



## RELATION BETWEEN FUSUL ARBA'A (FOUR SEASONS) AND AKHLAT ARBA'A (FOUR HUMORS)

Sana Kausar<sup>1\*</sup>, Mohammad Zulkifle<sup>2</sup>, Tasfiya Hakeem Ansari<sup>3</sup>,  
Sayed Tauleha Tabassum Tayyeb Bukhari<sup>1</sup>

<sup>1,2</sup>Department of Kulliyate Tib, National Institute of Unani Medicine, Bangalore, 560091

<sup>3</sup>Department of Mahiyatul Amraz, National Institute of Unani Medicine, Bangalore, 560091

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### ABSTRACT

*Tibb* (Medicine) is art and science of life, dealing with the maintenance of health and the prevention as well as cure of disease. In Unani System of Medicine (USM) the concept of *Asbab Sitta Daruriyya* (six essential factors) is a well-known concept that can help in the prevention of many diseases which are the result of poor management of these factors. These factors have significant impact on human body and responsible for the preservation of existing health. Nobody could escape from these factors during their life. Any disproportion in these factors may cause disease. Concept of *Akhlat* (humors) is a key concept in *Umur Tabi'iyya* (seven basic principles) and occupied a central place in Unani Medicine. *Sihhat* and *Marad* (health and disease) are generally related with *Akhlat* (humours). So *Khilti Sihhat* can be defined as that condition in which *Akhlat* (humors) are present in harmony in respect of *kammiyat wa kaifiyat* (quantity and quality). Any type of alteration in quantity or quality of one or more *Khilt* may cause diseases in the body. Each *Khilt* is related to a specific season, diet, age, and constitution of the human body. Any alteration produces adverse effects over the human body. Seasonal changes come in context of *Taghayyurat tabii* (normal changes) of *Hawa Muhit* (air) which is one among six essential factors. Classical textbooks of USM are enriched with the adverse effects of variation of *Fusul Arba'a* (four seasons) on human body. This paper will elucidate the relation of *Fusul Arba'a* (four seasons) and *Akhlat Arba'a* (four humors) and its affection on the human body.

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### INTRODUCTION

**Fusul Arba'a (four seasons)** Dictionary meaning of season is segregation<sup>4,8</sup>. Season segregates one period to another period so named as season<sup>4</sup>. In Unani System of Medicine (USM) seasonal changes are included in *Taghayyurat tabii* (normal changes) of air<sup>1,4,8</sup>. These seasonal changes are necessary for maintenance of human health. Each season affects human health via changing the air quality<sup>3</sup>. On the basis of rotatory movement of sun and earth, there are four seasons in a year i.e. *Fasl-i-Rabi* (spring season), *Fasl-i-Sayf* (summer season), *Fasl-i-Kharif* (autumn season) and *Fasl-i-Shita* (winter season)<sup>1,3</sup>. Each season have its own quality by which it affects the human body<sup>4</sup>. Humans change own habits like their habit of food, clothing etc. according to the seasonal variations as an adaptation for survival as well as prevention from diseases. In summer season humans prefers wearing cotton clothes and having *Barid* (cold) diet whereas in winter season they prefer wearing woollen clothes, having *Har* (hot) diets and usage of heaters, blowers etc. In spite of adopting all these measures humans can prevent their body from affection of seasonal variations upto a limit but not completely.

**Hawa muhit (Atmospheric air)** our body is in constant contact with *hawa muhit*<sup>4,5</sup>. *Hawa muhit* is referred to simply as *hawa* (air) because of abundance of *rukn hawa*<sup>6</sup>. It is beneficial for body<sup>6</sup> until its quality is good in terms of seasonal variation. As in every season its quality gets changed. It is also one of the major factors which affect the *Akhlat*. In this context Majoosi said that, if air is clean and pure then *Akhlat* and *Arwah* would also be clean, but if it is impure then *Akhlat* and *Arwah* would also become impure. Masihi also said that *ruh* is made up from inhaled air. This air when reaches heart, is transform in to *ruh*<sup>2</sup>. Galen presented the view that *ruh* is obtained from peripheral air<sup>11</sup>. *Arwah* is most liable to get affected by impure air as air is it's one of the components<sup>6</sup>. E.g. excess hotness of air may cause *Su' Mizaj Harr* of *Arwah* which may affect *Mizaj* of organs like *Qalb* (heart), *Kabid* (liver) etc. Hence quality of *Akhlat* produced may also get affected<sup>5</sup>. This abnormal / impure *Akhlat* favours production of *Khilti Amrad* like *Amrad Damwiyya*, *Amrad Safrawiyya*, *Amrad Balghamiyya*, *Amrad Sawdawiyya*. Here impurity means alteration in quality of air like in summer season air becomes hot due to falling of sun rays perpendicular to earth and it affects human body by favouring increased production and exuberance of *Khilt Safra* resulting in *Safrawi Amrad* (bilious diseases)<sup>7</sup>.

\*Corresponding author: Sana Kausar

Department of Kulliyate Tib, National Institute of Unani Medicine, Bangalore, 560091

**Akhlat Arba'a (four humors)** Human body composed of three basic components - solid, liquid and gas. The liquid part of the body collectively called as *Akhlat*. The concept of *Akhlat Arba'a*; firstly introduced by Hippocrates (BC 460-370) in context of human physiology. Hippocrates (BC 460-370) classified body fluid on the basis of colour i.e. *Khilt Dam*(blood), *Khilt Balgham* (phlegm), *Khilt Safra* (yellow bile), *Khilt Sawda* (black bile)<sup>11</sup>. According to Ibn Sina (Avicenna), *Akhlat* are moist and fluid substance of the body which are produced after first transformation of the food<sup>1</sup>. Each *Khilt* has its own specific quality and quantity. A right proportion of *Akhlat* in terms of their quantity and quality helps in maintaining health. Any disturbance in proportion of *Akhlat* in terms of their quantity and quality, results in various diseases<sup>2-11</sup>. One of the important reasons of disturbance in proportion of *Akhlat* or dominance of one *Khilt* over other is seasonal variation.

It is necessary to know the relation of air and *Ruh* in understanding of seasonal impact on *Akhlat*. As Masihi said that *Ruh* (Pneuma) is made up from inhaled air<sup>3</sup>. When air reaches heart, is transformed into *Ruh* and carried to each and every cell of the body along with blood<sup>8</sup>. Ibn Sina (Avicenna) said that peripheral air is not only a constituent of our body but also constituent of *Ruh*. *Ruh* transport the *Quwa* to all parts of the body.<sup>1</sup>

According to Shaikh *Ruh* is one which is produced in heart, at this stage it is called *Ruh Haywani*. When *Ruh Haywani* reaches the brain, it achieves a specific temperament and called *Ruh Nafsani*, and when *Ruh Nafsani* reaches the liver, it achieves another specific temperament called *Ruh Tabi'i*. *Ruh Tabi'i* helps in accomplishment of functions of *Quwa Tabi'iyya*<sup>10,12</sup>. *Ruh Tabi'i* does the work for providing *Badal Ma Tahallul* to the body by producing *Akhlat* from food<sup>12</sup>. So, it can be said that if quality of air is altered in any season it will alter the *Akhlat*.

#### **Fasl-i-Rabi (spring season)**

The temperament of this season is *Har-Ratab* (hot and moist)<sup>3,5,6,7</sup>. The reason of the hotness is position of sun as it started coming in a straight line from earth and the reason of its moistness is preceding season's moistness i.e. winter that has not dissolved yet<sup>7</sup>. Whereas, some physician considered its *Mu'tadil Mizaj* (moderate temperament)<sup>7</sup>. That means moderate in hotness, coldness, dryness and moistness in respect of body. In fact, this season is neither too hot nor too cold. This season is considered best for human body. As it maintains health by maintaining innate heat (*hararate ghariziyya*) which executes body functions. Temperament of this season is most closely similar to temperament of human body<sup>9</sup>.

This season favours the production of *Khilt Dam*(blood). Being *Har-Ratab* the air in this season draws the blood towards the periphery and makes the body colour reddish. However, it does not dissolve the blood because of its moderate hotness<sup>6</sup>. However, in this season those *Akhlat* comes into circulation which had been accumulated in the body due to coldness of previous season. This is the reason that many chronic diseases get aggravated in this season. For example: *Malankhuliya* (Melancholia). Also, these *Akhlat* tend to flow towards weak organs causing various diseases. Other diseases like *Ru'af* (epistaxis), *Zahir* (dysentery), *Khunaq* (diphtheria), *Wajaal-Mafasil* (rheumatoid arthritis), *faliq*

(paralysis), *Dubayla* (abscesses) etc. commonly occur in this season<sup>6,10</sup>.

Increased physical and mental activities as well as excess intake of hot and moist diets like egg, meat, liver, olive spinach, sweet potato, wheat, yolk, turnip, etc. in this season causes dissolution of *latif ajza* (light constituents) of *Akhlat* which may cause various disease. So, diseases in this season may be produced by increase fluidity of *Akhlat*. An important thing here is that unlike air of other seasons, the air of *Fasl-i-Rabi* does not produce disease causing matter<sup>11</sup>. It is because air of *Fasl-i-Rabi* is slightly *Har*, and it is a property of *Hararat* to produce fluidity in coagulated matter<sup>11</sup>. So, air of other seasons cause disease due to production of disease-causing matter, while air of *Fasl-i-Rabi* causes diseases due to its natural action only i.e. increasing fluidity.

#### **Fasl-i-Sayf (summer season)**

The temperament of this season is *Har-Yabis* (Hot Dry)<sup>6,7,10</sup>. This season is favourable for individuals having *Barid al Mizaj* (cold temperament)<sup>6</sup>. The extreme hotness of air in summer season dries out all the moisture from air. The cause of hotness is the position of sun rays which falls directly on the earth<sup>6,7</sup>.

Being hot and dry, this season is suitable for production of *Khilt Safra* (yellow bile) and *Safrawi Amrad* (bilious diseases)<sup>10</sup>. However, production of sanguine and phlegm decreases in summer season due to opposite temperament<sup>6</sup>. In the end of this season production of *Khilt Sawda* (black bile) increases<sup>6</sup>. The reason is dissolution of *latif* (light) constituents of matter by excessive hotness, leaving behind thick and viscid constituents' only<sup>4</sup>.

Increased dissolution causes weakness of faculties resulting in alteration in functions of an organ which is considered as a state of disease. Being light in composition, dissolution of sanguine and phlegm occurs easily by hot air which results in pale skin<sup>6</sup>.

In this season quality and quantity of bile gets altered. This alteration produces *Safrawi Amrad* (bilious diseases). Diseases commonly occurring in summer season are *Humma al-Ghibb* (bilious fever), *Humma Mutbiqa* (continuous fever), *Humma al-Ghibb Muharriqa*, *Humma Safrawia* (bilious fever), *Sarsam Safrawi* (bilious meningitis), *Ishal Kabidi Safrawi* (bilious diarrhoea), *Ishal Mi'wi Safrawi* (bilious enterorrhoea), *Istisqa* (ascites), *Ramad* (acute conjunctivitis), *Judari* (small pox), *Hasba* (measles) etc<sup>1,3</sup>.

Causes of alteration and exuberance of *Khilt Safra* (yellow bile) in this season are as follows-

- 1) Having similar temperament like *Safra*, this season favors the excess production of the same<sup>4</sup>.
- 2) Excessive hotness of this season may burn out the *Safra* resulting in production of *Safra Zanjariyya* which is considered as a worst form of *Safra*<sup>4</sup>.
- 3) Most of the diets i.e. available as well as consumed in this season are hot and dry like fried meet, beans, brinjal, bitter guard, onion, walnut, stone apple, tea, gram, garlic etc. that favour its production as well as its alteration<sup>4</sup>.

So, in this way here materialistic and naturalistic both types of causes are responsible for the exuberance and alteration of *Khilt Safra* which ultimately produce bilious diseases<sup>6</sup>. Extreme heat of summer season dries out the moisture of air, if it remains moist then it is harmful. The occurrence of disease

is because putrefaction occurs easily. E.g. This happen mostly when it's raining in the summer season, chronic diseases are common and not cured easily. Changes of *Quruh al Aqla* is one of best example of this type of condition<sup>3</sup>.

#### **Fasl-i-Kharif (autumn season)**

The temperament of this season is *Barid-Yabis (Cold and Dry)*<sup>7, 10</sup>, which is opposite to the temperament of *Khilt Dam* i.e. *Har-Ratab*<sup>10</sup>. Hence it favours the production of *Khilt Sawda*. The temperament of this season is considered moderate in terms of hotness and coldness, but not in dryness and moistness<sup>7</sup>. It is mostly dry due to hotness of preceding summer season<sup>6,7</sup>. This season is not good for health because it causes weakness of faculties due to preceding summer season<sup>9, 10</sup>. In summer *Quwa* and *Arwah* gets dissolute. And other reason is extreme variation between temperatures of air during day and night. At night air becomes very cold which prevents dissolution of matter by *Tabiyat* because coldness causes matters to accumulate in the body<sup>11</sup>. Similarly, during day air becomes very hot and this hotness draws innate heat towards periphery of the body and thus prevents it from performing its functions e.g. digestion and dissolution of waste material.

Having temperament contrary to *Arwah* and *Dam* this season is considered as worst of all seasons. It favours occurrence of many diseases by producing bad quality of humours. Due to the utilisation of, leftover residue is then burn out. Common diseases of this season are *Nar Farsi* (eczema), *Quba* (ringworm), *Saratan* (cancer), *Taqtir al Bawl* (dribbling of urine), *Sue Hazm* (indigestion),<sup>6,7</sup> *Maniya* (mania) *Ila'us Sakta* (apoplexy), *Junun* (insanity)etc<sup>6</sup>.

Causes of production of *Khilt Sawda* (black bile) are<sup>4</sup>-

1. Being cold dry this season favours the production of black bile.
2. Coldness of morning and night push the matter inside and hotness of noon pull the matter outside. In this way a type of rotatory movement continues to occurs in matter during whole season. So, the *kathafat* and *hiddat* exaggerated and burn out the matter and form black bile.
3. Dissolution of light constituents in summer, leftover residue is then burn out and freezes by coldness of this season and becomes black bile.
4. Intake of fruits like orange, plums, banana, figs which alter the humours.

#### **Fasl-i-Shita (winter season)**

The temperament of this season is *Barid Ratab* (Cold and Moist)<sup>7</sup>. Hence it favours the production of *Khilt Balgham* (phlegm). This season is considered good for digestion. Because of coldness of air in this season, pneuma and blood are directed towards the core of the body and their dissolution also decreases resulting in strengthening of pneuma. Such pneuma favours digestion and assimilation processes<sup>6</sup>. This season produces mostly *Balghami Amrad* (phlegmatic diseases) due to excessive production and low dissolution of *Khilt Balgham* (phlegm). e.g. *Nazla-o-Zukaam* (coryza and catarrh), *Dhat-al-janb* (pleurisy), *Dhat-al-Ria* (pneumonia), *Shaqiqqa Barida* (chronic migraine), *Sar* (epilepsy), etc. This season favours occurrence of chronic diseases due to increases of phlegm inside the body. The reasons for excessive production of phlegm are as follows<sup>6</sup>-

1. *Barid Ratab* temperament<sup>7</sup>.
2. Dominancy of *Burudat* in the body.
3. Formation of raw and viscous *Khilt*<sup>6</sup>.
4. Accumulation of *Akhlat*<sup>6</sup>.
5. Lack of physical activity<sup>6</sup>.
6. Excessive sleep<sup>6</sup>.

Use of cold and moist diet specially *Ghaliz ghiza* e.g. turnip, sweet potato, tapioca sago, barely, pomegranate, curd, lemon, pumpkin, pineapple, watermelon, thick milk, paneer, roasted meat, big fishes, rice, pudding.

Along with these reasons winter season is made more favourable for the production of phlegmatic humour.

### **CONCLUSION**

In USM, effects and variations of seasons on human body are described long ago. After surveying the literature, it can be concluded that we can prevent the human body from various diseases resulting from seasonal variations. Since every season has a particular quality by which it generates and alters specific madda in the body. So, we can maintain the health according to four seasons by adopting their respective preventive measures. Simply change in diet, physical activities and inhabitation are sufficient to combat the bad effect of season on the human body. The few bodies are susceptible to season specific diseases, hence by knowing the target population preventive measures can be suggested and administrated to them and in this way this knowledge may prove very effective for maintenance of community health.

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