it is the second leading cause of preventable death in the United States. As per unani philosophy, Siman Mufrit is a balghami disease. Khilte balgham predominates in the body of obese persons and hence is considered the predisposing factor in the causation of obesity because shahem and sameen(fats) are having barid ratab mizaj. The people having barid mizaj have a slower metabolic rate and finally suffer from obesity. Unani system of medicine recommends different regimens and a large number of drugs that can be successfully used in the treatment of obesity. Some single drugs as well as compound formulations mentioned by unani physicians are being used in the treatment of obesity, particularly the drugs which are endowed with properties like mufatteh sudad, musakhin, mudir, muhazzil and mulattif.

Keywords: Siman Mufrit, Obesity, Unani medicine.

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INTRODUCTION

Daud Antaki defined Siman Mufrit (Obesity) as:

“In all the conditions and circumstances it is the fact normalcy is the beauty. Equilibrium is a good sign in every state. The better condition of human body is being in normal status, i.e neither obese nor lean or thin”¹.

Obesity is a state of excess adipose tissue mass^{2,3,4,5} or characterized by excessive accumulation of fat in the subcutaneous and deep tissue of the body, usually 20% or more of an individual's body weight^{3,6}. The current clinical definition of obesity, as defined by expert committees, is based on body mass index (B.M.I) which is simply derived by dividing weight by height squared. It results from an excessive intake of calories in relation to energy expenditure over a long period of time^{7,8}. Men and women with a B.M.I of 25.0 to 29.9 kg/m² are considered overweight, and those with a B.M.I 30 kg/m² or greater are considered obese^{7,9,10,11}. Using percent body fat, obesity is defined as >25% body fat for men and >30% body fat for women¹².

The incidence of obesity is increasing dramatically worldwide. According to W.H.O global estimates, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2014¹³. Overweight/obesity is the fifth leading risk factor for global death. At least 2-8 million adults die each year as a result of being overweight or obese¹⁴. 44% of the diabetes burden, 23% of the ischemic heart disease burden and between 7% & 41% of certain cancer burdens are attributable to overweight and obesity¹⁴. As per NFHS 4 (2015-2016), women who are overweight or obese (B.M.I ≥ 25.0 kg/m²) are 20.7% as compared to 12.6% in NFHS 3 (2005-2006) likewise men who are overweight or obese (B.M.I ≥ 25.0 kg/m²) are 18.6% as compared to 14.3% in NFHS 3 (2005-2006)¹⁵.

Historical Perspective:

In ancient Greek medicine, the health hazards associated with obesity were clearly noted in the medical writings of Buqrat (Hippocrates 460 B.C), who stated that “sudden death is more common in those who are naturally fat than in the lean”. Also documented in his writings was the correlation among an inordinate body mass, infertility, and oligomenorrhoea in those affected by this condition^{9,16,17}. Rufus (98-171 A.D) he describes that obese people are intolerant to hunger, hard work and indigestion. They are more susceptible to severe diseases like epilepsy, paralysis, dyspnoea, cholera, syncope, and hyperpyrexia as they have less blood and more phlegm.¹⁸ Jalinooos (Galen 119-200 A.D) A highly regarded greek physician of the roman times, went as far as to characterized obesity as “moderate” and “immoderate” the former being some what of a variation

of a normal condition, and latter carrying with it considerable morbidity and mortality^{9,16,17}. Ali bin Rabban Tabri(700-780 AD) has described etiology and pathophysiology of Siman Mufrit in his famous book Firdaus-ul- Hikmat¹⁹.Zakaria Razi(860-925 AD) described that murattab ghiza (oily food) is responsible for the obesity. He classified the obesity into general and local type²⁰.Ali Ibn-e-Abbas Majoosi (930-994 A.D) has opined that hararat-e-ghrizia diminishes slowly in obese persons and that is why, obese persons die early than others²¹. Ibn-e-Sina(980-1037 A.D) focuses on the taqleel-e-ghiza (decrease in food intake) as the important tool for obesity treatment in his treatise Alqanoon fittib²². His treatment was an appetite suppressant made of almonds and beef suet, marsh mallow root, and oil of violets, taken for ten days to abate hunger.²² Ibn Hubal al Baghdadi(1121-1213 A.D) suggested that obese persons should avoid taking fatty diets, cooked in oil. He has stressed on the gradual decrease in weight not abruptly otherwise, adverse effect will be observed in the patients²³. Ismail Jurjani has described the complications of obesity and their treatment. He has focused on the diet as well as drug therapy for the treatment of obesity²⁴. Ibn-e-Nafis(1207-1288 A.D) in his book ,has given the correlation between the excessive obesity and cardiovascular, cerebrovascular, respiratory, and neurological complication²⁵. Daud Bin Umar al Antaki(1541 -1599 A.D) writes in his treatise “Tazkerat ul Albab” has said that “in all the conditions and circumstances it is the fact normalcy is the beauty. Equilibrium is a good sign in every state. The better condition of human body is being in normal status, i.e. neither obese nor lean or thin”¹. Nooh bin Mansurul Hasan Qamri in his book “Ghina Mun’a” has given description of obesity including its complication¹⁸.

Another well known unani physician Akbar Arzani states that excessive accumulation of fat is harmful for human body, it invites certain type of diseases²⁶.

All other eminent scholars have given detailed description of obesity in their literature including Hakeem Azam Khan, Mohammad Hasan Qarshi and Ghulam Jilani.

Etiology:

Following are the causes of Siman Mufrit(Obesity) as described by the ancient unani scholars

Virasati and Khilqi Siman Mufrit(Hereditary and Congenital)²⁷

Farhat (excess of joy)

Rahat(excessive rest and lack of exercise)

Martoob ghiza(fatty diet like meat,halwa),martoob roghinyat(fatty oils)^{19,20}

Sarwat wa ghina(richness)¹⁹

Baroodate mizaj(cold temperament)^{28,29}

Kasrate ghiza(excessive eating)

Kasrate sharabe noshi (excessive intake of alcohol)²⁹

Razi and Ibne Nafees have mentioned that obesity is a hereditary problem²⁷. Some families have history of obesity so their offsprings have more chances of to be obese. It is described in Aqsarai and Nafeesi that congenitally corpulent are endowed with barid mizaj^{27,28,29}. According to the Razi and Rabban Tabri, ratlab ghizayen produce obesity much rapidly in comparison to what other diets do.^{19,20}

Unani Concept of Siman Mufrit: Siman Mufrit is a balghami disease. Khilte balgham predominates in the body of obese patients and hence is considered the predisposing factor in the causation of obesity because shahem and sameen(fats) are having barid ratlab mizaj³⁰. The people having barid mizaj have a slower metabolic rate and finally suffer from obesity²⁹. This causes more input of energy than that of expenditure and finally the extra energy is stored in the form of extra fat. It is described in Aqsarai and Nafeesi that congenitally corpulent are endowed with barid mizaj^{27,28}. Buroodat and rutoobat indicates obesity²³.

In normal physiology, vessels are dilated and their dilatation is essential for the supply of ghiza(nutrition) and rooh (oxygen supply) to organs. In obesity excessive accumulation of shaham (fat)in the body and balgham in blood causes continuous “imtalai kaifiyat” (increase in vasopressure) which causes vasoconstriction of vessels and finally decreases the hararate gharizia. This decrease in hararate gharizia may lead to the rupture of blood vessel, and adme tarveeh (tissue anoxia)and due to this fasade mizaj takes place and ultimately sudden death may occur.^{21,24,25,29}

Complication:

Unani physician were well aware of the complication of obesity at that time and gave detailed description of diseases in their classical literature, according to the systemic involvement like respiratory, cardiac, neurological, and reproductive.

1. According to Hippocrates “sudden death is more common in those who are naturally fat than in the lean⁹
2. Galen has described “ when a person becomes extreme obese, then it is a dangerous condition and the chances of sudden death increases. This can be described by the fact that the vessels gets compressed due to obesity leading to two types of problems; one is imtela (congestion) and other is adme tarveeh(tissue anoxia)²⁰.
3. If a person is obese since childhood, then the death of such person occurs earlier as compared to lean person^{22,24}.

4.If obese persons suffer from any disease they are not easily cured and they are not able to tolerate hunger and thirst^{22,24,21,28,27}.

5. According to Rufas:

Obese people are intolerant to hunger, hard work and indigestion. These people get involved in co-morbid conditions and severe diseases, they become susceptible to severe diseases like epilepsy, paralysis, dyspnoea, cholera, syncope and hyperpyrexia. sometimes, purgatives kill these people and if they are not killed they become very weak as they have less blood and more phlegm. If the obese female become pregnant, then abortion or difficulty in labour occur¹⁸.

6. Akbar arzani has categorized all these into seven headings²⁶

Dyspnoea(due to vasoconstriction and rooh is not provided to all organs).

Coma and syncope (due to imtila)

Haemorrhage of vessels or in the body

Palpitation, fever and vomiting

Infertility (both in men and women as mani is not formed completely, abortion may occur in women and if conceived the child will be physically unfit).

Paralysis

Diarrhoea and dysentery

Line of treatment of Siman Mufrit:

Taqleele ghiza^{20,22,23,25,26,27,28}

Fatty diet restriction²³

Har yabis ghiza¹⁹

Har yabis tadabeer(hot dry regimen)^{18,20,26} may applied to develop yaboosat.

Istifragh (tareeq, qai, idrar, ishall, and fasd)²⁵

Dalke muhallil²²

Mulattif^{19,20,27,28}

Tabdeele mizaj^{24,27,28}

Mudirrat^{18,20,24,26,31}

Mushilat^{20,26}

Hammam on empty stomach^{27,28}

Diet therapy (ilaj bil ghiza):

They should avoid all roghni ghizayen (fatty diets) and should not eat food cooked in oil²³.

Hot spices should be added in ghiza(food) e.g filfil draz, zeera, lehsun,because they have mulattif property.

Intake of ghiza (diet) should be decreased in terms of kaifiyat (quality) not in kamiyat (quantity) that means the ghizayen should be less caloric but should give feeling of fullness of stomach.

Hot drink^{18,22,31,32}

Single meal in a day^{18,22,24,31}

Lateef ghizayen^{27,28}

Exercise before meal^{27,28}

Regimental therapy (Ilaj bit Tadbeer):

kasrate riyazat(excess of exercise)^{20,22,24,26,33}

Tareeq^{18,20}

Fasad²⁰

Dalak khasin(massage with rough cloth)^{26,33}

Massage with hot roghaniyat²³

Vomitting¹⁸

Hammam moarriq^{18,22,26,32}

Hammam with salt water³³

Drug therapy(Ilaj bid Dawa):

Use of drugs posses properties like Mufatteh sudad, Musakhin, Muhazzil, Mushil, Mudir and Mulattif etc.

Single drugs :

Luk^{34,36,37,38,39,40,41}, Marzanjosh^{34,36,38,39,41}, Tukhme^{35,36,37,39} suddab^{35,36,37,39}

Krafs^{34,36,37,38}, Lehsun⁴¹, Nankhawah^{34,36,37,38}, Zeera^{35,36,37,38,39,40,41}, Saunf^{37,38,40,41}, Fitrasaliyoon⁴¹

Sandroos⁴¹

Murakkab drugs:

Safoof Muhazzil^{31,42}, Majoone Muhazzil, Itrifal Sagheer, Majoone Falafali, Jawarish kamooni, Dawa-ul-luk^{40,41}, Anqardiya, Sikanjabeen⁴¹, Baladari

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