ACTA SCIENTIFIC NUTRITIONAL HEALTH

Volume 3 Issue 6 June 2019

Review Article

Accumulation of Fat and Concept of Temperaments in Unani Medicine

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Received: April 29, 2019; **Published:** May 29, 2019

Abstract

Graeco-Arabian Medicine or Medieval Islamic medicine or Unani medicine as it is called in Indian subcontinent derives its term from the original Greek medicine which was developed during the Arab civilization. In Indian subcontinent it is called as Unani medicine out of adherence to its true historical derivation whereas European historians call it Arab medicine. Unani is derived from 'Unan', which is an Urdu language translation of Greece.

Unani medicine may have disappeared from the country of its origin, but it has flourished in Indian subcontinent. Arab traders who entered through the Western Ghats long before Mughals introduced Unani here.Unani scholars have described fat in the context of organs which are homogeneous in structure throughout and known as "Mutashahibul-Ajza" or "A'za' basitah" which means simple organs and smallest part of which exactly resembles the whole. Several prominent unani philosophers like Avicenna (Shiekh-ur-Rais bu Ali Sina) in his book canon of medicine and Haly Abbas (Ali ibn al-majusi) in his book "Kaamil-us- Sana" described temperament of fat as cold. Temperament is a holistic sorting of behavior patterns among individuals in unani medicine. There are four such temperaments. Avicenna in Canon of Medicine has described composition of fat as "Fat is formed from wateriness and greasiness of the blood and cold coagulates it. This is why heat dissolves it." The concept of its accumulation according to the unani medicine is discussed in this manuscript.

Keywords: Body Fat; Unani Medicine

Introduction

"Make less thy body hence,
and more thy grace
Leave gourmandizing; know,
thy grave doth gape
For thee thrice wider than
for other men".
Henry IV-Part II, V.v

The essential constituents and the working principle of the body according to Unani can be classified into seven main groups which are called as Umoor-e-tabiya namely Arkan or elements, comprising earth, water, air and fire as different states of matter and the building blocks of everything in the universe; Mizaj (temperament); Akhlat (humours); Aza (organs); Arwaah (life, spirit or vital breath); Quwa (energy); and Afa'al (action) [1].

Among these the major pillar of Unani system of medicine is the concept of temperament. This concept was originally introduced by Hippocrates when he stated that;

"It is more important to know what sort of person a disease has then to know what sort of disease a person has".

Temperament is taught and understood under the heading of behavioral sciences nowadays but Unani medicine and the. Arab physicians applied the concept of temperament (Mizaj) on universal scale. Greco-Arabian system had tried to give the idea of mixture

or blend of humours as also described in Canon of Avicenna [2]. The four dominant temperaments are, as is well known, labelled Sanguineous (Damvi), Phlegmatic (Balghami), Bilious (Safravi) and Melancholic (Saudavi).

Several parameters are described by Unani physicians through whom the states of temperament of individuals are diagnosed to be applicable clinically. Jalinoos, Ali-ibn-e abbas Majoosi, Zakaria Razi and Ismail jurjani were of the opinion that these parameters are only five (Ajnas-e-khamsa) but the most viable, acceptable and complete is the one given by Avicenna who described ten parameters known as Ajnas-e-ashra which are: Touch (Malmas) , Fat and muscles (Shaham wa Laham), Hairs of the body (Sha'r), Body complexion (Laun-al Badan), Physique (Haiyat-ul-Aza) , Responsiveness of the organs (Kaifiyat-e-Infe'al), Sleep and wakefulness (Naum-wa-Yaqza), Functions of the organs (Afal-ul Aza), Excreta of the body (Fuzlat-e-Badan) and Psychic reactions (Infialat-e-Nafsaniyah) [1].

Fat and muscles (Shaham wa Laham) is one of the important amongst the ten determinants of temperaments. Whenever we use Ajnas-e-ashra for the assessment of the temperament one of the most important part which is encountered is the fat of the body. Assessment of fat is much an integral component of the assessment of temperament as excess quantity of fat is the indication of cold and moist temperament. Excessive musculature indicates hot and moist temperament whereas excess quantity of fat is attributed to cold and moist one [3].

Concept of Body fat

Unani scholars have described fat in the context of organs which are homogeneous in structure throughout and known as "Mutashahibul-Ajza" or "A'za' basitah" which means simple organs and smallest part of which exactly resembles the whole.1 Fat (Shaham and Sameen) is a white and very soft entity which is most of the times found along or around fascia and nervous tissues. Temperament of fat is cold [4].

Majoosi has also described fat as cold in his most coveted book "Kaamil-us-Sana" [5].

The amount of body fat is directly related to the amount of fat distributed just below the skin layer. The pattern of distribution of subcutaneous (below skin layer) body fat is quite consistent among populations. The subcutaneous fat comprises of approximately one half of the total fat in the body [6,7]. The skin and subcutaneous fat can easily be pinched and measured with the help of a constant pressure skin fold calliper. The calliper measures the thickness of two layers of skin and the connected underlying fat. This skin fold thickness has been used by numerous researchers to find body density and thereby percentage of body fat [8].

Bruce R. Bistrian says that: "Approximately 50% of body fat is subcutaneous. The use of skin fold callipers to define the skin fold is the most practical technique to estimate body fat" [9].

Allama Nafees while describing accumulation of fat writes that

"Main reason of production of fat is coldness because it is the coldness which coagulates or freezes the greasy and liquid part of blood, this is the very reason why cold organs have abundance of Shaham and Sameen and hot and dry organs lacks it" [4].

The subcutaneous fat

The amount of body fat is directly related to the amount of fat distributed just below the skin layer. The pattern of distribution of subcutaneous (below skin layer) body fat is quite consistent among populations. The subcutaneous fat comprises of approximately one half of the total fat in the body. By the end of World War I anthropologists realized the feasibility of measuring subcutaneous fat. By 1930 researchers developed an instrument to measure selected sites on the body with relative accuracy. The thickness of a double layer of skin and the fat beneath it is measured with the special calliper that exerts a constant tension on the site. Skin folds must be taken at precise standard location if the results are to be reliable and used for comparative purposes [5,6].

The skin and subcutaneous fat can easily be pinched and measured with the help of a constant pressure skin fold calliper. The calliper measures the thickness of two layers of skin and the connected underlying fat.

According to Gupta and Mahajan

"A criterion of obesity is skin fold thickness and this method is used because of non invasive and easy method involved. The most commonly measured skin fold is the triceps skin fold value and values of triceps skin fold which are indicative of obesity are 18mm in men and 32mm in women" [10].

K. Park while describing the assessment of obesity recounts the importance and meaning of skin fold thickness as "A large proportion of total body fat is located just under the skin. Since it is most accessible, the method most used is the measurement of skin fold thickness. It is a rapid and non invasive method for assessing body fat. Several varieties of callipers (e.g. Harpenden skin Callipers) are available for the purposes" [11].

Concept of Tabiyat

The Unani physician believes that the healthy state of the human body is maintained by a Supreme regulating power known as Tabiyat or Quwwat-e-Mudabbira (medicatrix naturae), which is gifted from the Creator. The concept of Tabiyat is much broader than the concept of immunity. It regulates various processes of life like growth, development, control of various physiological processes and reproduction. In addition it also helps in defending the body against various harms. Suppression of this gifted power leads to disease. Therefore, the duty of the physician is to use such methods/treatments that modulate the body's own innate healing response (Tabiyat). This can be achieved by stimulating the Hararat-e-Ghariziya (Vital energy of body), which is decreased in a diseased person making him vulnerable to environmental and pathological challenges. In Unani System of Medicine the human body is considered as a single unit, which is an amalgam of seven components known as Umoor-e- Tabiya. These seven components are Arkan (Elements), Mizaj (Temperament), Akhlaat (Humours), Arwaah (Life force), Aaza (Organs), Quwa (Faculties) and Afa'al (Functions). According to Unani philosophy, the body is made up of the four basic elements i.e. Earth, Air, Water and Fire which have different temperaments i.e. Cold, Hot, Wet and Dry respectively. After mixing and interaction of four elements a new compound having new Mizaj (Temperament) comes into existence i.e. Hot Wet, Hot Dry, Cold Wet, and Cold Dry. The body has the simple and compound organs, which receive their nourishment through four Akhlaat (Humours) i.e. Dam (Blood), Balgham (Phlegm), Safra (Yellow Bile) and Sauda (Black Bile). Each humour has its own temperament. Blood is hot and moist, phlegm is cold and moist, yellow bile is hot and dry and black bile is cold and dry. Every person attains a temperament according to the preponderance of the humours in his/her body and it represents the person's healthy state.

So, correct assessment of the temperament of a body either in healthy or diseased state is very important for a physician and for this purpose Ibn-e-Sina had proposed ten parameters called as Ajnas-e ashra. One of the important parameter in Ajnas-e-ashra is the assessment of fat content of the body. Earlier Fat content of the body was assessed by the look of the patient only and no scientific procedure was adopted to assess fat.

In the earlier times Unani physicians used to assess fat content (Shaham) by merely looking at the built of an individual. Now, as various standard equipment's and methods are available for the assessment of body fat which can be incorporated in assessing this important parameter of Mizaj determination viz. Shaham.

Regarding accumulation of fat in body Allama Nafees while describing accumulation of fat writes that: "Main reason of production of fat is coldness because it is the coldness which coagulates or freezes the greasy and liquid part of blood this is the very reason why cold organs have abundance of Shaham and Sameen and hot and dry organs lacks it" [4].

Accumulation of Fat

In translation of Sharah Kulliyat Qanoon it is described that: "Shaham and Sameen both of them always indicate coldness and this type of body is loose. Lack of Shaham and Sameen indicate towards hotness" [12].

According to Arzani in Akseer al qaloob "Fat is white and soft entity which is produced by the aqueous part of blood, which is coagulated by coldness and most of the time found on fascia and organs like peritoneum, omentum and intestines and hotness melts it down" [13].

Classical Unani literature shows that Unani scholars from very beginning have described two major types of fat i.e. - 1. "Sameen" (the liquefied fat) 2. "Rwaj" (the viscous and coagulated fat) Words liquefied and coagulated used here are in reference to the normal body temperature i.e. fat which is found in liquid state at the normal body temperature i.e. "Sameen" and the one which is coagulated or in solid state at normal body temperature is "Rwaj". Ibn-al Qaf and Masih have classified fat according to the place where it is found e.g. fat which is found on muscles is called as "Sameen" and the one found on places other than muscles is called as "Sarb" [13].

Conclusion

It has been observed that Phlegmatic individuals have higher fat percentage as compared to other temperaments and it is recommended that unani concept of accumulation of fat and its interaction and pattern of accumulation in different temperaments should be incorporated while determining the temperament of individual and weight loss regimens and diets. Further research in this aspect is need of the hour.

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