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Physiological Role of *Kabid* in Unani Medicine: A Conceptual Review

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ABSTRACT

The liver, a multifaceted organ, is central to regulating physiological processes including metabolism, detoxification, protein synthesis, and immune response. Liver disease stands as a leading cause of global mortality. Published data from the World Health Organization and The Global Burden of Disease show that the burden of CLD is large and increasing, primarily owing to the increasing burden of Non-alcoholic fatty liver disease (NAFLD) and alcohol-related liver disease (ALD). In Unani system of medicine Jigar (liver) is considered as vital organ, which is the origin of *Quwwat Ṭabī'iyya* (Physical Faculty). ***Jālīnūs*** regarded the liver as the absolute chief of the *Quwwat Ghādhiya* (Nutritive Faculty). Classical texts describe its anatomical position, *Mizāj'* (Temperament), and *Quwā'* (Multiple Faculties), including their absorptive, retentive, discriminative, digestive, and excretory functions. A large number of metabolic processes are taking place in the liver therefore it is known as *Matbakh* (Great Chemical Factory) of the body where *Haḍm Kabidī* (hepatic digestion/secondary digestion /chyle formation) transforms *Ghidhā'* (nutrients) into blood and other essential constituents. This review aims to explore the physiological importance of *Kabid* in Unani medicine, highlighting its classical concepts and relevance in modern-day clinical context.

Keywords: *Kabid*, Unani medicine, *Quwwat Ṭabī'iyya, Haḍm Kabidī,* chronic liver disease, liver physiology

INTRODUCTION

The liver, a multifaceted organ, is central to regulating physiological processes including metabolism, detoxification, protein synthesis, and immune response.[1] Various useful substances are formed in liver which directly or indirectly control the haematopoiesis.[2]

Liver disease stands as a leading cause of global mortality. The Global Burden of Disease 2019 study reported that 1.26 million individuals succumbed to cirrhosis and other chronic liver diseases in 2019, marking a 13% increase since 1990.[3]

Published data from the World Health Organization show that the burden of CLD is large and increasing, primarily owing to the increasing burden of Non-alcoholic fatty liver disease (NAFLD) and alcohol-related liver disease (ALD).[4]

According to epidemiological research, the whole Indian population may have a 12–35% prevalence of (NAFLD, with a greater frequency among individuals who are overweight or obese and those who have diabetes or pre-diabetes.[5]

Liver diseases still pose a significant global health challenge inspite of progression in its

pathology. This may be probably due to their asymptomatic onset, complex pathology and limited regenerative capacity. This growing burden makes it essential to explore various medical systems, including Unani medicine, which provides unique insights into the liver's structure, its temperament, and functions.

In Unani system of medicine *Kabid* (Liver) is considered as vital organ, which is the origin of *Quwwat Ṭabī'iyya* (Physical Faculty). According to ***Buqrāṭ,*** most of our life depends on our healthy liver and being essential place for all metabolic activities.[6] It is the source of blood formation, and also plays an important role in making the chyle acceptable for the organs.[7] If liver becomes incapable to produce blood, then other organs will not get sufficient nutrients and finally the organs get affected, and become weak.

Since Liver plays the central role in both health and disease, understanding its physiological role through the perspective of Unani medicine can provide new insights in preventive and promotive health care. This review aims to explore the physiological importance of *Kabid* in Unani medicine, highlighting its classical concepts and relevance in modern-day clinical context.

LITERATURE REVIEW

UNANI PERSPECTIVE OF *KABID* (LIVER)

Anatomy of the *Kabid* (Liver)

The liver is located below the last ribs on the right side. It is crescentic shaped, with its concave part directed towards the stomach. The liver surrounds the right portion of the stomach. The convex surface of the liver is in contact with the diaphragm. Liver is attached firmly with its membrane through the ligament. From the concave surface of the liver arises a channel known as the *Bāb al-Kabid* (porta hepatis). This channel is like a vessel, but it does not contain blood. This *Bāb al-Kabid* (porta hepatis) is divided into numerous hair-like branches within the liver. From the convex surface of the liver emerges a large vein, which branches repeatedly and extends throughout the entire body. Within the liver, this vein also divides into numerous fine, hair-like branches that merge with the branches of the *Bāb al-Kabid* (porta hepatis). [8,9,10]

Temperament of *Kabid* (Liver)

The *Mizāj'* (Temperament) of the liver is *Ḥārr Raṭb* (Hot and Moist) because it predominantly contains the components of flesh and blood. Furthermore, numerous arteries enter it.[8]

Physiological Role of *Kabid* (Liver)

Liver as the Chief of *Quwwat Ghādhiya* (Nutritive Faculty)

In the liver, *Ghidhā'* (food) undergoes transformation and becomes blood which gives nutrition to all the organs of the body. Since Liver is the principal of all the organs of nutrition, hence, ***Jālīnūs*** regarded the liver as the absolute chief of the *Quwwat Ghādhiya* (Nutritive Faculty). [8]

Quwwa (Faculties) of Liver [8]

Following are the *Quwwa* (Faculties) responsible for the functioning of *Kabid* (Liver):

1. ***Quwwat Jādhiba* (Absorptive Faculty):** Which absorbs *Ghiza e kailoosi* (chyle) from the intestines and stomach and delivers it to the liver.
2. ***Quwwat Māsika* (Retentive Faculty)**: Which retains the *Ghiza* until it is digested and transformed into nourishment.
3. ***Quwwat Mumayyiza* (Discriminative Faculty):** Which separates impurities from the chyle
4. ***Quwwat Hāḍima* (Digestive Faculty):** Which transforms the *Ghiza* into blood.
5. ***Quwwat Dāfi'a* (Excretory Faculty):** Which excretes the *fuzla* (waste) from the liver.

QUWWAT HĀḌIMA (DIGESTIVE FACULTY) [8,10,11,12]

The functions performed by this power are known as *Haḍm* (digestion) or *Taghayyur* (Transformation). This *Haḍm* is of 4 types:

(A) ***Haḍm Mi'dī / HaḍmAwwal / Taghayyur Mi'dī / Haḍm Kaymūsī*** (digestion or transformation of food inside the lumen of the gastro intestinal tract).

(B) ***Haḍm Kabidī / Haḍm Dom / Taghayyur Kabidī / Haḍm Kaylūsī-*** (metabolic changes in the liver).

(C) ***Haḍm 'Urūqī / Haḍm Som-*** (changes taking place inside the lumen of the vessels especially in the blood.

Since this change is rather inconspicious therefore, Abu Sahl Masihi has avoided from mentioning this hadhm and thus, there are only three hadhm according to him.

(D) ***Haḍm 'Uḍwī / Haḍm Chahārum / Taghayyur 'Uḍwī-*** (tissue or cellular metabolism).

METABOLISM OF LIVER (*HADHM KABIDI)* [11,12,13]

According to *Ṭibb* the *Quwwat Mughayyira* (transformative faculty) is found in all the *A'ḍā'* (cells and tissues) of the body where transformation in various compounds is taking place and the process of *Kaun* (anabolism) and *Fasād* (catabolism) is going on, and with the result production of thousands of compounds is taking place The purpose of these metabolic changes taking place in the tissues is two-fold. (1) for the benefit of their own cells-these changes are going on in almost all the cells of the body for the continuation of their life process (2) for the benefit of their own cells as well as for other organs (cells). This category includes various glands of the body as well as other tissues. Since liver is the largest gland of the body, therefore, is known as *Matbakh* (great chemical factory) of the body in *Ṭibb*. A large number of metabolic processes are taking place in the liver which are aimed at benefitting the liver cells themselves as well as the entire body.

"The *Quwwat Mughayyira* (transformative faculty) found in the liver performs such vast and extensive function, by which the entire body is benefitted."- ***Ibn Sīnā***

Since most of the metabolic processes (synthesis of materials and production of energy) take place in the liver and most of our aliments are transformed into the major constituents of blood in the liver, for the nutrition of the body cells, the liver is considered the seat and centre of *Quwwat Ṭabī'iyya* (Physical Faculty) i.e. the chief organ of metabolism. Owing to this fact a separate *Haḍm* i.e. *Haḍm Kabidī* (liver metabolism) has been designated.

Thus, when *Haḍm Mi'dī* is over and the *Ghidhā* is absorbed, it reaches to the *Kabid* (Liver) where it is transformed into most of the constituents of *Akhlāṭ* (blood).

The following changes take place owing to *Haḍm Kabidī*, and materials are formed.[12]

1. Red blood corpuscles (Dam) are produced in foetal life.
2. Red blood corpuscles are destroyed.
3. Plasma proteins including blood coagulation factors are manufactured. Liver completes the production of blood.
4. Bile is produced
5. Non-glucose monosaccharides are converted into glucose and glycogen.
6. Lactic acid, Pyruvic acid and glycerol are converted into glucose and glycogen.
7. Blood sugar is controlled by glycogenesis or glycogenolysis through *Haḍm Kabidī*.
8. Glucose is formed from other substances (neo glucogenesis).
9. Fats are manufactured from carbohydrates.
10. Metabolism of glucose.
11. Fat is oxidised to produce energy (A.T.P. & heat).
12. Cholesterol and acetate are synthesized.
13. Phospholipids are synthesized.
14. Fat synthesized from carbohydrates and proteins.
15. Unsaturated free fatty acids are converted into triglycerides and other lipids.
16. Glycerol is oxidised to produce energy.
17. Deamination of amino acids.
18. Urea and uric acids are formed.

19. Some amino acids are synthesized.
20. Degeneration and conjugation and inactivation of various-compounds take place.
21. Large amount of heat (*Ḥarārat Gharīziyya*) is produced.

Thus, from the above it will be seen that major metabolic. processes of the body are performed through to *Haḍm Kabidī* and most of the constituents of blood are formed through this *Haḍm* (metabolism). It is why the liver is said to be the seat of production of *Akhlāṭ* (blood) i.e. most of the constituents of *Akhlāṭ.*

Formation of Blood [10]

After digestion, the food passes through *Bawwāb* (pylorus) of the stomach and enters the *Ma'y al-Ithnā 'Asharī* (Duodenum). From there it proceeds to the *Ṣā'im* (Jejunum) and then penetrates into the *Al-Ma'y al-Daqīq* (Ileum).

From the small intestine, *Ghidhā Kaylūsī* (chyle) is absorbed into the veins that arise from the vein named as *Masāriqā* (mesenteric vessels). These veins transport this extract to a large vein known as the *Bāb al-Kabid* (porta hepatis), which carries it into the liver.

Within the liver, this substance is distributed through the vessels spread throughout it. The liver through its *Quwwat Mughayyira* (transformative faculty), convert this extract into blood. This newly formed blood is then sent into the large vein called the *Ajwaf* (Vena Cava), through which it is delivered to all parts of the body.

QUWWAT DĀFI'A (EXCRETORY FACULTY)

3 types of *Fuḍla* (*Waste Materials*) excreted by the liver: [8]

1. ***Fuḍlāt Mā'iya*** **–** fluid wastes, which is absorbed by kidneys for the formation of urine.
2. ***Fuḍlāt Ṣafrāwiyya*** **–** bilious wastes, which is absorbed by gall bladder to store in the form of bile.
3. ***Fuḍlāt Sawdāwiyya*** **–** black bile–type wastes, which is absorbed by spleen.

Fuḍlāt Mā'iya [14]

Excess fluid (*Mā'iyat*) needs to be excreted from the liver, for which the two kidneys have been created. Each kidney contains a duct connected via a channel to the convex surface of the liver, so that the kidneys may absorb the impure fluid from the blood before it reaches the organs for nourishment.

Function of kidney is to segregate water from *Laṭīf Khūn* which comes towards kidney from the liver and separated water is collected in the bladder for excreting it outside the body and remaining blood is distributed to the body's organs.

Fuḍlāt Ṣafrāwiyya [12,14,15,16]

All the yellow fluids of the body are called as *Ṣafrā'*. Some of them are produced with the result of metabolism, and since their functions are not yet known, these are considered as *Akhlāṭ Fuḍla* (excretory products). Some are secretory products and serve definite functions in the body.

Ṣafrā' is continuously produced in the liver but does not fall into the small intestine (duodenum) all the time. Instead, it is stored in the gall bladder and released into the small intestine to wash out the *Balgham* from the intestine in order to clean it. A certain amount of *Ṣafrā'* is also sent toward the stomach during digestion, i.e., when food is taken. Due to storage in the gallbladder, *Ṣafrā'* becomes five to ten times more concentrated, and its alkalinity is reduced.

Fuḍlāt Sawdāwiyya [14]

The Spleen (*Ṭiḥāl)* absorbs *Sawdā'* (black bile) from the liver and purifies the blood. Through the processes of *Istiḥāla* (Metabolism) and *Nuḍj* (Maturation), it produces *Turshī* (sourness) and *Qabḍ* (Astringency). A portion of this daily descends to the *Fam al-Mi'da* (Cardiac Orifice), which stimulates the desire for food. This matter is then excreted along with the *Barāz* (Faeces).

Failure of kidney in separating *Mā'iyat* can lead to:[14]	**Failure of Gall Bladder in storing *Ṣafrā'* (Bile) can lead to:** [14]	**Failure of Spleen in storing *Sawdā'* (Black bile) can lead to:** [14]
Istisqā' Laḥmī (Anasarca)	*Ḥumra* (Bilious Inflammation)	*Namash* (Naevus)
Istisqā' Ziqqī (Ascites)	*Buthūr* (Eruptions)	*Judhām* (Leprosy)
	Namla (Herpes Zoster)	*Qūbā* (Tinea/ Ringworm)
	Ḥummā Ḥādda (Acute Fever)	*Mālankhūliyā*(Melancholia)
		Bahaq Aswad (Pityriasis Nigra)
		Yarqān Aswad (Blackish discoloration of the skin

MATERIALS & METHODS

This paper is a narrative literature review aimed at understanding the physiological role *Kabid* (Liver) in relation to *Mizāj'* (Temperament), and *Quwā'* (Faculties) of *Kabid* (Liver) with special reference to *Haḍm Kabidī* (hepatic digestion) from the Unani perspective. Primary classical texts such as *Kitāb al-Kulliyyāt, Kulliyyāt Nafeesi, Dhakhīra Khwarizm Shāhī, Al-Qānūn fi'l Ṭibb,* and *Kāmil al-Ṣanā'a al-Ṭibbiyya* were reviewed to extract relevant concepts regarding *Kabid* (Liver). Modern scientific literature was also taken through databases like PubMed and Google Scholar, to analyze and interpret traditional Unani concepts in light of current understanding.

CONCLUSION

This paper highlights the physiological role of Kabid (liver) through the lens of Unani medicine. Classical Unani physicians viewed the *Kabid* not only as an anatomical entity but as the seat of the *Quwat-e-Tabi'iyya*, responsible for sustaining life through its absorptive, transformative, and excretory faculties. The description of *Hadhm Kabidī* in Unani texts aligns remarkably with modern concepts of carbohydrate, protein, and lipid metabolism, bile secretion, and detoxification. By exploring the role of Quwwa in the functioning of kabid, the study aims to provide a foundational understanding and establish a fundamental understanding of its metabolism in the body that may contribute to the prevention and management of the significant global health challenge.

Declaration by Authors

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REFERENCES

1. Santos AA, Paredes BD, Lemos Pechnick DC, Daliry A, Jannig PR, de Oliveira K, et al. Spatial metabolomics and its application in the liver. Hepatology. 2024;79(4):1158–79.
2. Sembulingam K, Sembulingam P. Essentials of Medical Physiology. 7th ed. New Delhi: Jaypee Brothers Medical Publishers; 2016. p. 255–6.
3. GBD 2017 Cirrhosis Collaborators. The global, regional, and national burden of cirrhosis by cause in 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet Gastroenterol Hepatol. 2020;5(3):245–66.
4. Younossi ZM, Wong G, Anstee QM, Henry L. The global burden of liver disease. J Hepatol. 2019;70(1):151–71. doi: 10.1016/j.jhep.2018.09.014.
5. Kumar S. The role of Ayurvedic management in non-alcoholic fatty liver disease (NAFLD): a case study. Int J Complement Altern Med. 2024;17(2):103–5.
6. Ibn Zohar AMA. Kitāb al Taysīr. New Delhi: Central Council for Research in Unani Medicine, Ministry of Health & Family Welfare, Govt. of India; 1986. p. 114–5.
7. Almaseehi AAI. Kitab al ʿUmdah fil Jarahat. Vol II. New Delhi: Central Council for Research in Unani Medicine, Ministry of

Health & Family Welfare, Govt. of India; [date unknown]. p. 127–8.
8. Ibn Rushd. Kitāb al Kulliyyāt. New Delhi: Central Council for Research in Unani Medicine; 1987. p. 26, 35, 49.
9. Qarshi MH. Jāmiʿ al Hikmat. New Delhi: Aijaz Publishing House; 2011. p. 657.
10. Majusi A. Kāmil al Ṣanāʿa. Vol 1, Part 1. New Delhi: Central Council for Research in Unani Medicine; 2010. p. 258–9.
11. Kabiruddin M. Kulliyat Nafeesi. Vol 1. New Delhi: Idara Kitabul Shifa; [date unknown]. p. 115–6.
12. Ahmed SI. Introduction to Al Umur al Tabiʿyah (Principles of Human Physiology in Tibb). New Delhi: Central Council for Research in Unani Medicine; 2009. p. 116, 170, 174–6.
13. Ibn Sina. Al Qanoon fit Tib. Vol 3. Urdu translation by Ghulam Hussain Kantoori. New Delhi: Idara Kitabul Shifa; 2010. p. 83–6.
14. Razi Z. Kitāb al Manṣūrī [Urdu Translation]. New Delhi: Central Council for Research in Unani Medicine; 1991. p. 51–2.
15. Kabiruddin HM. Tarjama wa Sharh Kulliyat Nafisi. New Delhi: Idara Kitabul Shifa; 2012. p. 541–2.
16. Jurjani I. Zakhira Khwarizm Shahi. Vol 1. Urdu translation by Hadi Hassan Khan. Lucknow: Matba Nami Nawal Kishore; 1902. p. 26–7.

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