Scholars Academic Journal of Biosciences
Abbreviated Key Title: Sch Acad J Biosci
ISSN 2347-9515 (Print) | ISSN 2321-6883 (Online)
Journal homepage: https://saspublishers.com
NLM ID:101629416
OPEN ACCESS
Unani Medicine

Balghamī Dyscrasia in Amrāḍ-I-Niẓām-I-Haḍm: Pathogenesis and Pharmacodynamic Rationale of Khāṣṣ Balghamī Adwiya

Dr. Md Fahad[1]*, Dr. Md Waqui Ahsan[2], Dr. Jamal Akhter[3], Dr. Md Tanwir Alam[4]

[1,2] PG Scholar, Department of Kulliyat, Govt. Tibbi College & Hospital, Patna, India
[3,4]Associate Professor, Department of Kulliyat, Govt. Tibbi College &Hospital, Patna, India

DOI: https://doi.org/10.36347/sajb.2025.v13i08.019 | **Received:** 26.06.2025 | **Accepted:** 19.08.2025 | **Published:** 22.08.2025

***Corresponding author:** Dr. Md Fahad
PG Scholar, Department of Kulliyat, Govt. Tibbi College & Hospital, Patna, India

Abstract | **Review Article**

The Unani concept of *Balgham* (phlegm) occupies a central place in the understanding of *Amrāḍ-i-Niẓām-i-Haḍm* (digestive disorders), particularly where the *Mizāj* inclines towards *Sard wa Ratab* (cold–wet temperament). Classical authorities such as Jalīnūs, Ibn Sīnā (*Al-Qānūn fī al-Ṭibb*), and Zakariyyā al-Rāzī describe *Balghamī maddah* as a viscid, sluggish humor that, when produced in excess or altered in quality (*mufriṭ* or *ghair-ṭabī'ī*), impairs the *Quwwat-e-Hādima* (digestive faculty), obstructs intestinal channels, and dulls gastric heat (*harārat-e-ghareziya*). This imbalance manifests in a spectrum of digestive ailments, from chronic indigestion and flatulence to gastritis, constipation-predominant syndromes, and sluggish bowel states. Unani therapeutics prescribes *Khāṣṣ Balghamī Adwiya* - drugs with specific phlegm-resolving actions-grounded in the principles of *Ilājbil-Ḍidd* (treatment by opposition), *Tanqiya* (evacuation), and *Ta'dīl-e-Mizāj* (temperament correction). Classical formularies such as *Makhzan al-Adviyah* (Hakīm Najmul Ghani) and *Bayaz-e-Kabir* detail the use of *Muḥallil* (resolvent), *Muṣaffī* (purifier), *Mulaṭṭif* (attenuant), and *Muharrik-e-Harārat* (stimulant of gastric heat) drugs-examples include *Zanjabeel* (Zingiber officinale), *Filfil Siyah* (Piper nigrum), *Saqrub*, and *Arq-e-Awāmis*. This review synthesizes classical doctrines with contemporary biomedical research (2010–2025) that has begun to validate the pharmacological profiles of these drugs-demonstrating actions such as prokinetic effects, mucolysis, antioxidant defense, and modulation of gastric secretions. The paper explores how Unani descriptions of viscous cold phlegm parallel modern notions of mucus hyperviscosity, delayed gastric emptying, and low-grade mucosal inflammation, thereby providing a conceptual bridge between humoral theory and modern gastroenterology. By integrating literary exegesis of canonical Unani texts with critical appraisal of recent experimental and clinical evidence, this review reaffirms the enduring therapeutic relevance of *Khāṣṣ Balghamī Adwiya* and highlights their potential role in developing integrative, evidence-informed protocols for digestive health.

Keywords: Unani medicine, *Balgham,* gastrointestinal disorders, *Khāṣṣ Balghamī Adwiya*, humoral imbalance, *Muḥallil,* Ibn Sīnā.

INTRODUCTION

Disorders of the digestive system (*Amrāḍ-i-Niẓām-i-Haḍm*) represent a significant proportion of global morbidity, ranging from functional disturbances to structural diseases. The Global Burden of Disease (GBD) 2019 study estimated ~443.5 million incident digestive disease cases and ~2.56 million deaths worldwide, highlighting their substantial health impact [1]. Among functional gastrointestinal disorders-today termed "disorders of gut–brain interaction" (DGBIs)-functional dyspepsia (FD), irritable bowel syndrome (IBS), and functional constipation (FC) are most prevalent. Meta-analyses report a global FD prevalence of 8.4% overall (Rome IV ≈ 6.8%) [2], IBS prevalence of 3.8% with Rome IV and 9.2% with Rome III [3], and FC prevalence of ~10% using Rome IV criteria [4].

In India, community-based studies indicate IBS prevalence between 0.4% and 4.2%, varying with diagnostic criteria and methodology [5]. Dyspepsia and constipation surveys reveal similarly wide ranges, influenced by dietary habits, Helicobacter pylori endemicity, and socio-cultural factors [6]. These statistics illustrate both the epidemiological weight and the heterogeneous presentation of digestive disorders in different populations.

Within the Unani medical framework, such conditions are often explained through derangements of

humoral balance (*akhlāṭ*). *Balgham* (phlegm)-classified as cold and moist (*sard wa ratab*)-when produced in excess or altered in quality (*Balghamī maddah*) is believed to impair the *Quwwat-e-Hādima* (digestive faculty), diminish *Ḥarārat-e-Gharīziyya* (innate heat), slow intestinal motility, and thicken gastrointestinal secretions [7]. Ibn Sīnā in *al-Qānūn fī'l-Ṭibb* describes how cold-moist predominance leads to gastric sluggishness, loss of appetite, nausea, bloating, and constipation [7], while al-Rāzī's *al-Ḥāwī* records therapeutic regimens aimed at dissolving and evacuating excess phlegm from the gastrointestinal tract [8]. Khorāsānī's *Makhzan al-Adviah* further systematizes drugs with Muḥallil (resolvent), Mufattiḥ (deobstruent), Muqawwi-e-Miʿda (stomachic), and Mus'hil-e-Balgham (phlegm-purgative) actions specifically for *Balghamī* disorders [9].

Modern pharmacological research demonstrates remarkable concordance between the actions ascribed to certain *Khaṣṣ Balghamī Adwiya* in classical texts and their experimentally observed effects. For example, Zingiber officinale (*Zanjabeel*) enhances gastric emptying and exerts antiemetic activity [10], Piper nigrum (*Filfil Siyah*) stimulates digestive secretions and improves bioavailability of co-administered drugs [10], Foeniculum vulgare (*Badiyan*) shows carminative and antispasmodic actions [10], and Terminalia chebula (*Haleela*) promotes bowel motility and relieves constipation [10].

This review aims to integrate classical Unani pathophysiology of *Balghamī* imbalance in digestive disorders with contemporary biomedical insights, providing a conceptual bridge that not only preserves the theoretical elegance of the Unani framework but also facilitates evidence-based evaluation and application in modern clinical practice.

METHODOLOGY

The present review has been carried out by critically studying classical Unani literature along with modern biomedical research in order to understand *Balghamī dyscrasia* in gastrointestinal disorders and the pharmacodynamic rationale of *Khāṣṣ Balghamī adviya*.

Authentic Unani texts such as *Al-Qānūn fī'l-Ṭibb* (Ibn Sīnā), *Kitāb al-Ḥāwī* (al-Rāzī), *Zakhīrah Khwārazmshāhī* (Jurjānī), and *Makhzan al-Adviah* (Aghīlī Khorāsānī) were consulted for descriptions related to *Balghamī mizāj*, gastrointestinal pathology, and therapeutic actions of single as well as compound drugs.

In addition, a search of modern scientific databases (PubMed, Scopus, ScienceDirect and Google Scholar) was undertaken using relevant keywords such as *Balghamī disorders, gastrointestinal dyspepsia, functional GI disorders, Unani medicine, herbal pharmacology* and *polyherbal formulations*. Peer-reviewed articles published were included, while non-relevant or non-reliable sources were excluded.

The collected material was analysed thematically. Unani concepts of *su'-e-mizāj Balghamī* were correlated with present-day understanding of gastric hypomotility, dyspepsia and secretory dysfunction. Similarly, the pharmacological actions of *Khāṣṣ Balghamī adviya* such as *muḥallil, hazim* and *mufatteḥ-e-sudad* were interpreted in light of contemporary findings regarding prokinetic, carminative, antioxidant and enzyme-modulating effects.

This method ensured a comprehensive approach by integrating philosophical foundations of Unani medicine with current biomedical evidence, thereby strengthening the scientific rationale of *Balghamī-specific interventions* in gastrointestinal disorders.

REVIEW OF LITERATURE

Anatomy of the Human Gastrointestinal Tract (GIT) in Unani Perspective

The human gastrointestinal tract (GIT), or *Aʿḍā'-e-Niẓām-i-Haḍm*, is the organ system responsible for ingestion, digestion, absorption, and excretion of food. In Unani medicine, it comprises several organs, each with a specific structural and functional role. The major anatomical components include the *Fam* (mouth), *Halq* (pharynx), *Marī* (oesophagus), *Miʿda* (stomach), *Amʿā'* (intestines), *Kabid* (liver), *Marāra* (gallbladder), *Ṭiḥāl* (spleen), and *Bānqarās* (pancreas) [7,8]. The oral cavity (*Fam*) contains the teeth (*Asnān*) and tongue (*Lisān*), which initiate mechanical and gustatory processing of food. The stomach (*Miʿda*) is described as a muscular, sac-like structure situated in the epigastric region, functioning as the primary site for transformation of ingested food into *Kaylūs* (chyle) [7].

The intestines (*Amʿā'*) are divided into *Amʿā' al-Diqāq*(small intestine) and *Amʿā' al-Ghilāẓ*(large intestine), structurally adapted for nutrient absorption and waste propulsion. Accessory digestive organs like the liver (*Kabid*) and gallbladder (*Marāra*) are considered vital in producing and storing bile (*Safraʾ*), essential for fat digestion [8,9].

Physiology of the GIT in Unani Medicine

In Unani physiology (*ʿIlm al-Afʿāl*), digestion (*Hazm*) is a multi-stage process involving both mechanical and chemical transformation of food. Ibn Sīnā described four sequential stages of digestion - *Haḍm Miʿdī* (gastric digestion), *Haḍm Kabidī* (hepatic digestion), *Haḍm 'Urūqī* (vascular digestion), and *Haḍm 'Uḍwī* (tissue digestion) - each governed by specific *Quwwat* (faculties) [7]. The *Quwwat Hāḍima* (digestive faculty) in the stomach initiates breakdown of food with the help of gastric heat (*Harārat-e-Gharīziyah*) and moisture (*Ruṭūbat-e-Lāzima*) [8].

According to Unani thought, each digestive organ is composed of specific *Ruṭūbat-e-Ghālibah* (predominant moistures) which influence its structure and function. The stomach (*Miʿda*) is predominantly composed of *Ruṭūbat-e-Lahmiyyah* (muscular moisture), enabling churning movements, whereas the liver (*Kabid*) contains *Ruṭūbat-e-Dahniyyah* (oily moisture) that facilitates bile production [8,9]. The balance of *Akhlāṭ* (humors) -*Dam*, *Balgham*, *Safraʾ*, and *Saudāʾ*- is essential for optimal digestive function. An excess of *Balgham* (phlegm) within these organs is believed to impair digestion, slow gastric emptying, and cause various *Amrāz-e-Niẓām-e-Hazm* (digestive disorders) [7–9].

Unani Philosophies on *Aʿḍāʾ-e-Niẓām-i-Haḍm*

In Unani medicine, *Aʿḍāʾ-e-Niẓām-i-Haḍm* (organs of the digestive system) are regarded as an interconnected network that transforms ingested food into *Akhlāṭ* (humours) and subsequently into *Aʿḍāʾ* (tissues) essential for life and vitality. Classical authorities such as *Ibn Sīnā* and *Al-Rāzī* described digestion as a sequential process - *Haḍm Miʿdī* (gastric digestion), *Haḍm Kabidī* (hepatic digestion), and *Haḍm ʿUrūqī* (vascular digestion) *Haḍm ʿUḍwī* (organic digestion) - each stage being dependent on the preceding one for completion [7,8]. The primary structures include the *Miʿda* (stomach), *Amʿāʾ* (intestines), *Kabid* (liver) and *Ṭiḥāl* (spleen), with accessory organs like the *Marāra* (gall bladder) and *Bānqarās* (pancreas, recognised in later Unani adaptations) [7,10,11].

According to the Canon of Medicine, the *Miʿda* is the initial site for mechanical and biochemical breakdown of food, governed by the Quwwat-e-Hāzima (digestive faculty), Quwwat-e-Masika (retentive faculty), and Quwwat-e-Dāfiʿa (expulsive faculty) [7,10]. The *Kabid*, described by Jurjani as "the chief workshop of the body," plays a pivotal role in Haḍm Kabidī , where *Ruṭūbat Ūlā* (primary fluid) is refined into the four humours - *Dam* (sanguine), *Balgham* (phlegmatic), *Safra* (choleric), and *Sauda* (melancholic) - in precise proportions [7,8,11].

From the perspective of *Mizāj* (temperament), each organ exhibits dominant qualities (*Kayfiyāt*) and specific *Ruṭūbat* (moistures). The stomach has *Ruṭūbat-e-Bārida Raṭba,* aiding in softening and moistening of ingested food, while the liver has *Ruṭūbat-e-Ḥarāra Raṭba,* for transformation and metabolism [7,8,12]. Imbalance in these moistures can cause *Suʾ-e-Mizāj*, such as *Suʾ-e-Mizāj Balghamī* in the stomach or intestines, predisposing to conditions like *Nazla-e-Muzmin* (chronic catarrh), *Qulanj Balghamī* (phlegmatic colic), or *Zīq-un-Nafs Balghamī* (phlegmatic asthma) [7,9,12].

The spleen (*Ṭiḥāl*), although indirectly involved in digestion, regulates the quality and distribution of *Sauda* to maintain humoral balance [8,11]. The intestines (*Amʿāʾ*) serve as the final site for absorption and excretion, relying on the harmonious function of *Quwwat-e-Jaziba* (absorptive faculty) and *Quwwat-e-Dāfiʿa* [7,10,12]. This integrated Unani perspective views the digestive system not merely as a mechanical apparatus but as a dynamic interplay of faculties (*Quwā*), temperaments (*Mizāj*), and moistures (*Ruṭūbat*), operating under the holistic governance of *Tabiʿat* (the body's inherent healing power) [7,8,11,12].

Unani Pathophysiology of *Balghamī* Imbalance in Digestive Diseases

In Unani doctrine, *Balgham* (phlegm) is *barid wa ratab* (cold–moist) by temperament and is considered one of the four essential *akhlāṭ* (humours) formed after digestion of food in the liver (*Haḍm Kabidī*) [7,8]. In a balanced state, *Balgham* nourishes tissues, moistens organs, and acts as a reserve nutrient, especially in cold seasons and during fasting [7]. However, when *Balgham* becomes excessive (*kathrat-e-balgham*) or qualitatively altered (*fasād-e-kaifiyat*), due to inappropriate diet, excessive sleep, lack of physical activity, or climatic factors, it disrupts the *mizāj* of the digestive organs [8,9].

Classical physicians describe that excess *Balgham* suppresses *ḥarārat-e-gharīziyyah* (innate heat), leading to weakness of the *Quwwat Hāḍima* (digestive faculty) and *Quwwat Dāfiʿa* (expulsive faculty) [7,8]. Ibn Sīnā in *Al-Qānūn fi'l-Ṭibb* states that the stomach (*miʿda*) in a *Balghamī mizāj* loses its "heat of cooking" (*ḥarārat-e-tabkh*), resulting in incomplete transformation (*adam-e-nuzj*) of ingested food [7]. This incompletely digested material tends to stagnate and putrefy (*Mutaʿaffin*), producing heaviness, bloating, nausea, and reduced appetite.

Al-Rāzī in *Al-Hāwī* explains that thick, cold–moist secretions accumulate on the gastric walls, impeding proper peristalsis and obstructing pyloric outflow, which can progress to *insidād* (obstruction) and *qulanj balghamī* if uncorrected [8]. Jurjānī in *Zakhīra Khwārazm Shāhī* further notes that such *balghamī* predominance may infiltrate the intestinal lumen, causing mucoid stools, constipation-predominant dyspepsia, and colicky pain due to retention of viscous humour [9].

Moreover, in the liver (*kabid*), excess *Balgham* disturbs *Haḍm Kabidī* , producing an imbalance in the proportions of the four humours, with a tendency toward *ghidhā-e-naqis* (imperfect nutrition) [7,9]. This humoural bias may also impair bile production (*ṣafraʾ*), reducing the *ḥarārat-e-tabkh* needed to emulsify fats and facilitate bowel movements [10,11]. In the spleen (*tihāl*), altered *balghamī* load hinders the regulation of *saudaʾ*, indirectly affecting digestion through secondary *mizāj* shifts [8,11].

Thus, classical Unani pathophysiology presents *Balghamī suʾ-e-mizāj* as a central mechanism in many

chronic digestive ailments, beginning with reduced gastric heat, stagnation, and viscous humoural accumulation, and progressing to systemic imbalance in all *A'ḍā'-e-Niẓām-i-Haḍm* if unaddressed [7–11].

Imbalance of *Balgham (Ifrāt-e-Balgham*)

occurs when there is excessive production, improper quality, or sluggish metabolism of this humor. Classical Unani texts attribute such disturbances to the predominance of cold and moist factors in diet, lifestyle, or environment - for example, frequent intake of raw or cold foods, sedentary habits, excessive sleep, and damp climate [7,9,12]. This leads to a weakening of harārat-e-ghareezī (innate heat) and impairment of Quwwa al-Haḍm (digestive faculty), resulting in incomplete digestion and the generation of morbid phlegm (*balgham ghayr-tabā'ī*) [7,8,12].

Within *A'ḍā'-e-Niẓām-i-Haḍm* (digestive system), an excess of *Balgham* causes a viscous, mucilaginous coating over the gastric and intestinal mucosa, which interferes with proper secretion of gastric juices and bile. This state not only delays digestion but also promotes fermentation and putrefaction of food in the gut, producing gas, bloating, and heaviness [7,9]. Ibn Sīnā notes that such a condition can obstruct the natural pathways of nutrient absorption and alter the consistency of chyme, leading to disorders like *su'-e- haḍm balghamī* (phlegmatic dyspepsia), *qasāwat-e-batn* (constipation due to mucus-laden stool), and chronic catarrhal conditions [7,8].

In advanced cases, persistent *balghamī* dominance in the gastrointestinal tract weakens the *kabid* (liver) and *mi'da* (stomach), causing a secondary impact on hepatic metabolism and bile production [8,9]. Jurjānī emphasized that chronic phlegmatic derangement may also predispose to *warm-e-ahshā* (inflammatory swellings of viscera) due to obstruction and stagnation of morbid matter [9]. Furthermore, Ibn Hubal highlighted that retention of abnormal phlegm in the stomach can lead to nausea, vomiting, loss of appetite, and aggravation of wsāwis -e-batn (abdominal discomfort and anxiety) [12].

Drugs and Mode of Action in Balghamī Disorders of the Digestive System

Balghamī disorders of *niẓām-i-haḍm* (digestive system) occur due to predominance of *barūdat* (coldness) and *ruṭūbat* (moisture) in the stomach and intestines, which weakens *ḥarārat-e-gharīzī* (innate heat) and digestion. Clinical features include abdominal heaviness, flatulence, *tukhma* (indigestion), nausea, excessive salivation, and loose stools (*ishāl balghamī*) [1–3]. According to classical Unani scholars, the management of such conditions requires drugs (*adviya*) with hot-dry temperament to restore digestive heat, resolve thick phlegm, dry excess moisture, and strengthen the gastric faculty (*quwwat-e- hāḍima*) [4,5].

Zanjabeel (*Zingiber officinale Roscoe* – Ginger)

- **Mizāj:** ḤārYābis (Hot & Dry) in 2nd degree
- **Daraja:** 2nd
- **Mahiyat:** Root (*rhizome*)
- **Origin:** Herbal
- **Mode of Action:** Described as *ḥāzim* (digestive), *muqawwi-e-miʿda* (stomachic), *mufattiḥ* (deobstruent), and *muḥallil-e-riyāḥ* (resolvent of gases). It dissolves thick phlegm, stimulates gastric secretions, and enhances peristalsis [6,7, 16,20].

Filfil Siyah (*Piper nigrum Linn*. – Black Pepper)

- **Mizāj:** ḤārYābis in 3rd degree
- **Daraja:** 3rd
- **Mahiyat:** Fruit
- **Origin:** Herbal
- **Mode of Action:** Powerful *muḥallil-e-balgham* (phlegm resolvent), *mufattiḥ-e-sudūd* (deobstruent), and *muḥarrik-e-quwā* (stimulant). It clears phlegm, relieves abdominal heaviness, enhances appetite, and increases intestinal motility [8,9, 17,20].

Zeera Siyah (*Carum carvi Linn*. – Black Cumin)

- **Mizāj:** ḤārYābis in 2nd degree
- **Daraja:** 2nd
- **Mahiyat:** Fruit
- **Origin:** Herbal
- **Mode of Action:** *Ḥāzim*, *muḥallil*, *dafʿ-e-nafkh* (carminative). It reduces viscosity of balgham, relieves flatulence, and strengthens gastric heat [10,11, 18,2 0].

Ajwain Desi (*Trachy spermum ammi Linn*. – Ajwain)

- **Mizāj:** ḤārYābis in 2nd–3rd degree
- **Daraja:** 2nd–3rd
- **Mahiyat:** Fruit/Seed
- **Origin:** Herbal
- **Mode of Action:** *Muḥarrik-e-ḥarārat* (stimulant of innate heat), *ḥāzim*, *mufatteḥ*, and *munaffiṣ-e-riyāḥ* (carminative). It relieves indigestion, colic, and bloating while drying excessive moisture [12,13, 18,20].

Ustukhuddus (*Lavandula stoechas Linn*. – Lavender)

- **Mizāj:** ḤārYābis in 2nd degree
- **Daraja:** 2nd
- **Mahiyat:** Aerial part
- **Origin:** Herbal
- **Mode of Action:** *Munqī-balgham* (expels phlegm), *mufattiḥ-e-sudūd*, *muqawwi-e-dimāghwamiʿda* (tonic for brain & stomach). It clears gastric and mesenteric phlegm, relieves heaviness, and improves appetite [14, 15,20].

Asgand (*Withania somnifera Dunal.* – Ashwagandha)

- **Mizāj:** ḤārYābis in 2nd degree
- **Daraja:** 2nd
- **Mahiyat:** Root

- **Origin:** Herbal
- **Mode of Action:** Acts as *muqawwi-e-aʿḍā* (general tonic), *muḥallil* (resolvent), and *muqawwi-e-miʿda*. It restores innate heat, strengthens gastric musculature, and removes chronic phlegmatic obstructions [13,14, 16, 20].

Sandal (*Santalum album Linn*. – Sandalwood)

- **Mizāj:** BāridYābis in 1st–2nd degree
- **Daraja:** 1st–2nd
- **Mahiyat:** Wood
- **Origin:** Herbal
- **Mode of Action:** Used in mixed *balghamī-ḥār* conditions. It is *qabid* (astringent), *muṣaffī* (detoxifier), and *muqawwi-e-maʿida*. It tones the stomach, dries excessive moisture, and purifies sticky phlegm [13,14, 17, 20].

Izkhar (*Cymbopogon jwarancusa Roxb*. – Sweet Rush)

- **Mizāj:** ḤārYābis in 2nd degree
- **Daraja:** 2nd
- **Mahiyat:** Leaf/grass
- **Origin:** Herbal
- **Mode of Action:** *Muqawwi-e-miʿda*, mild *ḥāzim* and *carminative*. Its warm-dry temperament expels gases, activates digestion, and eliminates moist phlegm [13,14, 18, 20].

Table 1: Khas Advia-e-Balgham for Niẓām-e-Hazm Disorders

Drug Name (Arabic/English/ Botanical)	Darjah (Degree)	Mizāj	Mahiyat (Nature)	Mabda	Istʻimālāt (Uses in Balghamī Disorders)	Kaifiyat-e-Asar (Mode of Action)	Ref.
Zanjabeel (Ginger / *Zingiber officinale* Roscoe)	2nd Darjah ḤārYābis	ḤārYābis	Root (rhizome)	Nabātī	Muḥallil-e-Rīyah, Hazim, Muqawwi-e-Miʻda, Dafʻ-e-Nafkh, Muḥarrik-e-Harārat-e-Gharīzī	With moderate heat and dryness, it dissolves viscous Balgham, strengthens gastric Harārat, stimulates gastric secretions, and enhances peristalsis to prevent stagnation.	13 ,16,20
Filfil Siyah (Black Pepper / *Piper nigrum* Linn.)	3rd Darjah ḤārYābis	ḤārYābis	Fruit (seed)	Nabātī	Hazim, Muḥallil-e-Balgham, Mufatteḥ-e-Sudad, Muḥarrik-e-Qūwā	With stronger heat, liquefies thick Balgham, clears Sudād, enhances Harārat for digestion, and stimulates intestinal motility.	13 ,17,20
Zeera Siyah (Black Cumin / *Carum carvi* Linn.)	2nd Darjah ḤārYābis	ḤārYābis	Seed	Nabātī	Muḥallil, Muqawwi-e-Miʻda, Dafʻ-e-Nafkh, Musakhkhin-e-Miʻda	Warms the stomach, thins Balgham, promotes expulsion of gases and waste, and counters excess moistness.	13,18,20
Ajwain Desi (Ajwain / *Trachyspermum ammi* Linn.)	2nd Darjah ḤārYābis	ḤārYābis	Seed	Nabātī	Hazim, Muḥarrik-e-Harārat, Dafʻ-e-Rīyah, Musakhkhin	Restores Harārat-e-Gharīzī, improves digestion, eliminates flatulence, and expels Balgham by drying excessive moisture.	13 ,18,20

Ustukhuddus Lavender / *Lavandula stoechas* Linn.)	2nd Darjah ḤārYābis	ḤārYābis	Flowering tops	Nabātī	Mufatteḥ-e-Sudad, Muqawwi-e-DimāghwaMi‘da, MunqīBalgham	Clears Balgham from brain and stomach, enhances appetite, and sharpens senses by removing dampness.	13 ,15,20
AsgandNagori *Withania somnifera* Dunal.)	2nd Darjah ḤārYābis	ḤārYābis	Root	Nabātī	Muqawwi-e-A‘ḍā, Muḥallil-e-Rīyah, Muqawwi-e-Mi‘da	Boosts metabolism, strengthens Harārat-e-Gharīzī, clears phlegmatic obstructions, and aids nutrient absorption.	13,14,20
Sandal (Santalum album L.)	1st darzahbarid, 1st darzahyabis	BāridYābis	wood	Nabātī	phlegmatic vomiting, acting as a Muqawwī-e-Maʿida, Qabid, Mujaffif, and Muṣaffī	Acts as astringent, strengthens gastric lining, balances excess moisture in Balgham without overheating.	13,14,20
Izkhar (Cymbopogon jwarancusa)	2nd darzahḤār, Yābis	ḤārYābis.	Aromatic grass	Nabātī	*Muqawwī-e-Miʿda*, mild carminative	desiccates phlegm, improves digestion by warming gastric temperament	13,14,20

Classical scholars also recommended these drugs in compound formulations (MurakkabAdvia) for Balghamī disorders of Niẓām-e-Hadm.

MurakkabAdvia (Compound Formulations) in Balghamī Disorders of Niẓām-e-Hazm

While single drugs play a pivotal role in rectifying deranged temperament and dissolving accumulated Balgham, Unani physicians have also emphasized the therapeutic superiority of compound formulations (*murakkab advia*). These formulations are designed to synergistically enhance the efficacy of single drugs by combining hot–dry temperament *(ḥār yābis*) agents with corrective adjuncts (*musleh*), thus ensuring both potency and safety. In gastrointestinal disorders caused by excessive *barūdat* and *ratūbat* - manifesting as *su'-e-hadm*, indigestion, loss of appetite, heaviness, flatulence, and *balghamī ishāl* - several classical formulations are widely prescribed.

1. *Jawārishāt*

- *Jawarish Kamooni* is one of the most frequently prescribed formulations for balghamī indigestion and flatulence. Its chief ingredients include Zeera Siyah (Carum carvi Linn.), Ajwain Desi (Trachyspermum ammi Linn.), Zanjabeel (Zingiber officinale Roscoe), and Filfil Siyah (Piper nigrum Linn.). These act as muḥarrik-e-ḥarārat, muḥallil balgham, dafʿ-e-nafkh, and muqawwi-e-miʿda, enhancing gastric heat, promoting peristalsis, and reducing viscosity of phlegm. Classical sources describe its benefits in cold–moist dyspepsia, abdominal distension, and anorexia [13,14,16,20].
- Jawarish Jalinus also has a role in chronic su'-e-hazm and phlegmatic dyspepsia, as it strengthens quwwat-e-hazima while cleansing the stomach from excess balgham (14,17,20).

2. Ḥabb (Pills/Tablets)

- Ḥabb-e-Hindi contains Zanjabeel, Filfil Siyah, and Ajwain, working synergistically as mufatteḥ sudūd, muhallil, and musakhkhin. It is particularly beneficial in chronic colic, flatulence, and indigestion caused by phlegmatic dominance (13,14,18,20). Its pill form ensures better preservation of potency and prolonged release in the stomach.
- Ḥabb-e-Kabid Naushadri is another important formulation prescribed for hepatic and gastric phlegmatic congestion, functioning as munqī-e-balgham wa safra, thus improving metabolism and digestion (14,20).

3. Arq (Distillates)

- Arq-e-Zeera and Arq-e-Ajwain are used in flatulence, nausea, heaviness, and weak

digestion due to their carminative, muhallil, and hazim actions (13,14,20).

- Arq-e-Sandal, despite its barid yābis temperament, is prescribed in mixed balghamī–ḥar gastric conditions with excessive heat and moisture. It acts as muqawwi-e-maʿida, qabid, and musaffī, reducing excessive gastric secretions and balancing ruṭūbat (13,14,20). Its dual role in both cooling and toning makes it unique in Unani therapeutics.

4. Safoof (Powders)

- Safoof-e-Muhazzil and Safoof-e-Zanjabeel are recommended for su'-e-hazm balghamī. Their powdered form ensures rapid onset of action and direct stimulation of harārat-e-ghareezi, improving appetite and preventing accumulation of balgham (14,18,20).

Therapeutic Rationale

These compound formulations are not mere mixtures; they are carefully balanced combinations where the temperament of each drug is harmonised to target the pathological dominance of balgham. They act through multiple mechanisms:

- Enhancing gastric heat (muḥarrik-e-ḥarārat)
- Drying excess moisture (mujaffif)
- Opening obstructed channels (mufatteḥ sudūd)
- Strengthening digestion and metabolism (muqawwi-e-miʿda, muqawwi-e-aʿda)
- Expelling gases and phlegm (dafʿ-e-nafkh, munaffis, munqī-balgham)

DISCUSSION

The understanding of *Nizām-e-Hazm Balghamī Amrād* (phlegmatic disorders of the digestive system) in Unani medicine is deeply rooted in classical texts, which emphasise the imbalance of Balgham (phlegm) as a predominant etiological factor leading to reduced gastric heat, excessive Ruṭūbat (moisture), and impaired digestion (*Su'-e-Hazm Balghamī*). Authors like Ibn Sīnā in *Al-Qānūn fī al-Ṭibb* and Al-Majūsī in *Kāmil al-Ṣanāʿa al-Ṭibbiyya* have described the underlying pathophysiology as a cold and moist derangement of *Mizāj*, leading to weak gastric quwwat (digestive power) and accumulation of pathogenic phlegm, thereby necessitating the use of drugs with *Har Yabis* temperament to restore balance [12,15].

The selected drugs in this review-*Filfil Siyah* (*Piper nigrum Linn.*), *Zeera Siyah* (*Carum carvi Linn.*), *Ajwain Desi* (*Trachyspermumammi Linn.*), *Ustukhuddus* (*Lavandula stoechas Linn.*), *Asgand Nagori* (*Withania somnifera Dunal.*), *Sandal* (*Santalum album L.*), and *Izkhar* (*Cymbopogon jwarancusa*)-have all been traditionally recommended in classical Unani pharmacopoeias such as *Bustan-ul-Mufradat*, *Kitab al-Mukhtarat fi al-Tibb*, and *Kulliyat-e-Advia* for their capacity to modulate gastric heat, absorb excess moisture, and dissolve phlegmatic matter [11,13,14,16,18].

Modern pharmacological research supports these classical claims. *Piper nigrum* has been shown to possess carminative, digestive stimulant, and anti-inflammatory properties through the action of piperine, which enhances gastric enzyme secretion and reduces intestinal transit time [21,22]. *Carum carvi* demonstrates significant antispasmodic and antimicrobial activities, which aligns with its traditional use as a *Muqawwī-e-Maʿida* and *Mufatteh Sudad* (digestive tonic and obstruction remover) in phlegmatic dyspepsia [23]. *Trachyspermum ammi* is reported to contain thymol, which has potent anti-bloating and anti-colic effects, supporting its classical role in expelling cold humours from the stomach [24].

Likewise, *Lavandula stoechas*-described by Ibn Hubal and Majusi as a *Mufatteh* and *Munaffis Balgham*-is validated by studies showing its neuroprotective and antioxidant effects that indirectly support digestive functions through nervous system modulation [25]. *Withania somnifera*, traditionally classified as Har Yabis in low degree, improves gastrointestinal motility and reduces inflammation, correlating with modern studies on its adaptogenic and anti-inflammatory mechanisms [26]. *Santalum album*, although Barid Yabis, acts as a *Qabid* and *Mujaffif*, useful in excessive gastric moisture and diarrhoea, with contemporary studies indicating its antimicrobial and anti-secretory potential [27]. Finally, *Cymbopogon jwarancusa*, recognised in classical Unani texts as *Muqawwī-e-Maʿida* and *Musaffī*, has been confirmed to possess antimicrobial and carminative effects [28].

Alongside single drugs, compound formulations (murakkab adviya) hold a central place in managing *Balghamī amrād-e-hadm*. Classical formulations such as *Jawārish Kamoonī*, *Jawārish Zaroonī*, and *Safoof-e-Ajwain* were designed to synergise the actions of multiple herbs. *Jawārish Kamoonī*-containing cumin, ginger, black pepper, and ajwain-not only resolves phlegmatic obstruction but also strengthens the gastric faculty and prevents recurrence of digestive sluggishness [11,31]. Studies on polyherbal preparations in modern medicine have confirmed similar synergistic effects, where combinations of digestive stimulants and carminatives significantly improve functional dyspepsia and irritable bowel syndrome [32,33]. For example, Singh et al. (2013) reported improved gastric motility and symptom relief in patients using a multi-herbal formulation, validating the pharmacodynamic rationale of compound Unani preparations [32].

Another important dimension of *Khāṣṣ Balghamī adviya* is their influence on systemic metabolism. By enhancing absorption and assimilation, these drugs prevent accumulation of undigested

metabolites-a mechanism that resonates with the Unani description of preventing *ghalaba-e-balgham* (dominance of phlegm) in blood and tissues

The synthesis of classical wisdom with current biomedical research underscores the relevance of Unani pharmacology in managing Balghamī disorders of the digestive system. The alignment between traditional *Mizāj* - based prescribing principles and modern pharmacological evidence suggests a valuable integrative approach in gastrointestinal therapeutics. This correlation not only validates Unani formulations but also provides a basis for their inclusion in contemporary herbal medicine research, opening avenues for clinical trials and standardisation of dosage forms to ensure safety and efficacy [29,30].

Unani concept of *Balghamī amrāż* in the digestive system demonstrates remarkable harmony with modern medical understanding of functional gastrointestinal disorders. The rational use of *Khāṣṣ Balghamī adviya*, whether as single or compound drugs, is supported not only by centuries of empirical evidence but also by recent pharmacological and clinical studies. Their ability to enhance motility, stimulate digestive enzymes, and harmonise gut function underscores their therapeutic importance. Thus, the integration of Unani philosophy with contemporary research provides a compelling framework for effective management of phlegmatic digestive disorders.

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