

UNDERSTANDING HYPERTENSION ACCORDING TO UNANI PROSPECTIVE – AN
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ABSTRACT

Introduction: Hypertension is one of the major risk factor of cardiovascular diseases. Nowadays, considered as a global public health issue and, in recent decades it has shown a growing trend due to sedentary life style. **Objectives:** Purpose of this study was to understand the concept of hypertension in term of classical Unānī medical books and to find a disease that has maximally coincided with the symptoms of hypertension. **Materials and Methods:** In this study, reliable sources of Unānī System of Medicine are the ancient literatures of Unānī System of Medicine and some reliable resources of conventional medicine such as Harrison's principles of internal medicine and databases such as Pub Med, Scopus, were probed, base on keywords to find a disease that had the most overlapping symptoms with hypertension. By taking notes from the relevant materials, the extracted texts were compared and analyzed. **Results:** Findings showed that the hypertension mostly overlaps with *Imtilā'* (congestion). Although this is not a complete overlap and there are also other causes and reasons including *Sū'-i-Mizāj Yābis* (dry dys-temperament) of vessel wall which causes *Ṣalābat-i-Shīryān* (atherosclerosis), *Sū'-i-Mizāj Harr* (hot dys-temperament) of heart or damages to other organs like liver, kidney and nervous system that could also lead to hypertension according to Unānī System of Medicine. **Conclusions:** We can approach towards hypertension with recommendations for reducing *Imtilā'* (Congestion) when we are dealing with hypertension that most probable similar to *Imtilā'*. Therefore, if patient is suffering from another type of hypertension like *Sū'-i-Mizāj Yābis* (dry dys-temperament) of vessel wall, it surely requires another treatment approach for reducing vessel wall dryness.

KEYWORDS: Hypertension; *Imtilā'*; *Fasād-i-Akhlāt*; Unānī System of Medicine; *Sū'-i-Mizāj*; *Ṣalābat-i-Shīryān*; Atherosclerosis.

INTRODUCTION

Hypertension is the commonest cardiovascular disorder, posing the a major public health problem. It is one of the major risk factors for cardiovascular mortality, which accounts for 20-50 percent of all deaths.^[1] Globally, nearly one billion people have high blood pressure (hypertension); of these, two-thirds are in developing countries. Hypertension is one of the most important causes of premature death worldwide and the problem is growing; in 2025, an estimated 1.56 billion adults will be living with hypertension. Hypertension kills nearly 8 million people every year, worldwide and nearly 1.5 million people each year in the South-East Asia (SEA) Region. Approximately one-third of the adult population in the SEA Region has high blood pressure.^[2]

Hypertension, defined as a systolic blood pressure ≥ 140 mmHg and/or a diastolic pressure ≥ 90 mmHg, is one

of the most common chronic diseases.^[3] In 2011 to 2014, the age-adjusted prevalence of hypertension was 45.0% and 46.3% among NH black males and females. Using data from the National Vital Statistics System, in 2015, there were 78862 deaths primarily attributable to HBP. In 2015.^[4] According to the ICMR survey in india prevalence of hypertension in urban population is higher as compare the rural population.^[5] According to the Framingham study, hypertensive patients are four times more prone to have cerebro-vascular accidents, and a six fold steep in CHF when compared to the normo-tensive subjects. It is considered as the most easily recognized and treatable risk factor for stroke, myocardial infarction, heart failure, peripheral vascular disease, atrial fibrillation, and end-stage kidney disease.^[6] In the present times, life has been made easy for man with modernization every step of the way, but he has also paid for it by becoming prey to many lifestyle diseases. The

diseases occur due to his faulty life style and stressful psychological conditions. These factors affect one's mind and homeostasis of the body by several psychosomatic mechanisms and lead to many lifestyle diseases such as diabetes and hypertension.^[2] Hypertension does not cause any symptoms until it causes complications such as heart attack, stroke and coronary heart diseases (CHD) plays a role of silent killer in the body because most suffers (85%) are asymptomatic. In 95% of cases of hypertension, the exact underlying causes are still unknown but are believed to be due to genetic and environmental factors.^[7]

OBJECTIVE

Hypertension is not mentioned with the same expression or its equivalents in the classical Unānī medical texts. The purpose of this study is to understand the concept of hypertension in the classical Unānī medical books and to find a disease that has maximally coincided with the

symptoms of hypertension. Search the equivalent disease might suggest a better plan of action for preventing, treating and reducing the complications of hypertension in the future.

MATERIAL AND METHODS

This study is mainly based on the Ancient Unānī textbooks from 9-18 AD centuries. These books were amongst the most renowned Unānī scholars. The books used in this work are listed in the Table No.1 and some reliable resources of conventional medicine such as Harrison's principles of internal medicine and databases such as Pub Med, Scopus, were probed, base on keywords to find a disease that had the most overlapping symptoms with hypertension. By taking notes from the relevant materials, the extracted texts were compared and analyzed.

Table No.1.

Manuscript	Author	Authoring date	Brief Description of the book
Firdaws al-Ḥikma fi'l Ṭibb. 2010	Abu'l Ḥasan 'Alī ibn Sahl Rabban Ṭabarī	8 th century AD	This is a single-volume book based on Ṭabarī's medical notes. In Latin this book is known as Paradise of wisdom. Disturbance in humour, temperament of heart, other information related to heart mentioned in this book.
Kitāb al-Manṣūrī (CCRUM) 1991	Abū Bakr Muḥammad ibn Zakariyyā Rāzī	10 th century AD	This is a single volume book based on Rāzī's medical notes. <i>Imtilā'</i> (congestion), disturbance in the temperament of humour and temperament of heart is mentioned in this book, which is mainly concerned with imbalance in humour both in quality and quantity.
Kitāb al-Murshid (Urdu translation by Mazahar al-Islām Nadvī) 1994	Abū Bakr Muḥammad ibn Zakariyyā Rāzī	10 th century AD	This is single-volume book based on Rāzī's medical notes. <i>Imtilā'</i> (congestion), disturbance in the quality and quantity of humour and the study of pulse is mentioned in this book .which is mainly concerned with imbalance in humour.
Al-Ḥāwī fi'l Ṭibb. Vol.6 (CCRUM) 1999	Abū Bakr Muḥammad ibn Zakariyyā Rāzī	10 th centuryAD	This is a multi-volume book based on Razi's medical notes. In Latin this book is known as <i>Continens Liber</i> and in English as the <i>Virtuous life</i> . <i>Imtilā'</i> (congestion) is mentioned in Sixth volume of this book, which is especially concerned with imbalance in humours..
Kāmil al-Ṣanā'a al-Tibbiyya Vol. 1,2. (Urdu translation by Ghulām Ḥasnayn Kintūrī). 2010	'Alī ibn 'Abbās al-Majūsī	10 th century AD	This is a multi-volume book based on Majūsī's medical notes. In Latin this book is known as <i>Liber Regius</i> . <i>Imtilā'</i> (congestion), disturbance in the temperament of humour and heart diseases is mentioned in second volume of this book, which is mainly concerned with imbalance in humour.

Al-Qānūn fi'l Tibb	Ibn Sīnā, al-Shaykh al-Ra'īs Abū 'Alī al-Ḥusayn ibn 'Abd Allāh	11 th century AD	This is a multi-volume book based on Ibn Sīnā's medical notes. In Latin this book is known as Alcanon and in English The Canon of Medicine. Cause of dilatation abnormal heat, humour, Sign of blockage and obstruction mentioned in second part.
The Canon of Medicine (English translation by Maẓhar Ḥ Shāh T pk) 2007	Ibn Sīnā, al-Shaykh al-Ra'īs Abū 'Alī al-Ḥusayn ibn 'Abd Allāh	11 th century AD	This is a multi-volume book based on Ibn Sīnā's medical notes. In Latin this book is known as Alcanon and in Arabic Al-Qānūn fi'l Tibb. Cause of dilatation abnormal heat, humour, Sign of blockage and obstruction mentioned in second part.
Kulliyāt-i-Qānūn Tarjuma-o-sharaḥ in Urdu by Ḥakīm Muḥammad Kabīr al-Dīn)	Ibn Sīnā, al-Shaykh al-Ra'īs Abū 'Alī al-Ḥusayn ibn 'Abd Allāh	11 th century AD	This is a two-volume book based on Ibn Sīnā's medical notes. Disturbance in humour quality and quantity, Temperament of heart, mentioned in this book
Dhakhīra Khawārizm Shāhī (Urdu translation by Ḥakīm Hādī Ḥusayn Khān) 2010	Sharaf al-Dīn Ismā'īl ibn Ḥusayn Jurjānī	12 th century AD	This is a multi-volume book based on Jurjānī's medical notes. Disturbance in temperament, some other information related to the heart mentioned in second volume, <i>Imtilā'</i> (congestion) in blood mentioned in sixth volume.
Kitāb al-Kulliyāt	Abu'l Walīd Muḥammad ibn Rushd	12 th century AD	This is a single-volume book based on Ibn Rushd's medical notes. Disturbance in humour quality and quantity, temperament of heart, mentioned in this book.
Kulliyāt-i-Nafīsī	Nafīs ibn 'Iwāḍ ibn Jamāl al-Dīn al-Mutaṭabbib al-Kirmānī	15 th century AD	This is a two volume book based on Nafīs's medical notes. Disturbance in humour quality and quantity, temperament of heart, mentioned in this book
Mīzān-i-Tibb (Urdu translation by Ḥakīm Muḥammad Kabīr al-Dīn) 2002	Ḥakīm Muḥammad Akbar Arzanī	17 th century AD	This is a single-volume book based on Arzanī's medical notes. Disturbance in humour, Temperament of heart, Other information relate of heart mentioned in this book
Iksīr-i-A'zam (Urdu translation by Ḥakīm Muḥammad Kabīr al-Dīn) 2011	Ḥakīm Muḥammad A'zam Khān	19 th century AD	This is a single-volume book based on A'zam's medical notes. Disturbance in temperament, some other information related to the heart and <i>Imtilā'</i> (congestion) in blood mentioned in this book.
Jāmi'al-Ḥikma 2011	Ḥakīm Muḥammad Ḥasan Qarshī	20 th century AD	This is a single-volume book based on Ḥakīm Ḥasan Qarshī's medical notes. Disturbance in humour, Temperament of heart, Other information relate of heart mentioned in this book.

RESULTS

Definition and Symptoms of Hypertension in Terms of Conventional Medicine^[6,8]

Blood pressure is the force of blood against the walls of arteries. According to the internal medicine resources, HTN has no clinical manifestations in the majority of

cases to the extent that has been named as the "Silent Killer" If clinical symptoms led the patient to consult with a doctor, these symptoms generally fall into three categories:

1. Symptoms of rising of blood pressure (occipital headache, dizziness, palpitation, etc.)

2. Symptoms due to vascular diseases (haematuria, vision problem, dyspnea, etc.)
3. Symptoms of the underlying diseases causing secondary HTN.^[8]

Previous Unānī Theories

Hypertension is not as such described in the literatures of Unānī System of Medicine. As per scholar there are *Akhlāṭ Arba'a* (Four humors) *Dam* (Sanguine), *Balgham* (phlegm), *Ṣafrā'* (yellow bile) and *Sawdā'* (black bile). Disturbance in the function of *Huḍūm Arba'a* (four stages of digestion), which hampered the production of *Akhlāṭ Arba'a* (Four humors). There is any qualitative and quantitative derangement in these humors cause the diseases.^[9-11]

Concept of blood pressure in Unānī Literatures Comparisons of Hypertension with the Diseases present in Ancient Unānī Literatures.

Formation of Proper and Improper *Akhlāṭ* (Humours) in the Body: According to the principles of Unānī System of Medicine, the eaten food passes through the various stages of digestion before reaching to the organs. *Ibn Sīnā* (*Avicenna*) and most scholars are of the opinion that digestion is a continuous process that occurs from mouth to organs; therefore, it is called *Huḍūm Arba'a*. This can be divided into four successive stages of *Haḍm Me'dī* (gastric digestion), *Haḍm Kabidī* (hepatic digestion), *Haḍm 'Urūqī* (vascular digestion), and *Haḍm 'Uḍwī* (organic digestions). At each stage of digestion, the eaten food changes in to different form which is become more suitable for the use by the body. In each digestion process, the following actions occur:

In **gastric digestion**, some aspects and features of foodstuffs are altered and suitable absorbent materials called "Chilos" are absorbed into the liver via the mesenteric artery for further digestion. Feces are considered as the waste material of this digestion. In **hepatic digestion**, "Chilos" changed into "Chymus" which composed of four humours (blood, phlegm, yellow bile, and black bile) and flows into the vessels. Here, the waste matter is urine.

In **vascular digestion**, the food situation gets closer to the organ form and in **organic digestion**; the food is completely similar to the target organ tissue. The waste material is sweat.^[9-12] Therefore, humors are the final product of liver digestion and in order to have good quality, two things must occur:

- a) Normal function of the stomach causing production of the appropriate gastric emulsion in order to form high quality humors in the liver.
- b) Normal functioning of the liver for proper digestion and absorption.^[9,13]

Out-comes of *Akhlāṭ Khām* (Improper Humors) Formation:

If the improper foods enter into the stomach, and if the digestive power of gastrointestinal tract acts properly,

this food would hurt neither the stomach nor its adjacent organs. In this case, the stomach digests the rotten foods and produces a spoiled sap (gastric digestion) that would enter into second step of digestion (hepatic digestion); after entering the liver, it produces low quality blood and improper humors that would penetrate into the vessels and organs of body. Following penetration into the vessels and body organs, two states occur:

- a) If the body nature and *Quwwat Dāfi'a* (expulsive faculty) of organs were strong, waste materials and bad humors would be disposed and sent beneath the skin that might lead to the various skin problems such as boils, pimples, and skin eruptions etc.
- b) If the expulsive force of an organ was weak and unable to repel the bad humors, these humors would cause disease in the respective organ. For example, existence of unrighteous humors, blood, and accumulation of waste products in the head and their increase in the arteries, might cause sanguine stroke and nasal bleeding.^[11,12] From the viewpoint of Unānī System of Medicine, in the case of over indulgence in eating and gastric *Imtilā'*, stomach cannot properly digest the food. The improper digested food enters into the arteries and remains undigested and raw in vessels. Considering that there is still digestion in the vessels, although much weaker in comparison to the gastric digestion, undigested food could not be fully digested in vessels, as well. Penetration of undigested and raw materials into vessels causes symptoms such as feeling of heaviness, lethargy, body stretching, and yawning in patient. In severe cases, excessive fullness of the blood vessels with raw materials can cause fatal side effects such as arterial wall stretching or tearing.^[9,15,16,17,18]

According to the above mentioned concept. Term "Hypertension" or "blood pressure" has not been as such mentioned in the classical Unānī text; although almost all the Unānī scholars were familiar with its clinical manifestations, as the detailed description of organs of circulation has been described by *Ibn Naḥs*.^[19] It is essential first to understand the physiological aspect of blood pressure in Unānī which is fundamentally based on the theory of *Akhlāṭ Arba'a* (Four humours), there is qualitative and quantitative imbalance.^[9,10,13,15,20] The blood first ejected out of the heart, is than distributed to all parts and organs of the body, and thereafter, is returned back to the heart through the blood vessels.^[9,10] The functions of heart elaborated by Aristotle have been summarily refuted by *Ibn Naḥs*. According to *Rāzī* (*Razes*), the arteries arise from the left ventricle and serve to propagate the pure air in the entire body.^[15] According to the most of the renowned Unānī physicians, Hypertension is similar to the concept of "*Imtilā'*, *Imtilā' al'Urūq* means vessels would be over filled intensely, till they suffer and become stretched. Perhaps the distended vessel may rupture. In general, habitual dietary excess will result in *Amrāq Imtilā' iyya* literally; *Imtilā'* means fullness of the body with fluids. Technically, *Imtilā'* means accumulation of normal or

abnormal fluids in the body. In the past, physicians used the term of *Imtilā'* or congestion to describe a condition in which fluids accumulated in the body producing certain symptoms.^[9,13,16,20]

Rāzī, Ibn Sīnā, Majūsī and other Unānī scholars also described the *Imtilā'* in this way that excess of food, alcohol, and rest in addition to lack of exercise would result in accumulation of waste products in the body, whether *Maḥmūd* (beneficial) or *Ghayr Maḥmūd* (Non-beneficial), both would be toxic for the body. The accumulation of these waste products might lead to increase in blood volume, vessels wall tension, and vascular pressure.^[9,10,15,16]

***Imtilā'* is of two types:** *Imtilā' bi ḥasb al-Aw'iyya* (increase cardiac output) and *Imtilā' bi ḥasb al-Quwā* (repletion in regard to vitality).

***Imtilā' bi ḥasb al-Aw'iyya* (increase cardiac output):** The increases venous return, also increases cardiac output can be considered as *Imtilā' bi ḥasb al-Aw'iyya*. According to Unānī and modern medicine, the increase venous return (increase cardiac output) is same as *Imtilā' bi ḥasb al-Aw'iyya* (increase cardiac output).^[16,20]

***Imtilā' bi ḥasb al-Quwā* (repletion in regard to vitality):** It is also known as *Imtilā' bi ḥasb al-Kayfiyya*; this type of *Imtilā'* occurs not only due to excess quantity of humors but also the quality of *Akhlāt* is deranged. Humors produced in this condition also deranged the digestion and coction qualitatively and quantitatively. Individuals suffering from the *Imtilā' bi ḥasb al-Quwā* are more prone to have infectious diseases.^[16,18]

Lack of complete overlap of known symptoms of hypertension with *Imtilā'* confirms that increased blood pressure can occur due to other causes and reasons as well; therefore, these symptoms will not completely match. Hence, it does not make sense to consider hypertension and *Imtilā'* as exact synonymous, as it might lead to ignore other causes of hypertension including *Su'-i-Mizāj Yābis* (dry dys-temperament) of vessel wall caused by descending of *Ghayr Ṭaba'ī Sawdā'* (abnormal black bile) to vessel wall, which seems to be equivalent to atherosclerosis, *Su'-i-Mizāj Ḥārr* (hot dys-temperament) of the heart, or illnesses associated with organs such as nervous system, liver and kidneys.^[9,10,14,18]

Etio-Pathogenesis

Mainly due to the imbalance of *Huḍūm Arba'a* (Four stages of digestion) **Rāzī** said that *Imtilā'* is caused by the excessive intake of food, alcohol and avoidance of physical activity and bathing (wet and steam bath). It can

further be the outcome of the subject are physical inactivity, conditions like excessive rest and repose lead to accumulation of *Fuḍūl* (metabolic products). Environmental factors which causes hypertension like *Nafsānī Umūr* (anger, stress and anxiety), sedentary life style which causes obesity and obesity is more important risk factor of hypertension. Moreover the ancient Unānī scholars are master in this field and developed their own skill. According to **Majūsī**, due to the weakness in the arterial wall, contraction and relaxation could not perform properly and thus it causes *Imtilā'* because there is stagnation of *Akhlāt Khāmma* (abnormal humours) inside the arteries.^[9-10] He further says that due to formation of abnormal humor quality of humor is disturb and temperament also disturb like *Muḥtariq Sawdā'* which leads to *Yubūsat*, which causes *Ṣalābat* (hardness) in vessels walls, which hampered their normal functioning like contraction and relaxation. If *Sawdā'* is putrefied, and it will increase in quantity than it will produce more hardening in the vessels wall, which also raise the pressure inside the wall, because this is *Muḥtariq Sawdā'* and it is very much *Yābis* in *Mizāj*.^[10] *Yubūsat* increases the *Quwwat Māsika* (power of retention) it causes *Imtilā' al-'Urūq* due to the dominance of the *Yābis Mizāj* (dry temperament) means *Su'-i-Mizāj Yābis* (dry dys-temperament) of the body. Closing of canal is either increases of *Quwwat Māsika* or weakness of the *Quwwat Dāfi'a* (power of evacuation or expulsion). *Nafsānī Af'āl* (psychological factors) like anger, anxiety and tension also hampered the body temperament excess *Ḥarārat* and *Yubūsat* (hotness and dryness) in the body.^[9-10,15] It causes *Nabḍ Ṣulb* (hardness in pulse), *Ṣalābat* or *Taşallub* (sclerosis) in the *Nabḍ* (pulse) is either dryness of vessel wall or intense tension or severe cold which is capable to produce rigidity in vessel wall, because dryness eliminates moisture which helps in expansion of arteries.^[21] This is seen in old age and in arteriosclerosis. In this pulse the elasticity of the wall is decreased, which eventually raises the peripheral resistance causing hypertension.^[10] In the light of above mentioned description hardening in the vessel walls found in hypertension because, it hampered the normal functioning contraction and relaxation of the vessel wall. Increase in the temperament of *Akhlāt* (humours) *Ḥarārat*, *Burūdat*, *Yubūsat* and *Quwwat Māsika* beyond their *Ṭaba'ī* (normal) limits, it causes hardening of arterial wall. Every morbid matter that is converted into *Muḥtariq Sawdā'* and putrefied *Sawdā'* leads to *Yubūsat*. **Rabban Ṭabarī** said that normally the *Mizāj* of vessels is *Raṭab*. But in hypertension the *Mizāj* of vessels changes from *Raṭab* to *Yābis* and *Yābis Mizāj* is not the original *Mizāj* of the vessels, hence the vessels acquired the *Su'-i-Mizāj Yābis* i.e. it causes the disease like hypertension.^[9,10,18]

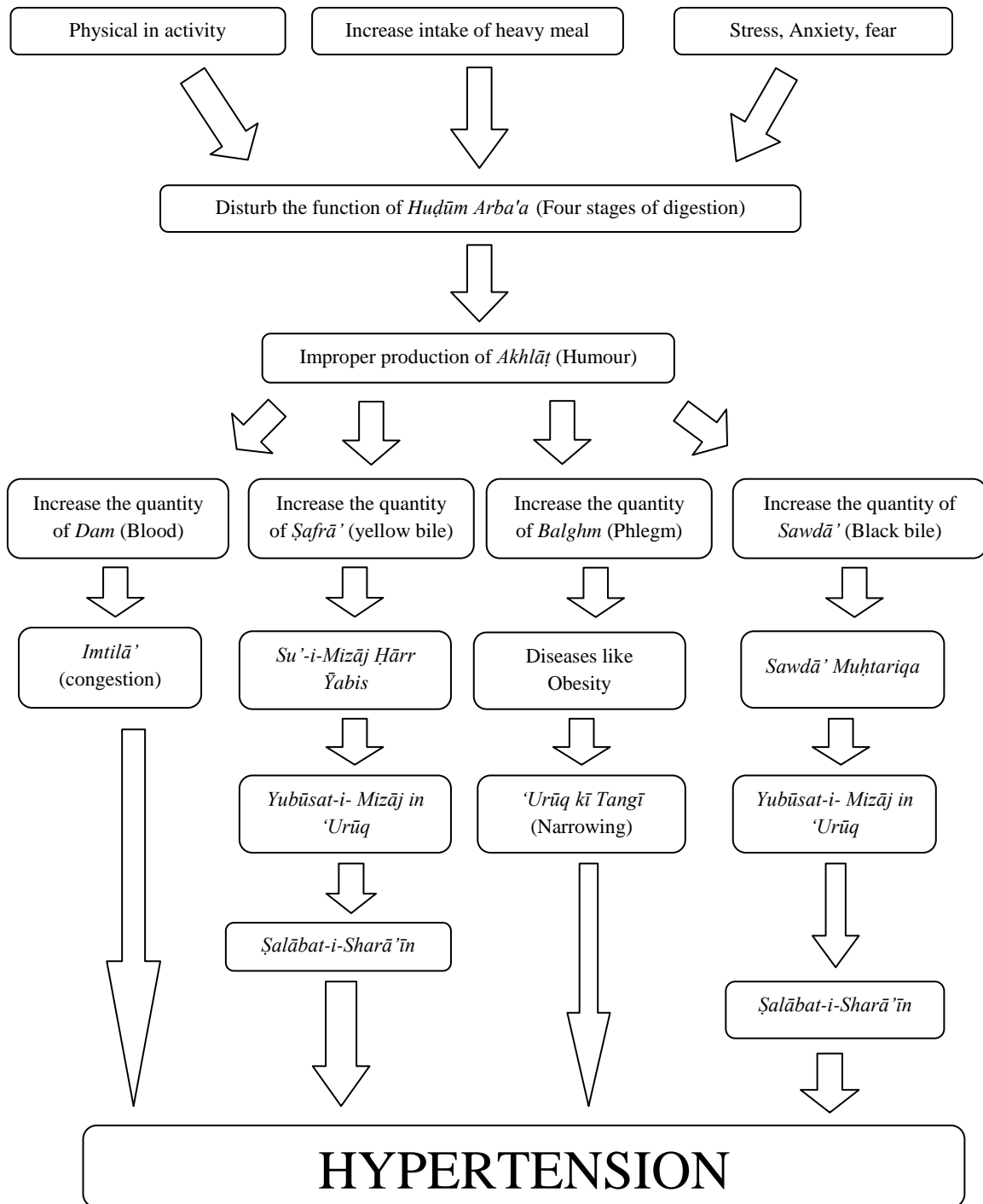


Figure No. 1: Etio-Pathogenesis.

Symptom of Hypertension

Therefore, we compared the various signs and symptoms of *Imtilā'* with hypertension in [Table No.2].

Table No. 2: Maximally the sign and symptoms of Hypertension similar to *Imtilā'* (congestion).

Hypertension ^[6,7,8]	<i>Imtilā'</i> (congestion) ^[15-18]
Early morning occipital headaches	Heaviness in the head and headache
Easy fatigability, muscle weakness	Fatigue, lethargy and feeling of heaviness
-	Exhaustion, flaccidity of the body organs and loose motions
Blurred vision due to retinal lesions (Vision problems)	Blurred vision
Aortic dissection or aneurysm leak	Prominent, distended and tense blood vessels of brain which increased risk of rupture

Transient ischemic attack (Ischemic and hemorrhagic strokes are common complications of hypertension)	Sanguinary stroke
Flushing is one of the neurogenic hypertension or pheochromocytoma Symptoms	General redness
Epistaxis	Nasal bleeding
Change in skin elastic fibers and vascular structure (Rarefaction phenomenon)	Skin tension
Erratic sleep has been cited in evidence of secondary hypertension	Dreams with the subject of heaviness in such a way that person dreams of inability to move, stand up, speak, or bearing a heavy burden.
-	<i>Nabḍ Mumtalī aur Nabḍ 'Azīm</i> (Hypervolemia pulse and Fullness of Pulse).
Palpitation	Palpitation
Dyspnea	Breathlessness
Impotence	-

Complications

Unānī scholars said that, when the composition of blood altered (deranged blood) it flows toward nose and rectum. Severe condition of *Imtilā'* may be responsible for stroke, renal damage, hemorrhage, apoplexy and sudden death.^[9,13,16]

Therapeutic Principals in Unani System of Medicine

Unānī System of Medicine believes in holistic approach to the prevention and treatment of diseases. It covers physical, mental and spiritual dimensions of an individual's health. The temperamental / humoral theory provides a comprehensive understanding of the risk factors, pathological processes and therapeutic interventions for the effective management and treatment of hypertension.

'Ilāj bi'l Ghidhā' (Dieto-therapy)

'Ilāj bi'l Ghidhā' has play an important role in prevention of hypertension rather than its control. In Unānī System of Medicine, there are so many dietary recommendations that are very beneficial for prevention of hypertension use *Taqīl al-Ghidhā'* and *Ghidhā' Mu'arrigh* which also reduce the common risk factors like hyperlipidemia and atherosclerosis, which better controlled by dietary measures.^{9-10,15} Diets containing the high amount of potassium may slightly lower the blood pressure. Some Unānī drugs which are anti-hyperlipidaemia and anxiolytic such as *Kalavnjī* (*Nigela sativa*), *Lehsun* (*Allium sativum*), *Zira Siyāh* (*Carum carvi*), *Kishnīz* (*Coriandarum sativum*), *Piyāz* (*Allium cepa*), and *Gājar* (*Daucas carota*) are also beneficial in hypertension. These drugs are mainly used in diet.^[14,20-21]

Jālīnūs suggested that four conditions should be kept in mind while making eating or drinking habits:^[17]

- ✓ Time of the food
- ✓ Type of the food
- ✓ Quantity of the food
- ✓ *Mizāj* of the food

'Ilāj bi'l Tadbīr (Regimenal Therapy)

Most of the Unānī physicians told that to prevent any disease conditions first to improve the disturbance which occurs in *Asbāb Sitta Darūriyya* (six essential factors of life). By the help of certain *Tadābīr* (regimens). *Ibn Sīnā* described theses type of *Tadābīr* for prevention of diseases in his book *Al-Qānūn fi'l Ṭibb*.^[13-18]

The bellow mentioned mode of treatment is very effective in prevention and control of *Imtilā'* (hypertension). Take fresh air, use fresh vegetables and fruits, use liquid diets, having adequate sleep, increased physical activity, reduce mental tension and anxiety may reduce the clinical implications of *Imtilā'*. Also there are so many important Regimenal therapies for the management of *Imtilā'* like *Dalk* (massage), *Ḥammām* (steam bath), *Riyāḍat* (exercise), *Riyāḍat* is the most efficient mode to prevent the accumulation of elements of *Imtilā'*. Other therapies like *Faṣḍ* (venesection), *Istifrāgh bi'l Faṣḍ*, *Hijāma bi'l Sharṭ* (wet cupping). *Hijāma* will relieve the diseases of *Imtilā'* from the body and *Irsāl-i-'Alaq* (leeching), *Ishāl* (purgation), *Ta'riq* (diaphoresis) also very useful in the prevention and control of hypertension.^[9-10,18]

'Ilāj bi'l Dawā' (Pharmacotherapy)

There are Several single drugs and compound formulations are in Unānī System of Medicine which have been used in the management of *Imtilā'*, which may also useful in hypertension as well. Drugs having the Activity like *Mulaṭṭifāt* (resolvent), *Mudirr* (diuretic), *Mufattiḥ* (vasodilator), *Mubarrid* (refrigerant), *Munawwim* (hypnotic), *Musakkin* (sedative), *Mufarriḥ* (exhilarant).

The following drugs are frequently used in the management of the disease:

Mulaṭṭif (demulcent): *Ābresham* (*Bombyx mori*), *Arjun* (*Terminalia arjuna* Linn.).

Mudirr (diuretic): *Tukhm-i-Kharpaza* (*Cucumis milo* Linn.), *Tukhm-i-Khayārayn* (*Cucumis sativa*),

Parshiya'vshān (*Adiantum capillus*), *Banādiq al-Buzūr*, *Ḥabb Mudirr*, *Sharbat Buzūrī Mu'tadil*.

Musakkin (sedative): *Afyūn* (*Papaver somniferum*), *Sankhāholī* (*Evolvulus alsinoides* Linn.), *Asrol* (*Rauwolfia serpentina*), *Tukhm-i-Kāhū* (*Lactuca sativa* Linn.), *Gul-i-Nilofar* (*Nymphaea lotus*).

Mufattiḥ (vasodilator): *Lehsun* (*Alium sativum* Linn.), *Chāl Arjun* (*Terminalia arjuna* Linn.).

Mufarriḥ (exhilarant): *Za'frān* (*Crocus sativus*), *Bādranjboya* (*Melissa officinalis*), *Ṣandal Safed* (*Santalum album*), *Marwārīd* (*Mytilus margaritifera*), *Ābresham* (*Bombyx mori*), *Mushk* (*Moschus moschiferous*), *Sankhāholī* (*Evolvulus alsinoides* Linn.).

Munawwim (hypnotic): *Iksīr-i-Shifā'*, *Roghan-i-Labūb Sab'a*, *Roghan-i-Khashkhāsh*, *Roghan-i-Kāhū*, *Roghan-i-Kaddū*.

Mubarriḍ (refrigerant): *Tukhm-i-Khurfa* (*Portulaca oleracea* Linn.), *Kishnīz* (*Coriandrum sativum* Linn.), *Tukhm-i-Kāhū* (*Lactuca sativa*), *Gul-i-Nilofar* (*Nymphaea lotus*).^[9-10,14,18,20,22-23] As they not only strengthen the heart but also act as a *Muqawwī-i-Rūḥ*. *Rūḥ* (pneuma) is the source of *Quwā* (power), and *Quwā* perform functions, so it should be strengthened.

CONCLUSION

From the above mentioned description, it is concluded that the Unānī System of Medicine are self-assured to treat hypertension with various methods of treatments based on the line of treatment of *Imtilā'*, *Su'-i-Mizāj Ḥārr*, *Su'-i-Mizāj Sawdāwī*. It mainly described in terms of *Imtilā'* and has been characterized to be a *Damwī* disorder. Its three important attributes are increased blood volume, expanded volume consistency and thickening and solidifying of vessels (atherosclerosis). Clinical presentations of *Imtilā'* are very much simulated those of hypertension which indicates that the Unānī scholars were very much familiar with the concept of hypertension. Thus we conclude that Unānī System of Medicine plays an important role in the prevention and treatment of hypertension with the utilization of various therapeutic methods mentioned in ancient Unānī literatures for the management of *Imtilā'*, *Su'-i-Mizāj Ḥārr*, *Su'-i-Mizāj Sawdāwī* at the same time.

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