



Exploring therapeutic implications of *Faṣd* (venesection): an evidence-based approach

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ABSTRACT

Faṣd is a foundational practice within *Ilāj-bit-Tadbīr* (regimenal therapy) framework of Unani medicine. Recognized for its preventive and therapeutic benefits, *Faṣd* (venesection) has been employed for centuries alongside other bloodletting techniques such as *Hijāma* (cupping) and *Irsāl-e-Ālaq* (leech therapy). According to the World Health Organization's International Standard Terminologies on Unani medicine, *Faṣd* or *Al-Iftiṣād* (IUMT-7.2.6) serves as a regimenal intervention aimed at the complete evacuation of morbid matter, thereby facilitating the moderation and balance of all four humours. The procedure involves the deliberate incision of specific veins to expel *Akhlāt Radī* (morbid humours) and restore the body's physiological equilibrium. Rooted in the principle of *Istifrāgh* (excretion), venesection is designed to alleviate *Imtilā'* (congestion) and reduce blood viscosity, contributing to overall systemic harmony. This paper delves into the historical development of venesection, outlines procedural protocols, and highlights its therapeutic relevance. It further integrates contemporary scientific insights and identifies clinical conditions where *Faṣd* demonstrates potential efficacy.

1 Introduction

Humoral theory in Unani medicine believes the presence of four humours viz. *Dam* (blood), *Balgham* (phlegm), *Safrā* (yellow bile) and *Saudā* (black bile) in the body. An alteration in the quality and/or quantity of these humours produces morbid material, which results into various diseased conditions. Hence evacuation (*istifrāgh*) of this morbid material from the body becomes essential to regain homeostasis of humours. Moreover, Unani system of medicine have various therapeutic modalities viz. *Ilāj-bit-Tadbīr* (regimenal therapy); *Ilāj-bit-Ghīza* (dietherapy); *Ilāj-bit-Dawa* (pharmacotherapy) and *Ilāj-bit-Yad* (surgery). *Ilāj-bit-Tadbīr* is an ideal and simple way of treating a disease as well as the means to preserve health. It comprises of

Hijāmah (cupping), *Faṣd* (venesection), *Ta'līq* (leeching), *Kaiyy* (cauterization), *Riyādat* (exercise), *Dalk* (therapeutic massage), *Takmeed* (fomentation), *Naṭūl* (irrigation), *Dimād-wa-Tīlā'* (ointment and liniment), *Ta'reeq* (sweating), *Idrār-i-bawl* (diuresis), *Hammām* (traditional bath), *Ishāl* (purgation), *Qay'* (emesis), *Huqna* (enema) and *Imāla* (diversion of morbid material).

According to the WHO's International Standard Terminologies on Unani medicine, bloodletting through *Faṣd* or *Al-Iftiṣād* (IUMT-7.2.6) is a mode of regimenal therapy for complete evacuation of morbid matter, leading to moderation of all humours (Anonymous, 2022). *Faṣd* also known as phlebotomy enjoys great importance in the management of various diseases. *Ibn Sina* describes *faṣd* as a comprehensive method of elimination, intended to expel excessive and pathological

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humours from the body to restore physiological balance. According to him this modality is particularly effective when a morbid matter is uniformly distributed in the body (Sina, 1992). *Ibn al-Quf al-Masihi*, the esteemed author of *Kitab al-Umdah fil-Jarahat*, describes *faṣd* as a deliberate form of *Tafarruq-i-Ittisāl* (disruption of continuity), performed on veins using specialized instruments. Its purpose is to evacuate excessive or pathological humors from the body, which, if retained, may predispose the individual to various infections (Masihi, 1986). *Ibn Hubal Baghdadi* (1121–1213 AD) describes venesection as essentially a thorough process of removing blood and the dominant humours that are mixed within it, directly from the vein (Baghdadi, 2005).

2 Historical Evolution of *Fasd*

Fasd, also known as phlebotomy or venesection, is a therapeutic practice deeply rooted in Unani medicine. Its origins trace back approximately 3000 years to ancient Egypt and Mesopotamia, where early depictions in literature and art document its use. Over time, *faṣd* was adopted and refined by successive civilizations, including the Greeks, Romans, Arabs, and Persians, eventually permeating European medical traditions during the middle ages and Renaissance. The earliest textual references to venesection appear in the *Hippocratic* corpus (5th century BCE), where the procedure was described as a method of evacuating excess humours. In ancient Greece, *Fasd* gained prominence through the teachings of *Hippocrates* and was later reinforced by *Galen*, whose anatomical discoveries challenged prevailing beliefs. *Galen* demonstrated that arteries contained blood rather than *pneuma* (air), and he distinguished between arterial and venous blood—laying the groundwork for the theory of oxygenated and deoxygenated blood (Bell, 2016; Thomas, 2014).

Galen's humoral theory positioned blood as the dominant humour, necessitating its regulation through therapeutic removal. He advocated *faṣd* and purging as essential interventions to treat conditions arising from "plethora"—an overabundance of blood. *Erasistratus*, another influential Greek physician, similarly attributed many diseases to this excess and supported bloodletting as a corrective measure. *Archagathus*, one of the earliest Greek physicians to practice in Rome, became known for his extensive use of *faṣd*, earning a reputation for aggressive therapeutic interventions (Faiz, 2018). *Galen*'s influence persisted throughout antiquity and into the Islamic Golden Age, where Unani scholars preserved and expanded upon his teachings. The practice of *Fasd* reached its zenith in 19th-century Europe, where it was widely employed across various medical schools. During this period, both *Hippocratic* and *Galen*'s principles continued to inform clinical decision-making. Bloodletting was considered a rational and necessary approach to restoring humoral balance and alleviating systemic congestion (Thomas, 2014).

3 Indications of *Fasd*

Fasd is traditionally employed when there is an excess of *Dam* or blood in the body. It is indicated both prophylactically—when a patient is at risk of developing disease—and curatively—when pathological conditions have already manifested. The primary objective in both scenarios is the evacuation of either the general excess of humours, the abnormal humour, or both (Hamdani, 2004; Faiz, 2018).

Venesection is particularly beneficial for individuals predisposed to blood-related disorders. An overabundance of blood (plethora) is considered a predisposing factor for a wide spectrum of disorders, particularly those classified under *Amrāz-e-Damvia* (blood-dominant diseases). These include: 1) Musculoskeletal and neurological conditions: sanguineous sciatica, gout, rheumatism, convulsions, coma (*Sakta*), epilepsy (*Sara*), and melancholia. 2) Respiratory and vascular disorders: recurrent haemoptysis, hemoptysis due to rupture of pulmonary veins, and diphtheria (*Khunaq*). 3) Gynaecological and gastrointestinal conditions: amenorrhea, bleeding piles, and menorrhagia. 4) Ophthalmic and ENT manifestations: inflammatory conjunctivitis, swelling of the throat and internal organs. 5) Systemic symptoms: excessive internal heat and organ debility. 6) Venesection is also recommended in wounds and contusions: as a prophylactic measure to prevent inflammation. Threatening abscess rupture: even in the absence of other indications or humour excess, to prevent premature discharge. 7) Fevers of unknown aetiology: to reduce the burden of morbid matter. 8) Hemorrhagic conditions such as epistaxis, haemoptysis, menorrhagia, and bleeding piles. In these cases, the technique of *Imāla Mawād* (diversion of blood to the opposite side) is employed to arrest bleeding, often with notable efficacy (Qazi, 2024; Baghdadi, 2005; Majoozi, 2010; Jurjani, 1903).

4 Contraindications

Fasd (venesection) is carried out freely as long as the disease has not yet developed but once it has appeared the idea of venesection should be given up because it would then make the humours thin and disperse them into the normal blood stream. *Fasd* is not allowed when: (1) **Age:** Not before 14, or after 70 years of age. (2) **Physique:** those who are very emaciated, corpulent, flabby muscles, white or yellow coloured and those who have often been ill. (3) **Physiological states:** (a) stomach is full after heavy meals (b) bowel is loaded with faeces or having chronic constipation (c) during state of nausea (d) during hypersensitivity of the pylorus, or debility of the sphincter and colitis (4) **Miscellaneous:** a resolving bath should not be taken before *faṣd*, in cold temperament individuals, during cold climate etc. (a) during state of fasting (b) pregnancy (c) menstruation (d) after coitus (e) in acute or infective fevers, and on the days of paroxysms in fever (Masihi, 1986; Faiz, 2018).

5 Guidelines and Procedure

Ideal season for Faṣd: Spring has been described as the best season for *faṣd*, especially for persons predisposed to sanguinous or blood disorders. For prophylactic purposes *faṣd* should be performed in the early spring and at mid of the autumn. However, the recommended season may also vary according to the individual's temperament. For a person having wet temperament, end of spring would be the best season for *faṣd*. Likewise; for a person having moderate temperament, *faṣd* ideally would be performed in the mid of spring; and if the person is having a hot temperament, then early spring would be the best season for *faṣd*. (Jurjani, 1903).

Amount of blood to be let out: This varies from case to case. Some people can stand blood loss of even more than five or six pounds, while others seemingly fit and healthy are unable to bear even a fraction of this loss (Jurjani, 1903).

5.1 Pre-venesection recommendations

(a) The stomach requires to be fortified before procedure. If the stomach is weak and sensitive, give pieces of bread soaked in rob made with vinegar of good odour. If the person is having cold temperament, bread should be dipped in sugar water with aromatics, or a syrup of spearmint perfumed with musk. (Faiz, 2018)

(b) Instruments- sterilized scalpel, blade, gloves, cotton, bandage; antiseptic liquid, anaesthetic agent, haemostatic (*Habis-i-Dam*) drugs like *Sang-e-Jarahat* (soap stone i.e. Hydrated magnesium silicate), *Damm-ul-Akhwain*, (*Dracaena cinnabari* Balf. f.) etc. (Masihi, 1986; Faiz, 2018).

5.2 Procedure

Patient should be made lie down in supine position, but the position can be changed according to the vessels to be incised. Identify the vessel and made prominent with a tourniquet at a distance of 4 cm proximal to the site of incision. Cleanse the area of *faṣd* with antiseptic solution. Apply anaesthetic agent at site of incision. Give incision according to disease and condition of patient. The incision should be longitudinal to render clotting less likely. Small incision is generally best during summer whereas large wide incision is recommended when *faṣd* is being applied as prophylaxis, preferably during winters. Monitor patient during the procedure, and if any complication like syncope, vomiting, spasm etc. arises during bloodletting then stop the bleeding and treat the condition accordingly. However, in normal circumstances *faṣd* should be stopped when blood flow becomes sluggish or colour of blood changes from blackish to bright red or consistency of blood becomes thin. Finally, the whole area is then dressed and bandaged. After venesection, patient should be advised to take bed rest for 6-8 hours (Zahrawi, 1947; Masihi, 1986; Sina, 1992).

5.3 Post-venesection recommendations

(a) Patients are advised to take light and easily digested diet and to avoid *ghiza e haar* (hot diet), exercise and *hammam* (traditional hot bath). (b) Advised to take rest in supine position (c) If the puncture gets inflamed, a small bloodletting should be carried out from the other extremity (Masihi, 1986; Hamdani, 2004). (d) *Faṣd* must be carried out through a narrow rather than a wide opening and repeated on alternate days. Repeated sessions of bloodletting are preferred rather than a large letout in a single sitting (Masihi, 1986 ; Kabeeruddin, YNM).



Fig. 1. Procedure of *Faṣd*

Table 1. Therapeutic applications of *Faṣd*

S.No.	Name of the Vein	Indications
1.	<i>Warīd-e-Qīfāl</i> (Cephalic vein)	Diseases of the head and neck like meningitis, conjunctivitis, pain in the ear.
2.	<i>Warīd-e-Akhal</i> (Median cubital vein)	Diseases of the head and neck like melancholia, headache.
3.	<i>Warīd-e-Bāsālīqā'la</i> (Basilic vein)	Pleurisy, pain in the stomach and liver, splenomegaly, piles, proctitis, endometritis
4.	<i>Warīd-e-Habl-u-Zarā'</i> (Accessory cephalic vein)	Similar to those of the cephalic vein
5.	<i>Warīd-e-Usailum</i> (Third dorsal metacarpal vein)	Right third dorsal metacarpal-liver disorders. Left third dorsal metacarpal-cardiac and splenic disorders
6.	<i>Warīd-e-Ibti</i> (Axillary vein)	Chest pain, Similar to those of the basilic vein
7.	<i>Warīd-e-Şāfin</i> (External Saphenous vein)	Sciatic pain, gout, varicose vein, elephantiasis, amenorrhoea, orchitis
8.	<i>Warīd-e-Şāfin</i>	Obstructed bleeding piles, menstruation

	(Internal Saphenous vein)	
9.	<i>Warīd-e-Mābiż-ur-Rakba</i> (Popliteal vein)	Obstructed bleeding piles, menstruation
10	<i>Warīd-e-Musht-e-Qadam</i> (Vein over the heel)	Similar to those of saphenous vein
11.	<i>'Irq-ul-Jabha</i> (Frontal vein)	Heaviness of the head and eyes, chronic headaches
12.	<i>Warīd-e-Maiqain</i> (Veins at the inner canthus of eye)	Headache, migraine, chronic conjunctivitis, ectropion, leucoma, trachoma, styes, night blindness.
13.	<i>WidājZāhir</i> (Jugular vein)	Early stages of leprosy, serious throat angina, asthma, bronchitis, pneumonia, hoarseness of voice, dyspnoea.
14.	<i>WarīdAranba</i> (Nasal branches of facial vein)	Chloasma, discolouration of face, piles, boils and itching of nose.
15.	<i>Irq e Khalf-al Uzn</i> (Parotid veins)	Dizziness, Tinnitus
16.	<i>Warīd-e-Shafa</i> (Labial vein)	Ulcers of the mouth, stomatitis, thrush, bleeding gums, Foul breath
17.	<i>WarīdTahṭul-lisān</i> (Inferior lingual vein)	Diphtheria and tonsillitis (Masihi, 1986; Zahrawi, 1947; Sina, 1992; Rhazi, 1999)

6 Evidence Based Reports:

6.1 Venesection: An effective non-pharmacological treatment for patients with high serum ferritin Type-2 Diabetes

Wilson & Thompson (2017), conducted a pilot study to investigate whether venesection is a viable treatment option for patients with type 2 diabetes. Four cases with elevated serum ferritin and type-2 diabetes were subjected to monthly venesection for 3–9 months, and monitored 3 monthly for serum ferritin and glycated haemoglobin (HbA1c). In all four cases, serum ferritin was dramatically reduced, and the HbA1c was reduced in all but one case, which was a diet-only controlled patient with diabetes and had near normal HbA1c. In two cases, HbA1c was reduced by 2–3% units (22–33 mmol/mol), making it superior to any current medication. Findings of this study may provide clinicians a powerful new tool to intervene in the pathological process of type 2 diabetes by a very simple manoeuvre - venesection.

6.2 Comparative efficacy of acupuncture, venesection, and physical therapy on chronic low back pain outcomes: A randomized clinical trial

Jamali et al., 2024, demonstrated the effectiveness and the safety of acupuncture and venesection on Chronic low back pain (CLBP) and patient functionality. In a single-blinded, randomized clinical trial with balanced allocation, 105 CLBP patients who had no back pain-attributable structural or major diseases were randomly allocated into three parallel arms and received either physical therapy (PTG), acupuncture (APG), or venesection (VSG). Pain severity and functional aspects were evaluated using the visual analogue scale (VAS) and Oswestry disability index (ODI) during the study. Ninety-five patients were reviewed in the final analysis (PTG=33, APG=30, VSG=31). Statistical analysis showed all procedures had reduced VAS score immediately after the first session, after the last session, and after follow-up; however, APG and VSG values were significantly lower ($P<0.05$). Pain reduction results in follow-up period were more sustainable in APG and VSG as compared to PTG ($P<0.01$). ODI results revealed global improvement after the last session of the treatment in all groups, while APG had more significant results ($P<0.05$). During the follow-up period, ODI still tended to decrease in VSG, non-significantly increased in APG, and significantly increased in PTG. Considering the pain and functional scores, it was concluded that both acupuncture and venesection can reproduce reliable results. Acupuncture and venesection both have sustained effects on pain and daily function of the patients even after treatment termination, while physical therapy had more relapse in pain and functional limitations.

6.3 Safety and efficacy of *Faṣd*(Blood-letting through venesection) in the cases of Osteoarthritis - A randomized controlled study

In a clinical study, Khan et al., 2012 explored the efficacy of traditional Unani intervention *Faṣd* (venesection) for osteoarthritis (OA). A total of 40 cases of OA were randomly divided into control and test groups of 20 each. The control group was given Unani herbal drugs while the test group was provided the same Unani treatment along with *Faṣd* for six weeks. The safety and efficacy measurements were performed at baseline and at the last follow-up. The intervention of *Faṣd* exhibited statistically significant results in comparison to the control group in subsidence of pain, and restriction of joint movement without causing any adverse reaction.

6.4 Effect of *Faṣd* (venesection) in the management of acute cases of *'Irq al-Nasā* (Sciatica): A case series

Ali et al., 2016 evaluated the efficacy of *Faṣd* in the management of the acute symptoms of *'Irq al-Nasā* i.e. Sciatica in three patients. *Faṣd* was carried out at the saphenous vein around the

medial malleolus of affected limb on the 1st day and 5th day for one week only. Assessment parameters were VAS, ODI and Straight Leg Raising Test (SLRT). On the first day, the treatment was started with *Fasd*, performed in short saphenous vein. Assessment of the patient was then done on the 2nd day of treatment on objective parameters. *Fasd* was done again on the 5th day and assessment was done on the 6th day. Pre and post-treatment analysis was done statistically to evaluate the efficacy of the treatment. The study revealed that *Fasd* is a useful therapy for the symptomatic relief and limiting disability in patients of 'Irq al-Nasā without any apparent adverse effect(s).

6.5 The effect of phlebotomy (*Fasd*) on Carpal tunnel syndrome: A randomized clinical trial

In a randomized clinical trial Chelavi et. al, 2021 demonstrated therapeutic efficacy of *Fasd* in Carpal tunnel syndrome. During the study a total of 70 patients aged between 20-60 years of either gender with CTS were studied. The participants were divided into 2 groups: Control and Intervention. Within the control group, 35 were treated with a routine night splint for 3 months, and 35 patients in the intervention group received *Fasd* (Phlebotomy) of Os ailem vein in addition to the routine night splint. Outcome measures were evaluated by the VAS Scale, Boston questionnaire, and the diagnostic NCV test. The results showed that the incorporation of phlebotomy treatment in an exceedingly routine therapy program would reduce the pain and symptom severity, improve the functional status of patients, and distal sensory and motor disturbance of the median nerve. Therefore, it was concluded that phlebotomy, as a convenient and low-cost

traditional medicine technique could be employed in the treatment of CTS.

6.6 A case report of treating femur head necrosis applying Persian-medicine

Navabzadeh et. al. 2022; reported a case of 46-year-old man who had felt severe pain in the left side of his hip for a month. The pain had gradually increased, in MRI, it was diagnosed that he was suffering from AVN. He was recommended to undergo surgery to change the femur head. According to Persian Medicine concept, it was diagnosed that the patient suffered a disorder of blood flow and the concentration of abnormal black bile (abnormal Sauda) in the hip area and the head of the femur. The patient was administered 14 massage sessions every other day, "Mundij-e-Sauda", Sikanabin-e-Bazoori and "Mushil" (Laxative drug). The phlebotomy of the left basilic vein (*Fasd*) and the right basilic vein was done after 2 and 4 weeks, respectively. The pain entirely disappeared after the second phlebotomy. Two months later, MRI and bone scan were repeated, and it was reported that femur necrosis was repaired.

6.7 Siravedha (Venesection therapy) in the management of Burning feet syndrome-A single case study

Dhalani et al. 2022; reported a case of a 38-year-old male presented with complaints of severe burning and sweating in the left foot for 9 months. The patient was treated in the outdoor patient department with two successive sittings of *Siravedha* i.e. venesection therapy each at an interval of 7 days. Then follow-up was done after 10 months for recurrence. After the treatment, the symptoms of burning and sweating were completely relieved.

Table 2. Current clinical studies

S.N.	STUDY TITLE	RESULTS
1.	Venesection treatment inhaemochromatosis – current bestpractice from the BSG/BASL SpecialInterest Group	Singh et al., 2025 demonstrated that treatment with venesection improves mortality and reduces morbidity from liver disease, though there is limited evidence regarding its benefit in the setting of symptoms and other organ damage.
2.	A Study of Indications, Clinical Applications, and Effects of Therapeutic Phlebotomy at a Tertiary Care Hospital Navi Mumbai	Gupta et al., 2024 showed that in cases of Polycythemia, hematocrit reduction was significantly greater in patients with four or more sessions ($P < 0.001$), while haemoglobin levels decreased more significantly after three sessions ($P < 0.001$) after undergoing different numbers of therapeutic phlebotomy sessions.
3.	Systemic iron reduction by venesection alters the gut microbiome in patients with haemochromatosis	Parmanand et al; 2020 revealed that systemic iron reduction was associated with an alteration of the gut microbiome, with changes evident in those who experienced reduced faecal iron availability with venesection. For example, levels of <i>Faecalibacterium prausnitzii</i> , a bacterium associated with improved colonic health, were increased in response to faecal iron reduction. Similarly, metabolomic changes were seen in association with reduced faecal iron levels.

7 Conclusion

In conclusion, *Fasd* represents a historically rooted yet scientifically promising surgical intervention within Unani medicine, particularly for managing sanguinous disorders. Its application in draining excess blood and dominant humours has been well-documented by Unani scholars and endorsed by figures like *Hippocrates* and *Galen*. Contemporary research supports its relevance, especially in conditions such as polycythemia-vera, hereditary hemochromatosis, and sickle cell disease. However, careful attention to contraindications remains essential. To fully realize its therapeutic potential and ensure safe integration into modern clinical practice, structured and rigorous clinical trials are imperative. Such investigations will not only validate its efficacy and safety but also pave the way for its reintegration as a complementary modality in the treatment of blood-related disorders.

Consent of Publication

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Conflict of Interest

Dr. Jamal Akhtar serves as the *Associate Editor* of the *International Journal of Unani and Traditional Medicine*. He had no involvement in the editorial review or decision-making process regarding this manuscript. All authors declare that there are no competing interests.

Ethics Statement

Ethical approval is not applicable as the research did not involve any testing on animals or humans.

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References

Ali, S.J., Nayab, M., Tarique, B.M. (2016) Effect of *Fasd* (venesection) in the management of acute cases of *Irqunnasa* (Sciatica): a case series study. *Res RevJHerb Sci.*;5(1):17-21.

Anonymous (2022). WHO's International Standard Terminologies on Unani medicine. Chapter 7, pp 422. ISBN 978-92-4-006495-9 (electronic version) ISBN 978-92-4-006496-6 (print version).

Baghdadi, I.H. (2005). *Kitab Al-Mukhtarat fit-Tibb*. Edition 1st, Vol. 1. Trans by CCRUM New Delhi. pp. 272-274, 371.

Bell, T.M. (2016). A brief history of bloodletting. *The journal of Lancaster General Hospital*. 11:119-23.

Chelavi, L.H., Ilkhani, R., Azadvari, M., Kenari, H.M., Kordafshari, G. (2021) The effect of phlebotomy (*Fasd*) on carpal tunnel syndrome: a randomized clinical trial. *Oncology and Radiotherapy*. 15(5):8-12.

Dhalani, K.H., Ganatra, R., Dudhamal, T.S. (2022). *Siravedha* (venesection therapy) in the management of Burning Feet Syndrome-A Single Case Study. *Int. JAYUSH Case Reports*.6(2):178-82

Faiz A, Ali F. (2018). Applied part of *Kulliyat* with reference to Venesection (*Fasd*): a review. *International Journal of Research and Analytical Reviews*; 5(31):583-6.

Gupta S.S., Dhote S.W., Lad S., Dey D.R. (2024). A study of indications, clinical applications, and effects of therapeutic phlebotomy at a tertiary care hospital Navi Mumbai. *Glob J Transfus Med*; 9:126-9.

Hamdani, K.H. (2004). Basic Principles of Regimental Therapy of Unani Medicine, Aijaz Publishing House, Kucha Chalan, Darya Ganj, New Delhi, pp. 68-69.

Jamali, D.M., Azadvari, M., Kordafshari, G., Zhao, B.X., Adel-Mehraban, M.S., Alipour, R., Karimi, M., Kazemi, A.H., Sourani, A., Vafaie, Sefti, A. (2024). Comparative efficacy of acupuncture, venesection, and physical therapy on chronic low back pain outcomes: a randomized clinical trial. *Ann Med Surg (Lond)*. 18:86 (5): 2729-2738. doi: [10.1097/MS9.0000000000001944](https://doi.org/10.1097/MS9.0000000000001944)

Jurjani, A.H. (1903). *Zakhira Khwar-zam Shahi*. Trans by Khan H.H. Vol. 1. Lucknow: Munshi Nawal Kishore; p. 196-8, 202-5.

Kabeeruddin, H.M. (YNM). *Tarjumawa Sharah Kulliyat Qanoon*, Nadeem Younus Prints, Lahore. pp. 1046, 1054,1077.

Khan, S.A., Rehman, S, Jamil, S.S. (2012) Safety and Efficacy of *Fasd* (Blood Letting through Venesection) in the Cases of Osteoarthritis –A Randomized Controlled Study. *Planta Med*; 78-P_107DOI: 10.1055/s-0032-1307615

Majoosi A. (2010). Kaamilus Sana'ah (Urdu Translation by GH Kantoori). New Delhi: Idara Kitab us Shifa.

Masihi, I.Q. (1986). *Kitab-al-Umdah fil-Jarahat*, 1st ed., Vol. 1, Translated by CCRUM New Delhi. pp. 185-191.

Navabzadeh, M., Abdi, M., Hadinia, J., & Ghods, R. (2022). A Case Report of Treating Femur Head Necrosis Applying Persian-Medicine. *Crescent Journal of Medical and Biological Sciences*. Vol. 9, No (4): 225-228.

Parmanand B., Watson M., Boland K.J., Ramamurthy N. et al; (2020). Systemic iron reduction by venesection alters the gut microbiome in patients with haemochromatosis.

JHEP Reports vol. 2j
100154. <https://doi.org/10.1016/j.jhepr.2020.100154>

Qazi, R., Ismail, B.A., Hushamuddin, B.R.K., Mushir, A. (2024). History, Evidences of Therapeutic Application Of An Ancient Unani Procedure Fasd (Venesction)- A Review, *Int. J. of Pharm. Sci.* 2(6):369-377. <https://doi.org/10.5281/zenodo.11507055>

Rhazi, Z. (1999) *Kitab Al-Mansoori*. Translated by CCRUM. New Delhi. pp. 166-67, 282, 317, 327-28, 344, 353, 355, 376, 395.

Sina, I.(1992). *Al Qanoon fit-Tibb*. Translated by Kinturi G.H. Vol. 1 & 2. Lahore book printers. pp. 264-67, 274.

Singh P., Mortimore G., Hicks K., et al. (2025). Venesection treatment in haemochromatosis – current best practice from the BSG/BASL Special Interest Group. *Frontline Gastroenterol* E pub ahead of print: [20 June 2025]. doi:10.1136/flgastro-2025-1031

Thomas, D.P. (2014). The Demise of Bloodletting. *J R Coll Physicians Edinb*. 44:72-77. <https://doi.org/10.4997/JRCPE.2014.117>

Wilson, M.S, Thompson, E.W. (2017) Venesection is an effective non-pharmacological treatment for patients with high serum ferritin type 2 diabetes. *J Clin Transl Endocrinol: Case Rep* doi:[10.1016/j.jecr.2016.10.002](https://doi.org/10.1016/j.jecr.2016.10.002)

Zahrawi A.Q. (1947). *Kitab al-Tasrif*. Translate by Alvi N.A. Kanpur: *Darul Ishaat*; p. 39, 174, 175, 178, 181, 182.