

Understanding of *Dubayla al-Kabid* (Liver Abscess) in Perspective of Unani System of Medicine

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DOI: <https://doi.org/10.52403/ijhsr.20250710>

ABSTRACT

The *jigar* (liver) plays a pivotal role in the maintenance of health as a seat of *Quwat-e-Tabaiya* (vegetative faculty) and centre for *Istehalah* (metabolic processes), and *Akhlat* (humour production). A condition known as *Dubayla al-Kabid* refers to a localised liver abscess caused by unresolved *Warm-e-Jigar Harr* (hot liver inflammation). It arises due to internal factors like dominance of *Damawī* (sanguine) or *Şafrāwī Akhlat* (bilious humours) and external causes like trauma. When inflammation turns purulent, can form *Dubayla* (abscess). The term *Dubayla* is used for large abscesses and *Khurāj* for smaller ones, predominantly affecting the right lobe. Clinical symptoms include fever, chills, upper right abdominal pain, indigestion, night sweats, and *Qaşr al-Şawt* (respiratory distress). The prognosis worsens when multiple abscesses form in the porta hepatis (*Bab-al-Kabid*) or when pus spreads to adjacent organs like the *Ri'atayn* (lungs) or *Ghishā'-i-Qalb* (pericardium). Unani medicine emphasises early recognition and drainage to prevent complications such as necrosis or systemic infection. This comprehensive classical Unani literature, combined with contemporary clinical data, underscores the enduring relevance and adaptability of traditional healing in managing liver abscesses.

Keywords: *Dubayla al-Kabid*, *Hararat-e-Ghareeziyah*, liver abscess, Unani medicine, *Warm-e-Jigar*

INTRODUCTION

Jigar (liver) is regarded as a vital organ in the Unani medical system, which is seat of *Quwat-e-tabaiyah* (vegetative faculty). Buqrat stated that a healthy life depends on a normal functioning liver, which is required for all metabolic activities. [1] It is the source of blood production and makes the chyle suitable for the organs for the formation of *Akhlat* (humours) [2] If the liver is unable to produce *Akhlat*, other organs will not receive adequate nutrition, leads to weakening of organs. The liver's primary function is

Istihāla (metabolism), and production of *Akhlat* (humours) for the body. [3] *Su-e-mizaj* (abnormal temperament), *Su-e-tarkeeb* (structural deformity), *Tafarruq-e-itsal* (discontinuity), *Waram* (inflammation), and *Nafkhat* (gaseous matter collection) all contributed to liver disease development. [4,5] A '*Dubayla*' is any localised collection of purulent material caused by infection, in which the discharge becomes contained and accumulates beneath the tissue. Early management and rapid drainage are done for preventing infection and necrosis of

surrounding tissue. [2] *Dubayla* occurs when *waram harr* is large in size and has a small aperture. [6]

Hippocrates described the first liver abscess as being about 400 BCE, but the aetiology, diagnostic procedures, and therapy were not established until the twentieth century. [7]

MATERIALS & METHODS

This study is based on a qualitative review of classical Unani medical literature and contemporary biomedical sources. Classical Unani texts such as *Al-Qānūn fī al-Ṭibb* by Ibn Sīnā, *Kitāb al-Hawī* by Al-Rāzī, and *Kāmil al-Ṣanā'a* by Ali Ibn Abbas Majusi explained the Unani concept of liver physiology, pathogenesis, clinical features, and management of *Dubayla al-Kabid*.

Additionally, secondary sources, including peer-reviewed journal articles, WHO data, and modern clinical literature, were reviewed to analyse the epidemiology, etiologies, and current therapeutic approaches to hepatic abscess. Reference management followed the Vancouver citation style. Data regarding incidence, symptoms, diagnostic criteria, and treatment outcomes were compiled to provide a comparative understanding between Unani principles and modern medical findings.

Epidemiology

The annual incidence rate is approximately 2.3 cases for every 100,000 persons. Males are more likely than females to be affected. [8] Individuals aged 40 to 60 are more susceptible to liver abscesses that are not induced by trauma. [9]

The prevalence is significant in tropical countries due to a lack of sufficient sanitation and personal hygiene. [10]

Although the incidence of HA varies by geography, it is generally modest, ranging from 2.3 instances per 100,000 hospital admissions in North America to 275.4 per 100,000 in Taiwan. In the early 1900s, the most common cause of HA was appendicitis-induced pylephlebitis. Biliary tract disease emerged

as the most common cause of HA in the late 1900s, and it still is today.

Recently, there has been a rise in the incidence of HA associated with malignancies and their treatment, including HA from liver metastasis and as a consequence of transarterial chemoembolization (TACE) or radiofrequency ablation. Mortality was as high as 75%-80% in the early 1900s, but it has since dropped significantly to 10%-40% now. This is owing to advancements in antibiotic therapy and interventional methods for treating HA.

The development of new radiologic techniques, improvements in microbiologic identification, advancements in drainage procedures, and improved supportive care have lowered mortality by 5-30%. However, the incidence of liver abscess has remained rather stable. Untreated, this infection is always lethal. [11]

Asbāb (Causes)

The reasons are: [12,13]

- *Muzmin Pechish* (chronic dysentery)
- An irregular diet.
- *Darba-o-Saqta'-i-Jigar* (liver injury)
- *Ta'affun al Dam* (toxaemia)
- *Kathrat-e-Sharab Noshi* (excessive alcohol intake)
- *Hisat-al-Mirarah* (Cholelithiasis)
- *Sū' Mizāj al-Kabid*
- *Warm-e-Zaida-Aa'war* (Appendicitis)
- *Dukhool-e-Ajsaam-e-Ghareeba* (Entry of foreign bodies in the liver)

Mahiyat – E- Marzi (Pathogenesis)

Dubayla al-Kabid is a deposition of pus in the liver. [14,15,16] *Warm-e-jigar harr* (hot liver inflammation) can be produced by both exterior stimuli, such as injury or damage, and internal factors, such as the infiltration of abnormal bilious or sanguine humours that penetrate and become lodged in liver tissues. Sometimes, accumulating waste materials in the liver causes *Imtilā'* (congestion) and *Waram* (inflammation). Occasionally inflammation goes away itself, and the symptoms minimize. It may turn into *Ṣadīd*

(pus), forming a *Dubayla* (abscess). [4] If it is large, it is called *Dubayla*, while *Khurāj* refers to small ones. It is more prevalent in warmer places. The right lobe is the most afflicted region of the liver. It may be a single or multiple abscesses. [12, 17] Chills are frequently associated with the rupture of an abscess. After rupture of an abscess, pain and pressure gradually decrease, and purulent discharge may come along with *Hayḍa* (diarrhoea) or *Qay* (vomiting).

However, if the abscess is huge and abruptly discharges its contents, the patient's strength may collapse, resulting in catastrophic problems.

It occasionally hardens and becomes a solid mass. When the inflammation begins to subside, the symptoms become milder. However, when it starts to shrink and harden, it can cause bloody and pus-filled vomiting and diarrhoea. When it hardens, the body's overall condition deteriorates, including weakness of digestion and *Butlan al-Iштиha* (loss of appetite). [4]

If many abscesses are found in the *Bab-al-kabid* (porta hepatis), then the prognosis will be poor. [12]

Sign and Symptoms [12,13]

- *Hummā* (Fever with chills and rigours)
- Abdominal pain in the upper right region
- Night sweating
- *Tukhma* (Indigestion)
- Generalised weakness
- Excessive thirst
- Painful breathing

Anjam (Fate of the disease)

If pus is discharged through the Intestines and Anus, it often brings relief. However, if it spreads to the *Ri'atayn* (Lungs), *Ghisha' al-Ri'a* (Pleura), *Ghishā'-i-Qalb* (Pericardium), or *Al-Aqlā* (Ribs), the outcome is usually bad. [12]

Sometimes, after inflammation in the *Bab-ul-Kabid* (porta hepatis), pus forms, causing the walls of the porta hepatis to thicken and causes swelling in the surrounding structures. Sometimes the venous blood in the porta hepatis clots and forms small clots.

These clots break off and travel through the bloodstream to the *Ri'atayn* (lungs), *Dimāgh* (brain), *Al-Fiqār* (vertebrae), and *Mafāṣil* (joints), where they cause secondary abscesses.

Occasionally, abscess material reaches to different nearby organs of the liver abscess, and these affected organs adhere to the abnormal surface of the liver. The pus erodes the intermediate structures, creating an opening through which it spreads from the liver to other organs. [17]

Tashkhīṣ (Diagnosis)

The diagnosis of liver abscess is not difficult if there are clear signs of an abscess. However, if the symptoms are not clear, then it becomes necessary to diagnose it through a *Sula'a* (liver tumour). In the presence of a tumour, some sound may be produced or not, but in the presence of an abscess, a friction sound can be heard. Sometimes an abscess has a pulsating (throbbing) sensation similar to a pulse, whereas a *Sula'a* (tumour) does not have. [17]

Usool-e-Ilaj (Principles of management) [12,16]

- Eliminate the root cause.
- In mild cases, reduce the fever with cooling and sweating-inducing medicines.
- Lay the patient down comfortably or apply a warm compress to the liver area.
- Uses of *Daf-i-Ta'affun*, *Muḥāfiṣ-i-Jigar* and *Muqawwī-i-Jigar Advia*.
- If the pain is severe, apply *al-'Alaq* (leeches).
- In case of severity, perform *al-'Amal* (surgery).
- If the *Marḍ* (disease) is due to another cause, treat that *Asbāb* cause.
- Protect strength through light foods (easily digestible). e.g. *Hāreerāh* (Prepared with refined wheat flour, almond oil, and sugar)

DISCUSSION

In Unani medicine, the liver (Jigar) is considered a vital organ, serving as the seat

of the *Quwat-e-Tabaiyah* (vegetative faculty), responsible for metabolism (*Istehalah*) and the production of *Akhlāt* (humours). A disturbance in liver function affects the entire body, causing nutritional deficiencies and organ weakening. One of the critical liver pathologies is *Dubayla al-Kabid*, or liver abscess, characterized by the accumulation of pus due to unresolved *Warm* (inflammation), often resulting from *Su-e-Mizaj* (abnormal temperament) or other pathological conditions.

The pathogenesis begins with *Warm-e-Harr* (hot inflammation) triggered by external trauma or internal infiltration of abnormal humours, which can convert into *Ṣadīd* (pus), forming an abscess. If large, it is called *Dubayla*; if small, *Khurāj*. Rupture of the abscess may result in relief or, in severe cases, catastrophic outcomes like dissemination to the lungs, brain, or joints. The condition is more prevalent in warmer regions, especially where sanitation is poor. Clinically, patients present with fever, chills, right upper abdominal pain, sweating, indigestion, and respiratory discomfort. Diagnosis is based on clinical signs, percussion, and differentiating features from liver *Sula'a* (tumours). Management includes removing the root cause, using hepatoprotective and anti-putrefactive Unani drugs, supportive nutrition, and surgical drainage in severe cases.

Modern epidemiological data support the seriousness of liver abscess. Despite advancements in treatment, mortality remains significant if not promptly managed.

CONCLUSION

In the Unani system of medicine, the *Jigar* (liver) is considered a central organ responsible for vital physiological processes such as *Istihāla* (metabolism) and production of *Akhlāt* (humours) etc. Liver abscess, known as *Dubayla al-Kabid*, is a severe pathological condition characterised by a localised collection of pus resulting from *Warm-e-Jigar* (inflammation), particularly of the hot type. It typically arises from various causes, including chronic dysentery,

liver trauma, excessive alcohol intake, and biliary or portal infections. The right lobe of the liver is most frequently affected, and larger *Dubayla* (abscesses) present a more severe prognosis than smaller ones (*Khurāj*). Clinical symptoms include *Hummā* (fever), right upper abdominal pain, night sweats, *Tukhma* (indigestion), and generalised weakness. The progression of untreated abscesses may lead to rupture and secondary complications in vital organs such as the lungs, brain, and heart. Modern epidemiological data show that despite a decline in mortality due to improved diagnostic and interventional approaches, the incidence of hepatic abscesses has remained stable, particularly in regions with poor sanitation. Early diagnosis using clinical signs and diagnostic tools is crucial for effective management.

Declaration by Authors All authors have accepted responsibility for the entire content of this manuscript and approved its submission

Ethical Approval: None

Acknowledgement: The authors would like to sincerely thank Mr. Ehtesham, the chief librarian, and Mr. Jafar, the library attendant, at the Central Library of the National Institute of Unani Medicine, Bangalore, for their valuable support in providing essential materials. Additionally, the authors appreciate the meticulous work of the reviewers and the publisher in refining the manuscript.

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

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How to cite this article: Rushda Khatoon, Ahtesham Ahamad, Azizur Rahman, Humera Zaki. Understanding of *Dubayla al-Kabid* (liver abscess) in perspective of Unani system of medicine. *Int J Health Sci Res.* 2025; 15(7):86-90. DOI: [10.52403/ijhsr.20250710](https://doi.org/10.52403/ijhsr.20250710)
