

## A Comprehensive discussion on procedure of *Fasd* (venesection)

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**ABSTRACT:** Health is the key factor for the progress both at individual and community level, so the disease should be the great concern at both the levels. There is different philosophy in every stream of the medicine. Unani system of medicine defines health is equilibrium of humors in terms of quality and quantity and any disturbance in it, result in disease. Asbaab-e- sittazarooriya (six essential factors for life) are the basic parts which are involved to maintain the equilibrium of humors and Ilaj-Bit-Tadbeer is the special regimen to restore and improve the health through modulation or modification in Asbaab-e-sittazarooriya. Moalijat-e-Khususi is the old nomenclature of Ilaj-Bit-Tadbeer, suggested by Central Council of Indian Medicine, New Delhi. Ilaj-Bit-Tadbeer is similar to "Panchkarma" in Ayurveda.

There are various regimens has been utilized for preventive as well as therapeutic purposes due to their negligible side effects and environment friendly nature, even developed countries are also emphasizing the use of regimetal therapies prescribed by Unani physicians thousands year back as to treat the diseases as well as to maintain the body in good health. *Fasd* is one of the known regimens, used to evacuate the "Madda-e-Faasida" (waste material) in order to maintain proper balance of humors. There is specific procedure of *Fasd* which is the main highlight of this review article.

**Key Words:** : *Fasd*(venesection), Unani System of Medicine, Procedure of *Fasd*.

### Introduction:

Regimetal therapy (Ilaj- bil- tadbeer) is one of the most popular methods of treatment, practiced by ancient Unani scholars since antiquity. It is basically application of certain special techniques or physical methods of treatment to improve the constitution of body by removing waste materials and improving the defense mechanism of the body. *Fasd* is one of them, doing complete istefragh of "Madda-e- faasida" 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. There are some basic principles which is important before and after selecting and performing the *Fasd* for example, general considerations before *fasd*, material required and some specific procedural instructions for particular veins.

### General considerations before *Fasd*:

Here we are conveying some important precautions and considerations, proposed by eminent scholars that should be kept in mind while performing *Fasd*. These are as follows:

- Hippocrates advised *Hammam* with hot water before doing *Fasd* in patients having blood of thick consistency.<sup>1</sup>
- In head and neck, phlebotomy is done after binding a tight tourniquet or handkerchief around the neck.<sup>2,3,4</sup> followed by massage over the area of veins in order to fill the vein with blood so that the vein become more pronounced and easier to access.<sup>3</sup>
- In hand, phlebotomy should be done keeping in mind that the tourniquet is not so wide or so thin. It may be tightened over arm, forefingers and below shoulder joint as per the requirement. The knot of tourniquet should be near to the sight of phlebotomy and patient should be directed to hold his one hand with other. Hot water is irrigated over the sight of *Fasd* and patient should hold something in his hand as e.g. top, so that the vein becomes prominent. If vein is not accessible, tourniquet should be removed and tightened again. If it is not accessible even after doing so, some heavy object should be hanged over it, following which vein will become prominent within a few while.<sup>3</sup>
- In all the veins of head, phlebotomy should be done obliquely except in *Widājayn*.
- Longitudinal cut is applied in *Widājayn*.<sup>5,6</sup>
- If the vein has no connection with joint then longitudinal cut is better.<sup>6</sup>

- If small vessels to be cut then site is dipped in warm water.<sup>7</sup>

### Material Required

Scalpel, Gloves, Cotton, Bandage, Antiseptic lotion, Anaesthetic agent and haemostatic drug like *SangeJarāhat*, *Dammul Akhwain* etc. and Emergency kit etc.

- Sterilization of instruments of venesection like scalpel, blade, cotton etc.
- Ask the patient to lie down, but the position can be changed according to the vessels to be incised.
- Identify the vessel which is to be venesected.
- Veins are to be made prominent with a tourniquet at a distance of 4 cm proximal to the site of incision.
- Cleansing of the site of *Fasd* by antiseptic solution.
- Apply anaesthetic agent at site of incision.
- Give incision according to disease and condition of patient.
- Monitor the condition of patient during the procedure. If any complication arises during bloodletting like syncope, vomiting, spasm etc. then stop the bleeding and treat the condition accordingly. While in absence of complications, *Fasd* should be stopped only when speed of blood flow becomes slow or when colour of blood changes from blackish to bright red or consistency of blood becomes thin.
- Finally, the whole area is then dressed and bandage.
- After venesection, patient is advised to take bed rest for 6-8 hours.
- Patients are advised to avoid *Hār* foods and drugs, exercise and *Hammām*.
- They are also advised to take light and easily digestible foods.<sup>8</sup>

**Besides these, there are some specific procedural instructions for particular veins:**

**WaridMābiq-ur-Rukbah:** The tourniquet should be tightened adjacent to the upper end of thigh. Patient must be lying in supine position with both leg raised upward and then *Fassād* should search for vein.<sup>3</sup>

Leg and thigh should be tied tightly and patient is advised to walk some distance and continuously sit down and stand up in order to fill the vein with blood, so the vein become prominent.<sup>4,5</sup>

**Warid-i-Sāfin:** The tourniquet should be tied tightly at forefingers above the ankle and the leg should be kept over stone or any hard surface and pressed so that the vein become prominent.<sup>2,3,5</sup>

After the tourniquet is tied the patient should walk a few steps in order to make the vein accessible.<sup>4,5</sup> Most of the ancient scholars recommended longitudinal cut in this vein.<sup>2,3,5,9</sup> However, oblique cut is also recommended by some of them.<sup>10,11</sup>

**Warid 'Irq-un-Nasā:** A wide tourniquet is tied below hip joint up to forefingers and leg of patient should be kept on any hard object then vein should be searched.<sup>2,3</sup> After the tourniquet is tied, patient is asked to sit and stand frequently for a few times in order to fill the vein with blood.<sup>4</sup> Thigh and leg should be tied with ropes.<sup>5,10</sup> and longitudinal cut should be made.<sup>2,3,5,9</sup>

**WaridMusht-i-Qadam:** Tourniquet is applied over the ankle as done in phlebotomy of *Sāfin*. The vein is searched and cut is applied longitudinal.<sup>3</sup>

**WaridKhalf-al-Urqaob:-Muarrab** cut is most applicable cut in this vein.<sup>10</sup>

**Warid-i-Bāsaliq:-** Before applying the tourniquet vein must be palpated and identified properly in order to avoid any untoward circumstances, as many arteries adjoining this vein.<sup>3,7,10</sup> Once *Fassād* identified the vein adequately, the site should be marked before making cuts. Most of the time artery is situated above the wrist and runs towards the elbow, so the cut should be made on the lower part of the arm, And away from the artery. A superficial longitudinal cut, not so deep, should be made in the middle of '*Irq-i-Bāsaliq*. When artery is identified in one side, cut should be made on opposite side.<sup>3</sup>

When tourniquet is applied and *Bāsaliq* starts filling with blood, one can perform *Fasd* easily, but if artery is blocked and filled with blood, it is reasonable to perform *Fasd* in any tributaries of *Bāsaliq* and not in *Bāsaliq*.<sup>10</sup> *Nashal* the sophisticated instrument should be used to do *Fasd* and *Fassād* should be very careful while performing *Fasd* in this vein in order to avoid any unfortunate incident as discussed above.<sup>12</sup>

An oblique or *Muarrab* cut should be made in *Bāsaliq* and if arteries exist on both sides of the *Uruq-i-Bāsaliq*, then *Fasd* should be avoided.<sup>4</sup> In case of inaccessibility of *Uruq-i-Bāsaliq*, cut should be made in other tributaries of the vein e.g. *Ibti*.<sup>7</sup>

**Warid-i-Qifāl:-** The most suitable place for cut in this vein is below the *Maqām-i-Numud*. The vein requires great cautions while performing *Fasd* as any mishandling may cause congestion and *Waram*, leading to improper evacuation of morbid matters.<sup>3,10</sup> Start from origin of muscle and should be done in soft part of

muscle. If any mistake happens *Waram* will appear. This vein is considered to be safest among other as no artery or nerve is adjoining to this vein. Soft side should be chosen for *Fasd*, and cut should be completed in a single strike because applying multiple cuts may produce *Waramin* many cases.<sup>12</sup> Razi has proposed the same saying that the best way of *Fasd* in *Qifāl* is single strike.<sup>7</sup> In *Fasd* of *Qifāl* cut should be away from the head of the muscle which is above the *Mābiḍ* over the soft site, and cut should be wide enough to drain the morbid matters effectively.<sup>6</sup>

Some scholars have recommended *Muarrab* cuts,<sup>4</sup> while other recommended both *Muarrab* and longitudinal cuts in this vein for *Fasd*.<sup>13</sup> However Sheikh has stated that if longitudinal cut made, healing will be delayed.<sup>6</sup>

**Warid-i-Ak'hal:-** This vein also needs great cautions while performing *Fasd* as a nerve adjoining and exists beneath the *Ak'hal*. It is mandatory to identify the nerve and vein as well very carefully. Once both the vein and nerve are identified and differentiated, cut may be made parallel to the nerve.<sup>3</sup> Some scholars have stated that *Fasd* of this vein should be done avoided as a nerve is adjacent to it, and when necessary, it should be with great cautions.<sup>10</sup> This vein is visualised by applying the tourniquet.<sup>2</sup> Most of the scholars have recommended longitudinal cuts if *Ak'hal* is lying in between tow nerves.<sup>3,4,5,6,7,12</sup> however some have recommended both *Muarrab* and longitudinal cuts.<sup>13</sup> Neither should the cut be very superficial nor much deeper in this vein, as stated by various scholars.<sup>3,4,5,6,7,10</sup>

**Warid-i-Ibti:-** The vein is rubbed firmly with the help of fingers, hot water is irrigated over the vein site, tourniquet is applied, and arm is kept straight in order to fill the vein with blood. When vein become pronounced and easier to access, thumb is kept over it and a *Muarrab* cut is applied.<sup>2,4,13</sup>

**WaridHabl-uz-Zira':** The cut should be made near the site of tourniquet, as this vein usually slips and very difficult to hold it. The blade should be very sharp, fine and pin pointed like hair. It is important to appraise the movement direction of the vein prior to making cuts, once direction is identified cut should be made in opposite direction.<sup>3</sup> This vein is easy to access on applying the tourniquet.<sup>2</sup>

The other method is that the patient's hand is kept in hot water till skin become red and vein becomes palpable, and then tourniquet is tied and cut is made. If bleeding does not starts after applying cut then again put the hand in hot water and keep it for long to drain blood as required.<sup>12</sup>

The tourniquet should be applied four fingers above the site of *Fasd*<sup>13</sup> and the cut should be made longitudinally.<sup>3</sup> Some scholars have recommended *Muarrab* cuts,<sup>12</sup> while others have stated more precisely that *Muarrab* cut should be made basically in this vein for *Fasd* but if there is any adjacent artery to this vein then longitudinal cut should be made.<sup>5,6</sup>

**Warid-i-Usailim:** It appears on applying tourniquet four fingers above the wrist.<sup>2</sup> To perform *Fasd*, hand is dipped in hot water and tourniquet is tied over joint in order to allow the vein to be filled with blood and become visible. A longitudinal or oblique cut is made and hand is dipped in hot water to drain the blood in required volume.<sup>12</sup>

Razi has stated that the emersion of hand in hot water is quite enough sometimes to identify the vein,<sup>7</sup> however author of *Sadeedi* has stated that there is no need to put hand in hot water if *Fasd* is supposed to be done in summer season.<sup>14</sup> Most of the scholars have recommended *Muarrab* longitudinal cuts in this vein,<sup>2,4,9,13</sup> however some have advocated longitudinal<sup>10</sup> and some of them including AbulQasimZahravi are in favour of *Muarrab* cut.<sup>12</sup>

**Warid Al-Jab'ha:-** Doing *Fasd* in this vein is very simple and easy.<sup>2</sup> *Fās* is an instrument that can be used in this vein,<sup>4,12</sup> or the instrument named *Pahnai* can be used.<sup>4</sup> Longitudinal cut should be made in this vein as stated by various scholars.<sup>2,10</sup> however, Jurjani said that the *Muarrab* cut is more suitable than longitudinal one.<sup>4</sup>

**Warid-i-Arnabah:-** The instruments used for *Fasd* of this vein are *Fās* and *Rā'asha*.<sup>2</sup> For this purpose *Tabib* should hold the nose of the patient by his left hand and incision should be made on the cartilage present at the tip of the nose.<sup>1</sup>

**Irq-al-Māq:-** The instrument *Rā'asha* is used to do *Fasd* on this vein also. To perform *Fasd* in this vein, hold the patient head strongly and make a small, superficial, longitudinal cut and allow the blood to come out. Cut should not be so deep that may cause injury to the extra ocular muscle. Injury to extra ocular muscle may lead to formation of *Nāsoor* at injured site.<sup>2,4,6,10,12</sup>

**Warid-i-Widajayn:-** For *Fasd* of this vein patient should be asked to sit in the chair and *Tabib* should stand beside the patient head. To make vein prominent and visible, ask the patient to tilt his head to opposite side. Once vein become visible, a longitudinal cut should be made to drain the blood out. Ibn-i-HabalBughdadi has recommend *Muarrab* (oblique) cut as more suitable cut for *Fasd* in this vein.<sup>2,5,6,10,12</sup>

**Irq Taht-al-Khushshā:-** The incision should be made smoothly with instrument named *Rā'asha*.<sup>2</sup>

**WaridKhalf-al-Udhun:-** For *Fasd* of this vein, in the first instance, head of the patient should be shaved to remove all hairs. Posterior part of head should be rubbed thoroughly to make the vein prominent. When the

vein become visible, mark it and make longitudinal incision with the special instrument called *Sikkeeniyah*.<sup>12</sup> According to Ibn-ul-QufMaseehi *Fās* and *Rā'asha* can also be used for *Fasd* in this vein.<sup>2</sup>

**Warid-ul-Anfaqa:-** For *Fasd* of this vein incision should be made longitudinally.<sup>10</sup>

**Warid-i-Sudghi:-** While doing *Fasd* in this vein, ask the patient to hold his neck tightly in order to make the vein prominent. *Tabeeb* should incise the vein by holding and pressing it with his thumb. After withdrawing sufficient amount of blood, ask the patient to loosen the grip of hand over the neck. Bleeding will be stopped immediately after loosening the grip over the neck, and if not, cauterization should be done to check the excessive bleeding.<sup>4</sup>

**Chahār Rag:-** Quivering or shaking patient's lips is helpful in order to make the vein pronounced. By doing so, one vein on right side and one on left side will appear. Sometime some small veins may also appear along with them; therefore transverse incision should be made to cover all those small veins along with *Chahar Rag*. If these veins are not found, then a large incision should be made. Same procedure may also be applied in the veins of upper lip.<sup>12</sup> Author of *Mizan-ut-Tib* has mentioned that the *Fasd* of this vein is performed in the inner side of the lips.<sup>15</sup>

**Warid That-al-Lisān:** Ask the patient to sit in sunlight and hold the tongue upward then search the vein on either side of the tongue. The colour of both right and left vein is blackish and this vein is easily accessible. However, *Fasd* of this vein is quite challenging and needs great cautions. A superficial longitudinal incision should be made very carefully, as inattention may lead to serious consequences.<sup>4,9,12</sup>

**Warid-i-Mankharain:-** Ask the patient to sit in a direction that allows the sunlight to reach his nostrils directly. Ask patient to hold his breath till his face become hyperemic and vein become prominent and then incision should be made.<sup>4,5</sup>

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