



A Review on *Urooq Mafsuda* (Bloodletting Vessels) of Upper Limb in Unani System of Medicine

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Abstract

The Unani system of Medicine is a comprehensive medical system, meticulously dealing with the various states of health and disease. The therapeutics in Unani system of Medicine is described under the major headings of Regimenal therapy (Ilaj bi'l-Tadbeer), Dietotherapy (Ilaj bi'l-Ghidha), Pharmacotherapy (Ilaj bi'l-Dawa) and Surgery (Ilaj bi'l-Yad). In regimenal therapies there are various modes of treatment. Fasd (Venesection) is one of the oldest medical procedures that have been practiced since ancient times. It removes excess and abnormal humours through veins. Unani physicians described around 43 veins in the body for Fasd. Among them 12 veins were found in both upper limbs, 6 in each. These 6 veins of the upper limb were described with their specific anatomical position. The highlight of this review paper is to explore the modern anatomy of upper limb veins used for *Fasd* (venesection).

Keywords

Upper limb Veins, *Urooq Mafsuda*, *Fasd* (Venesection), Regimenal therapy, Ilaj bi'l-Tadbeer, Unani System of Medicine.

INTRODUCTION

The Unani system of Medicine is a comprehensive medical system, meticulously dealing with the various states of health and disease. The therapeutics in Unani system of Medicine is described under the major headings of Regimenal therapy (Ilaj bi'l-Tadbeer). Regimenal therapy (Ilaj-bil-tadbeer) is one of the most popular methods of

treatment, practiced by ancient Unani scholars since antiquity.¹

Literally "Tadbeer" is an Arabic word which means "regimen" or "systemic plan" whereas "Ilaj" means "therapy" or "treatment". Thus, "Ilaj-bil-tadbeer" means treatment through special regimen.¹

The Ilaj bit tadbeer means alteration or moderation in six essential factors (asabab sitta Zaruriya) in ailing condition that means use of such regimens that alter or moderate the quantity and quality or both of causative factor.^{2,3}

These regimens remove the Istifraagh-e-akhlaat-e-radiya (evacuation of morbid humors) from the body to attain equable temperament and improve the defence mechanism of the body.¹

These regimens include, Fasd (Venesection), Hijaama (Cupping), Ta'areeq (Sweating), Idraar-e-baul (Diauresis), Ishaal (Purgation), Hamam (Turkish bath), Dalak (Massage), Imala (Counter irritation), Kai (Cauterization), Ishaal (purging), Qai (Emesis), Riyaazat (Exercise), Ta'leeq (Leeching), Huqna (Enema), Inkebaab (Inhalation), Tanfees (Expectoration), etc.⁴

Fasd (Bloodletting/venesection):

Fasd (venesection) is one of the oldest medical techniques, having been practiced from very ancient times from peoples including the Egyptians, the Mesopotamians, and the Greeks. It is done for the withdrawal of blood from a patient's punctured vein to cure or prevent illness or disease. For bloodletting an incision is made to superficial veins only. The main purpose is to create a balance in the humours by removing excess in it.⁵

In recent years, Fasd is translated as venesection or phlebotomy, which means bloodletting by placing an incision on a vein. In Tibb-e-Unani, Fasd of arteries has also been described in some instances. However, since it carries more risks due to the higher pressure of blood in arteries, it is not advised as a routine procedure.⁶

Fasd (Venesection) is a regimen which completely evacuate the dominant humours along with blood from the body.⁷ That is why Fasd is given equal importance in the Unani system of medicine for the prevention of disease and restoration of health.⁸ It is most effective when the disease-causing matter is uniformly distributed in the whole body.⁹

In any disease, Fasd should be recommended before its stabilization. In general rule, the blood carrying noxious matter should always be diverted toward an adjacent organ, from upper to the lower part of the body. However, it should be ensured that the harmful matter does not divert toward a vital organ, if the disease is stabilized, then the harmful matter should not be excreted toward another organ and should be expelled from the affected organ itself.¹⁰

Ibn Sina stated that Fasd reduces the viscosity of blood so that they may further mix with the healthy blood. Therefore, it should be avoided in the initial stages of a disease. However, when these noxious matters gain a foothold in any of the organs, they

should be immediately expelled lest the disease may become stabilized and difficult to treat.⁹

The procedure of venesection was commonly used by Unani physicians, but the number of veins varies from physician to physician. According to *Daud Antaqi*, *Abu Al Qasim Zohrawi*, *Ibn Hubul Bagdadi*, *Ibn-e Sina*, *Ali Ibn Abbas Majusi*, *Abu Bakar Zakariya Raazi* & *Abu Sehal Masihi*, 43 veins, 41 veins, 34 veins, 33 veins, 32 veins, 29 veins & 20 veins recommended for venesection respectively.¹¹

In the upper limb total 12 *Urooq Mafsuda* are described by Unani physicians for Fasd (6 veins in each limb).

1) *Warid-i-Qifal* (Cephalic vein)

2) *Warid-i-Ak'hal* (Median cephalic vein).

3) *Warid-i-Bāsaliq* (Basilic vein).

4) *WaridHabl-uz-Zirā* (Brachial vein).

5) *Warid-i-Ibti* (Axillary vein).

6) *Warid-i-Usailim* (Salvatella vein).²

Anatomy of the veins of the hand described by Unani physician.

1) *Warid-i-Qifal* (Cephalic vein): The word *Qifal* is derived from Greek which means "margin of something" as it runs through the lateral margin of elbow joint. It is also known as *sararu* since it is used for venesection in the diseases of head & neck. *Qifal* lies laterally at the elbow joint, and it runs from lateral margin of elbow joint to the centre of wrist joint superficially. Author Al mukhtar fit-tib mentioned the upward course of the vein up to lateral side of shoulder joint.^{3,12,13,14,15}

In today's anatomy, anatomists describe the *Warid-i-Qifal* as cephalic vein. The cephalic vein begins as the continuation of lateral end of the dorsal venous arch. It crosses the roof of anatomical snuff box, ascends on the radial border of the forearm, continues upwards in front of elbow along the lateral border of biceps, pierces the deep mence they are absent in the fascia at the lower border of the pectoralis major, runs in order of the forearm, and cleft between the deltoid and pectoralis major (deltopectoral groove) up to the infraclavicular fossa, where it pierces the clavipectoral fascia and drains into the axillary vein.^{16,21,22}

2) *Warid-i-Ak'hal* (Median cephalic vein):

The name "*Ak'hal*" is derived from the Greek word "*Kahlaoos*," which indicates "a combined thing. As It originated from the fusion of *Bsaliq* and *Qifal*. In Persian, it is called *Hifat-e Andam*. According to different Unani physicians, the blood which runs through this vein is of Dark colour so it termed as *Ak'hal*. It is also known as *Nahar-ul-Badan* because it drains blood from the entire body. It is located slightly laterally to the middle of the wrist joint next to *Qifal*. The author of Kamil us Sana't, Majoosi

claims that it is exactly located in the middle of the wrist joint. It runs superficially at the wrist joint and deep in the hand.^{3,12,13,14, 15.}

In today's anatomy, we find that the *Warid-i-Ak'hal* mentioned by Unani physicians is named as median cubital vein. It is a communicating venous channel between the cephalic and basilic veins, which shunts blood from the cephalic vein to the basilic vein. It begins 2.5 cm below the elbow bend from the cephalic vein, runs obliquely upwards and medially to end in the basilic vein, 2.5 cm above the bend of elbow.^{16,21, 22.}

3) *Warid-i-Bāsaliq* (Basilic vein):

In Greek *Bāsaliq* means King since this vein is related to the vital organs of the body. Basilic is broader than cephalic, and it runs on the medial side of arm and travels down near the elbow joint. It is divided into two branches near the elbow joint; one branch is called *Bāsaliq* or *Bāsaliq Bāzriyān* and the smaller branch is called *Bāsaliq-i- Ibtī*.^{3,7,12,13,14,15,17}

In today's anatomy, we find that the *Warid-i-Bāsaliq* described as Basilic Vein. The basilic vein begins as the continuation of the medial end of the dorsal venous arch of the hand. It runs upwards along the back of the medial border of the forearm, winds round this border near the elbow to reach the anterior aspect of the forearm, where it continues upwards in front of the elbow along the medial side of the biceps brachii up to the middle of the arm, where it pierces deep fascia, unites with the brachial veins and runs along the medial side of the brachial artery to become continuous with the axillary vein at the lower border of the teres major.^{16,21,22}

4) *Warid Habl-uz-Zirā* (Brachial vein):

It is formed by joining the basilic and cephalic vein superficially and laterally at wrist joint and it is placed on the radius bone.^{3, 12, 13, 14, 15,}

In today's anatomy, we find that *Warid Habl-uz-Zirā* is described as a Median vein of the forearm. Median veins of the forearm begin from palmar venous network, run upwards in the midline on the anterior

aspect of forearm to end in any one of three veins in front of elbow (viz. cephalic, basilic, and median cubital veins).^{16,21, 22.}

5) *Warid-i-Ibtī* (Axillary vein):

An Arabic word Ibt which means "armpit" also called Aslam that means "Safe" because there are no arteries or nerves close to this vein, it is a branch of Bsalic. According to author of *kamil us sana't* and *kitab al muktarat fit tib*, in his anatomical description of *warid-i-Ibtī* stated that it lies beneath the head of *Zanad Asfal*. (Ulna).^{7,13,14,17}

In today's anatomy, we find that *Warid-i-Ibtī* described as Axillary vein begins as a continuation of basilic vein at the lower border of the teres major muscle and runs through axilla, passes through its apex to continue as subclavian vein at the outer border of the first rib. It runs upward along the medial side of the axillary artery and ends at the outer border of the first rib by becoming the subclavian vein.^{16,21, 22.}

6) *Warid-i-Usailim* (Salvatella vein):

Usailim is a branch of Ibtī, also known as Dunbal of *Basaliq*. According to Jalinus, it lies between little finger, ring finger and middle finger.^{7, 13.}

In today's anatomy, we find that *Warid-i-Usailim* is described as Salvatella vein (*Dorsal metacarpal vein*). Dorsal metacarpal veins are the three veins that are located on the back of the hand. These veins are made up of the dorsal digital veins, which are the veins that are located on adjacent sides of the second, third, and fourth fingers along the dorsal interossei. The dorsal interossei are muscles located between the metacarpals. The veins drain from the four fingers into the dorsal venous network in the hand. This network also consists of the dorsal digital vein from the radial side of the index finger and the veins of the thumb. Here the network moves upward and becomes the cephalic vein. The vein from the ulnar side of the little finger joins the network on the ulnar side and becomes the basilic vein.²⁰

Name of veins	Origin	Therapeutic Indication
<i>Warid-e-Qifāl</i> (Cephalic vein)	from the dorsal venous arch of the hand on preaxial border of upper limb. ¹⁶	Headache and migraine, Melancholia, Vertigo, Encephalitis, Epilepsy, Conjunctivitis, Uvulitis, Toothache, Gingivitis, Hepatitis. ²⁰
<i>Warid-e-Bāsaliq</i> (Basilic vein)	from the dorsal venous arch of the hand on postaxial border of upper limb. ¹⁶	Melancholia, Pleurisy, Pneumonia, Hepatitis, Obstruction in the liver, Jaundice etc. ²⁰
<i>Warid-e-Akḥal</i> (Median Cubital veins)	2.5 cm below the elbow joint from the cephalic vein. ¹⁶	Diseases of the head and neck like melancholia, headache. ²⁰
<i>Warid-e-Habl-uz-Zarā</i> (Brachial veins, Accessory cephalic vein)	Union of the ulnar and radial veins in the cubital fossa. ¹⁶	Meningitis, conjunctivitis, pain in the ear and like cephalic vein. ²⁰

Warid-e-Ibti (Axillary vein)	Inferior border of the axilla by the union of the paired brachial vein and the basilica vein. ¹⁶	Lung abscess, Hemoptysis, Gastritis, Inflammation of the urinary bladder, Menorrhagia, Cervicitis. ²⁰
Warid-e-Usailum (Salvatella vein, Third dorsal metacarpal)	It lies 2-3 cm proximal to the heads of metatarsals. ¹⁶	Right third dorsal metacarpal-liver disorders. Left third dorsal metacarpal-cardiac and splenic disorders. ²⁰

CONCLUSION And DISCUSSION:

Unani physicians have done all the observations and research with limited resources available at that time. Their research work was stored in books in the form of ancient literature and manuscripts. This literature has become the base for the development of modern knowledge of medicine.

Venesection is considered as an important regimen in Ilaj bil Tadbeer as it completely removes the dominant humors or morbid matter from the body. For restoring health Unani physicians have described approximately 44 veins for venesection in whole body. Among them 12 veins have been described in both upper limbs for evacuation of morbid matter in various diseases. This is a very fine observation which they have made with the available resources. They described the veins in detail with their name, location, course, and surface anatomy. They also talked about venesection of a particular vein for a specific disease.

In today's modern era where everything is evidence based it becomes important to know the accurate and detailed anatomy of veins to prevent injury as well as complication. In this paper the anatomy of veins in hand described by Unani physicians along with modern anatomical details have been discussed. This discussion will be helpful for better understanding of venesection of hand veins. We hope that through this research paper physicians, academicians and researchers will benefit and this will open the door of research in the field.

Conflicts of Interest:

No conflict of interest.

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