

Role of Sū'-i- Mizāj in Etiopathogenesis of Belching (*Jushā*)

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ABSTRACT

Belching (*Jushā*) is a common gastrointestinal symptom that often results from digestive disturbances. In Unani medicine, the concept of Sū'-i- Mizāj (derangement of temperament) plays a pivotal role in understanding the etiopathogenesis of such disorders. This paper explores how alterations in temperament (*mizāj*)—particularly in the stomach and liver—contribute to the occurrence and characteristics of belching. It integrates classical Unani literature with contemporary physiological understanding to provide a comprehensive etiological framework, presenting its etiology, pathogenesis, symptoms, and diagnostic approaches.

Keywords: *Jushā*, Belching, Mizāj, Temperament, Sū'-i- Mizāj, Dystemperament, Unani Medicine, Gastrointestinal Disorders.

1. Introduction

Belching (*Jushā* or *Ḍakār*) is a common physiological process in which air from the stomach is expelled through the mouth. While often benign, persistent or excessive belching is regarded in Unani medicine as a sign of underlying gastric or systemic imbalance. Traditional Unani physicians interpreted belching not merely as a mechanical expulsion of gas but as a diagnostic symptom, reflecting disruptions in the digestive process, temperament (*mizāj*), or the equilibrium of the four humors (*akhlāt*). Among the earliest and most influential discussions on the subject are those of Ibn Sina (Avicenna), who categorized belching by its odor, frequency, and associated causes, linking it to improper digestion and humoral imbalance. He introduced the concept of excessive belching (*Jushā' al-Mufrat*) as a pathological state arising from dystemperament (*Sū'-i-Mizāj*) or humoral accumulation in the stomach and adjacent organs.

Other notable physicians such as Jurjani, Ibn Rushd, Ibn Habbal Baghdadi, Akber Arzani, Azam Khan, and Kabeeruddin contributed to the evolving clinical understanding of belching, elaborating on its causes, classifications, and therapeutic significance. They emphasized the role of digestive strength, the nature of ingested food, the movement of gas (*riyāḥ*), and disturbances in the expulsive faculties (*quwwat-e-dāfi'ah*) of the gastrointestinal tract. Arzani and Azam Khan, in particular, underscored the importance of gastric flatulence (*nafakh-e-mi'da*) and its impact on upper digestive symptoms, including belching. The condition was seen as more than a local disturbance—it was a reflection of the stomach's altered *mizāj* caused by deviation in humoral balance, whether cold (*Sū'-i-Mizāj-e-Bārid*) or hot (*Sū'-i-Mizāj-e-Ḥār*). In contemporary contexts, excessive belching continues to appear as a significant complaint in gastrointestinal clinics, often associated with indigestion, nausea, and psychosocial distress. By revisiting classical Unani texts and exploring the etiopathogenesis of belching through the lens of *Sū'-i-Mizāj*, this paper aims to provide a comprehensive understanding of its diagnostic, pathological, and therapeutic dimensions within the Unani system of medicine.

2. Definition and Classification

Belching (*Jushā*), known as *Ḍakār*, *Jushā*, or *Arwāḥ* in Unani medicine, has long been considered more than a simple physiological act. It represents a significant indicator of gastric health and is often associated with digestive dysfunction when it becomes excessive or persistent. The understanding of belching in the Unani tradition finds its earliest roots in the teachings of Ahmad ibn Sahl al-Masihi and Abu Bakr al-Razi, but more structured discussions emerge with later physicians such as Ahmad al-Hasan al-Jurjani, Ibn Sina (Avicenna), Ibn Rushd (Averroes), Ibn Habbal Baghdadi, Hakim Muhammad Akbar Arzani, Hakim Muhammad Azam Khan, and Hakim Kabeeruddin. Jurjani (d. 1136 CE) describes belching (*Jushā*) as a sound generated when air ascends from the stomach due to internal pressure, reaching the mouth and producing an audible noise. This early description emphasizes the natural force involved in the upward expulsion of gas and recognizes belching as a normal physiological response unless excessive [1].

Following Jurjani, Ibn Sina (980–1037 CE) provided the most detailed and systematic account of belching. In *Al-Qānūn fī al-Ṭibb*, he identified three types of gaseous activity related to digestion: ascending gas (*Jushā*) expelled through the mouth as belching; descending gas expelled via the anus; and trapped gas, which remains in the abdomen and causes bloating or discomfort without being released.¹ Avicenna classified excessive belching as *Jushā' al-Mufrat*, a pathological condition with roots in improper diet, weak digestion, and imbalances in bodily humors (*Akhlāt*).¹ He elaborated the digestive process in two main stages: the first being gastric digestion occurring in the stomach, and the second being hepatic digestion in the liver, where nutrients are transformed into the four primary humors—blood (*Dam*), phlegm (*Balgham*), yellow bile (*Ṣafrā'*), and black bile (*Sawdā'*). These humors circulate throughout the body via the vessels, and any qualitative or quantitative deviation leads to a disturbance in the organ's temperament (*Mizāj*), resulting in *Sū'-i-Mizāj* (dystemperament), which can be either cold (*Sū'-i-Mizāj Bārid*) or hot (*Sū'-i-Mizāj Ḥār*). Avicenna firmly linked disturbances in the stomach's

temperament due to humoral imbalances with the onset of gastrointestinal symptoms including belching and hiccups [3-6]. *Ibn Rushd* (1126–1198 CE) echoed similar views, describing belching as the action of the stomach's expulsive faculty (*Quwwat-e-Dāfi'ah*) that ejects the accumulated gas (*riyāḥ*). His view reinforces the concept of the body's intrinsic ability to expel waste and restore balance, indicating that belching is a function of both physiological necessity and pathological manifestation depending on its intensity and context [7].

Ibn Habbal Baghdadi (12th century CE) contributed further by specifying that belching results from a small amount of air (*Qaleel Riyāḥ*) collecting near the upper opening of the stomach (*Fāme-Mi'da*). He considered its expulsion as not only normal but also beneficial, thus emphasizing the preventative and corrective role of belching in digestive health [8].

In the later classical period, *Hakim Muhammad Akbar Arzani* (18th century CE) elaborated on the concept using regional terminology, referring to belching as *Arwāḥ* in Persian and *Ḍakār* in Hindi. He associated it predominantly with gastric flatulence (*Nafakh-e-Mi'da*), and described it as a condition wherein air rises from the stomach toward the mouth, producing a sound. According to *Arzani's* commentary (*Sharḥ*), this audible expulsion is symptomatic of retained gastric gas resulting from dietary or digestive irregularities [9].

Hakim Muhammad Azam Khan (19th century CE) further refined the understanding of belching within clinical practice. He described *Arwāḥ* or *Ḍakār* as the sound produced when air escapes forcefully from the stomach or intestines, interacting with surrounding soft tissues and muscular structures (*Azlā-i-Asrā'*). He categorized this condition under flatulence (*Nafakh*) and emphasized that although belching may be natural, its frequent or uncontrolled occurrence is indicative of a pathological condition. He also noted its common association with symptoms like indigestion (*Sū'-i-Haḍm*), nausea (*Tahu*), and retching (*Ubkā'ī*), which can negatively impact a patient's psychosocial well-being and overall quality of life [10, 11].

Hakim Kabeeruddin (20th century CE) maintained the foundational principles of earlier scholars and defined belching as the act of air (*riyāḥ*) exiting the stomach through the mouth. He also emphasized that when this process becomes chronic or distressing, it reflects an underlying disturbance in the gastrointestinal system, often requiring intervention [12].

Collectively, these classical insights converge on the understanding that belching, while physiologically normal, becomes pathologic when it is excessive, foul smelling, or associated with other digestive complaints. Unani physicians consistently traced such disturbances to disruptions in the humoral equilibrium and dystemperament of the stomach, offering a holistic framework that remains relevant in understanding functional gastrointestinal disorders [10, 11].

In Unani medicine, the health and proper function of an organ depend on the stability of its unique temperament (*mizāj*), which is maintained by the balanced presence of the four humors: blood (*dam*), phlegm (*balgham*), yellow bile (*safrā'*), and black bile (*sawdā'*). When there is any imbalance—whether an excess or deficiency—in one or more of these humors, the natural temperament of the organ becomes disturbed. This pathological condition is termed dystemperament (*Su'-i-Mizāj*) and may appear in either a hot form (*Su'-i-Mizāj-e-Hār*) or a cold form (*Su'-i-Mizāj-e-Bārid*). Avicenna explained that when such an imbalance affects the stomach, it can disrupt its normal function and lead to various digestive complaints [3-6]. He specifically identified belching (*Jushā*) as a symptom that may result from

this kind of humoral disturbance or from the accumulation of humors within the stomach or other bodily regions [2].

Ibn Sina categorized belching based on its smell and linked each type to a specific cause. In his initial classification, he identified three types: odorless belching, belching that carries the smell of recently eaten food, and belching with a foul odor^[2].

Odorless Belching

Avicenna regarded odorless belching as the least concerning type [2]. He further categorized it based on how often it occurs and when it happens after eating. If such belching takes place shortly after eating, happens frequently, and is not accompanied by other digestive issues like abdominal heaviness, bloating, regurgitation, or nausea, it is considered normal and does not require medical treatment. In fact, this type of belching is seen as a sign of healthy digestion [4]. However, excessive odorless belching may result from the type of food consumed or the manner in which it is eaten—for example, eating foods that produce gas, eating too fast, or drinking water during or after meals [2]. Additionally, odorless belching that occurs when a person is hungry may indicate the presence of raw moisture (undigested substances) in the stomach. This undigested moisture can accumulate from eating heavy or hard-to-digest foods [2].

Belching with Eaten Food Smell (Food Odor Belching)

Avicenna believed that foul-smelling belching occurs due to the stomach's weakened ability to digest food properly. When digestion is delayed or incomplete, the odor of the undigested food rises and becomes noticeable through belching, allowing the smell to reach the nose [2].

Malodor Belching

Avicenna identified various types of foul-smelling belching, including *Dokhani* (smoky), *Hamez* (sour with a rancid odor), *Sahaki* (smelling like sweat or meat), *Samaki* (fishy), *Hemaei* (like black mud or sludge), *Zangari* (corrosive), *Zohmi* (resembling the odor of raw fat and meat), and *Montan* (indicating infection). He viewed these unpleasant belches as symptoms of a disease that needed medical attention. Among these, he provided detailed explanations only for the smoky and sour types, as they were the most commonly observed [2].

According to *Buqrat* (Hippocrates), belching (*Jushā*) disorders are classified according to type or nature (*Jins*). This classification is based on the underlying causative factors and is divided into two broad categories: Balanced (*Mu'tadil*) and Unbalanced (*Ghayr Mu'tadil*). The unbalanced type is further subdivided into four kinds, depending on the nature of the disturbance—coldness of the stomach, weakness of the stomach, defective composition (*Su'-i-Tarkīb*), and inflammation. He also mentions that these conditions are relatively easy to treat and usually resolve quickly.

Balanced (Mu'tadil)

Balanced belching occurs when a person drinks water or eats food in moderation. It is essentially the natural expulsion of air that accumulates in the epigastric region (*Fāme-Mi'da*) during or after eating or drinking. This type of belching is a normal physiological response. The accumulated air is easily expelled, and along with it, any remaining air present in the stomach after digestion is also removed. This indicates a healthy digestive process.^{13,14}

Unbalanced (Ghayr Mu'tadil)

Buqrat describes four types of unbalanced belching, each caused by different pathological conditions:

i) Due to Coldness of the Stomach (*Burūdat-e-Mi'da*): In this type, the stomach becomes cold and is unable to properly digest food. As a result, gas (*riyāh*) is formed, which the body's natural healing power attempts (*Tabi'at*) to expel in the form of belching.

ii) Due to Weakness of the Stomach (*Zu'f-e-Mi'da*): Here, the stomach is weak and cannot digest food efficiently. The innate heat (*Ḥarārat Gharīziyya*) tries to break down the undigested food, producing vapors (*Bukhārāt*). The *Tabi'at* in the form of belching then expels out [13].

iii) Due to Defective Composition of the Stomach (*Su'-i-Tarkeeb*): This occurs when there is a structural or functional disorder (*Su'-i-Tarkeeb*) in the stomach, or when food remains in the stomach for a prolonged period. The food starts to ferment (*Raddī Kaifiyat*), resulting in the formation of gas and belching.

iv) Due to Inflammation of the Stomach (*warm-e-mi'da*): This is considered the most severe form of unbalanced belching. It occurs due to inflammation in the stomach, which leads to the formation of gas (*riyāh*) that is expelled as belching [13, 14].

According to *Hakīm Muḥammad Arzānī*, belching (*Jushā*) is classified into two types:

1) Natural Belching (*Ṭabī'ī*): Natural belching occurs in a balanced physiological state. It is characterized by the gentle and gradual release of air accompanied by a slight sound in the throat. This form of belching results from the accumulation of a small amount of air in the stomach, which is easily expelled due to the natural peristaltic movement of the stomach (*Mida kī Kashish*). This facilitates proper digestion. Such belching may occur: After slow consumption of water, when water is sipped or drawn in slowly, after eating food in moderation. In all these situations, a small quantity of air accumulates in the epigastric region (*Fām-e-Mi'da*). The body's innate healing force (*Tabi'at*) expels this air naturally and smoothly through the mouth, indicating a healthy digestive function.⁹

2) Unnatural Belching (*Ghayr Ṭabī'ī*): Unnatural belching occurs due to pathological conditions, most commonly due to gastric distension (*Nafakh-e-Mi'da*). This condition leads to digestive imbalance (*Fasād-e-Hazam*), which causes frequent and forceful belching. When belching becomes excessive, it disrupts the digestive process further, as it tends to agitate or disturb the food (*Ghizā ko ubhārānā*) present in the stomach.⁹

According to *Hakīm Azam Khan*, belching (*Jushā*) is classified into two types based on the quality and odor of the expelled air:

1) Indorous Belching (*Dukhanī*): Indorous belching, also referred to as *Dakhani* belching, occurs due to the consumption of foods whose essence (*Jauhar*) undergoes transformation into a smoky or vaporous nature (*Dukhaniyyāt*) — especially foods that are cooked over fire, acquiring a smoke-like quality. In such cases, the fiery temperament (*Nāriyat*) of the stomach becomes the cause of this type of belching [10].

This condition typically arises from an underlying simple imbalance of temperament (*Sū'-i-Mizāj Sada*) or humoral imbalance (*Sū'-i-Mizāj Maddī*). If morbid matter (*Madda*) is present, the belched air will also carry a noticeable taste or sensation in the mouth, indicating the presence of abnormal digestive vapors.

2) Foul-Smelling Belching (*Badbūdār*) : Foul-smelling belching is an indication of infection (*Ufūnat*) or ulceration (*Qurūh*) in the stomach. If the belching carries the odor of rotten eggs, fish, or swamp-like smell, it signifies the presence of putrefied moistures (*Mutaffin Rutoobāt*) in the stomach.

If the belch carries the taste of previously consumed food even long after ingestion, and without signs of smokiness (*Dukhāniyyat*) or acidity (*Turshī*), it is a sign of stomach weakness (*Zu'f-e-Mi'da*) and the inability of the digestive system to properly act upon the food.

3. Etiology (*Asbāb*) of Belching (*Jushā*)

According to classical Unani sources, the causes of belching are diverse and rooted in both simple (*Sū'-e-Mizāj Sāda*) and compound temperamental imbalances (*Sū'-e-Mizāj Maddī*—humoral disturbances). The following are the principal etiological factors (*Asbāb*) identified:

1) *Sū'-i-Mizāj Sāda* (Simple Temperamental Imbalance – Cold Type): Belching may arise from an air (*riyāh*) generated due to a simple cold temperament (*Bārid Mizāj*). This type of belching is typically odorless and occurs as a result of digestive sluggishness. In contrast, smoky/indorous (*Dukhānī*) belching is associated with a simple hot temperament (*Sū'-e-Mizāj Ḥār Sāda*), where the stomach is excessive heat causes the generation of subtle vapors [1, 2].

2) Compound Temperamental Imbalance Involving Humors (*Sū'-i-Mizāj Maddī*): In this case, belching is caused by coldness combined with the presence of morbid matter (*Madda*) such as thickened or viscous substances (*Sawdā' or Balgham*). This mixture leads to condensation (*Taksīf*) of the air in the stomach. The vapors formed are not strong enough to cause inflammation (*Waram*) but are sufficient to generate belching [1].

3) Weakness of the stomach (*Zu'f-e-Mi'da*): Belching occurs when air originates from thick humors in the stomach (such as *Balgham or Sawdā'*). There is weakness of the stomach (*Zu'f-e-Mi'da*) due to domination of a single humor, whether *balghamī* or *saudāwī*. Morbid matter accumulates excessively in the stomach or migrates from other parts of the body, leading to formation of air [8].

4) Inflammation of the Stomach (*waram-e-mi'da*): Inflammatory conditions in the stomach can also give rise to belching, especially when accompanied by gas formation. This type of belching may also present with pain and irritation in the epigastric region. This cause formation of internal vapors (*Bukhārāt*) due to indigested or improperly digested food can lead to belching as the body attempts to expel these vapors through the upper gastrointestinal tract [13]. Consumption of Cold or Excessively Sour Foods.

5) Ingestion of cold-natured food or foods high in acidity (*Turshī*): especially in large quantities can lead to the production of strong acidic belching. The stomach, due to its lack of adequate innate heat (*Ḥarārat Gharīziyya*), fails to digest such food properly. In severe cases, this may cause regurgitation of food along with belching, indicating a complete failure of digestion (*Fasād-e-Hazam*) [10].

Table 1- Summary of Etiological Factors (Asbāb) of Belching (Jushā) in Unani Medicine

Etiological Factor (Asbāb)	Unani Terminology	Nature and Characteristics of Belching
1.Cold Temperamental Imbalance	<i>Sū'-i-Mizāj Bārid</i>	- Mild, odorless belching - Result of weak digestive heat [1, 2]
2. Hot Temperamental Imbalance	<i>Sū'-i-Mizāj Ḥār Sāda</i>	- Indorous or smoky (<i>Dukhānī</i>) belching - Due to excessive gastric heat [1, 2]
3. Compound Temperamental Imbalance	<i>Sū'-i-Mizāj Maddī Akhlāṭ-e-Bārida</i>	- Caused by cold with morbid matter (<i>Balgham</i> or <i>Sawdā</i>) - Formation of thick vapors [1]
4. Inflammation of the Stomach	<i>Waram-e-Mi'da</i>	- Painful frequent belching with signs of gastric inflammation [13]
5. Improper Diet (Cold/ Excess Quantity)	<i>Ghizā Bārid / Kaseer-ul-Miqdār / Tursh</i>	- Sour(<i>tursh</i>) belching - Acidic or strong belching - Food may regurgitate; indicates digestive failure [10]

4. Etiopathogenesis of Belching (Jushā)

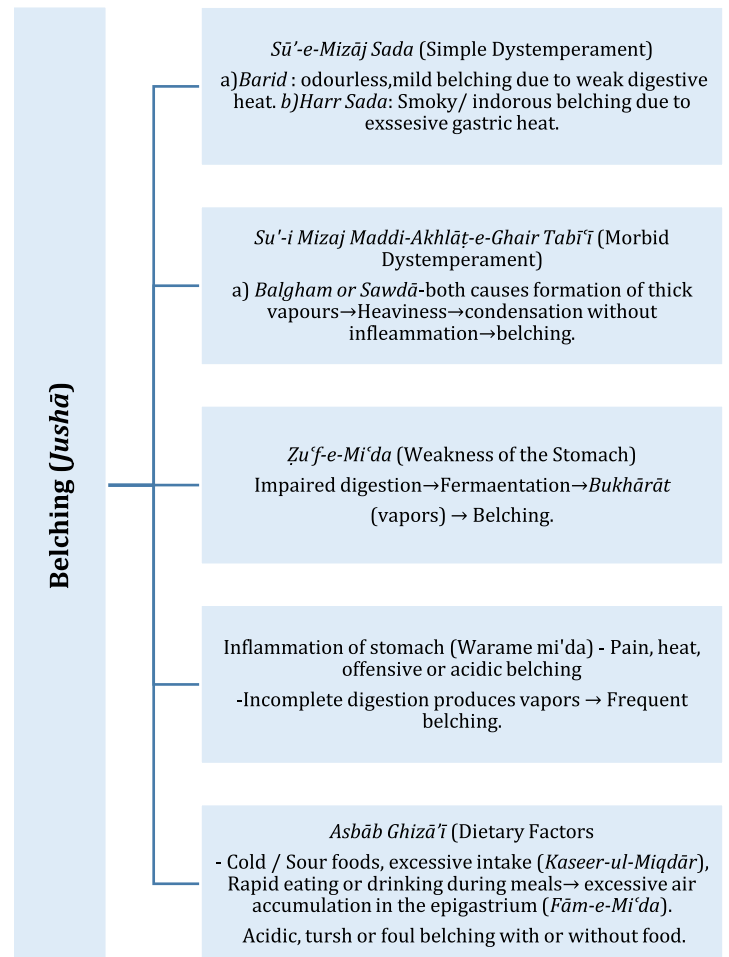
In Unani medicine, belching (*Jushā*) is understood as the expulsion of air or vapors from the stomach through the mouth. Its etiopathogenesis is rooted in the concept of *Sū'-i-Mizāj* (derangement of temperament), it may be simple without involvement of matter (*Akhlāṭ*) or due to the presence of abnormal humors (*Akhlāṭ*), and functional disturbances in the stomach (*Mi'da*). Belching may be physiological or pathological depending on the nature, odor, and timing.

1. Temperamental Imbalance (Role of *Sū'-i-Mizāj*): In the state of cold dystemperament (*Sū'-i-Mizāj Bārid*) of the stomach, an abnormal degree of coldness develops, leading to a weakening of the stomach's innate digestive heat (*ḥarārat-e-gharīziyya*). As a result, the process of digestion becomes inefficient or incomplete. The undigested food begins to ferment and generate gases (*riyāḥ*), which are subsequently expelled in the form of belching (*jushā*) as a compensatory mechanism of the body. Conversely, in hot dystemperament (*Sū'-i-Mizāj Ḥār*), the stomach develops an excess of pathological heat. This disrupts the normal process of digestion by accelerating the decomposition of food and producing a burnt or scorched residue. This altered digestion results in the formation of smoky or sulphurous belching (*dukhānī jushā*), which is indicative of the presence of abnormal vapors or combustion within the gastric contents.^{1,2} In the context of material dystemperament (*Sū'-i-Mizāj Maddī*), the morbid matter (*mādda*) either infiltrates directly into the stomach or reaches it from another site—such as the brain (*dimāgh*). For instance, hot humours (*Akhlāṭ-e-Ḥārrā*), when accumulated in the stomach, produce abnormal heat. This pathological heat alters the digestive process, resulting in the generation of smoky or sulphurous belching (*dukhānī jushā*). Similarly, cold humours (*Akhlāṭ-e-Bāridā*) may either accumulate locally in the stomach or be transferred from distant organs (particularly the brain). Their presence weakens the innate heat of the stomach (*ḥarārat-e-gharīziyya*), impairing digestion. As a result, food remains undigested, leading to the production of gases (*riyāḥ*), which are expelled in the form of belching (*jushā*) [1].

2. Digestive Weakness (*Ẓu'f-e-Mi'da*): Weakness of the stomach impairs innate digestive heat (*Ḥarārat Gharīziyya*). This leads to delayed or incomplete digestion, resulting in accumulation of gases, vapors, or undigested food that causes frequent or foul-smelling belching.

3. Inflammation (*waram*): sometime in the state of *Sū'-i-Mizāj* (dystemperament), inflammation (*waram*) may develop in the stomach, which interferes with the proper digestive process. As a result of incomplete digestion, gaseous accumulation (*riyāḥ*) occurs within the stomach, which is eventually expelled in the form of belching (*jushā*) [13,15].

4. Dietary Factors: The consumption of excessively cold or large quantities of food weakens the innate gastric heat (*Ḥarārat-e-Gharīziyya*), impairing the stomach's ability to digest the ingested material efficiently. This leads to the accumulation of undigested food and vapors in the epigastric region (*Fām-e-Mi'da*), resulting in the formation of sour belching (*Tursh Jushā*) [2, 10].

**Table 2- Etiopathogenesis of Belching (Jushā)**

5. Symptoms (Alamat)

1. Odorless Belching: Occurs shortly after eating, happens frequently, not accompanied by abdominal heaviness, bloating, regurgitation, nausea. If hungry and belching is odorless → presence of raw moisture (*Rutoobat-e-Ghayr-Hāzima*) in the stomach [1, 2]

2. Belching with Recently Eaten Food Smell: Associated with delayed or incomplete digestion, belch carries the smell of food, weakened digestive ability of the stomach [2].

3. Foul-Smelling (Malodorous) Belching — Types and Symptoms:

- *Dukhānī* (Smoky): Indicates volatile vapors due to excessive internal heat
- *Hamez* (Sour/Rancid): Suggests acidic fermentation
- *Sahakī* (Sweaty/meaty): Sign of putrefaction
- *Samakī* (Fishy): Implies damp/moist decay
- *Himā'ī* (Black sludge-like): Suggests extreme digestive corruption
- *Zangārī* (Corrosive): Indicates corrosive humor dominance
- *Zuhmī* (Raw meat/fat odor): Sign of undigested meat matter
- *Muntin* (Septic/putrid): Suggests infection [2]

4) Balanced (Mu'tadil) Belching: Mild, natural release of air, occurs after moderate eating or drinking, no discomfort and sign of healthy digestion.¹³

5) Unbalanced (Ghayr Mu'tadil)

i) Due to Coldness of the Stomach (Burūdat-e-Mi'da): Poor digestion and interrupted digestive process (*Izālat Munqatī'*)

ii) Due to Weakness of the Stomach (Zu'f-e-Mi'da): Moderate appetite, weak digestion, pain in the stomach after eating, formation of vapors (*Bukhārāt*).

iii) Due to Defective Composition (Su'-i-Tarkīb): Belching during digestion, fermentation of food, belching due to prolonged food retention. **iv) Due to Inflammation (Warm-e-Mi'da):** Burning sensation in stomach, formation of gas (*riyāḥ*) considered as the severe form of belching [13, 14].

6) Natural Belching (Ṭabī'ī): Gentle, gradual release of air, slight sound in the throat, occurs after slow drinking, after eating in moderation indicates healthy stomach contractions [14, 16].

7) Unnatural Belching (Ghayr Ṭabī'ī): Due to gastric distension (*Nafakh-e-Mi'da*), frequent and forceful belching, causes further digestive disturbance and may agitate undigested food [14].

8) Indorous (Dukhānī) Belching: Belching with smoky or vaporous taste, occurs due to intake of smoke-infused food, hot temperament (*Nāriyat*) of the stomach and may include unpleasant mouth sensation [10].

9) Foul-Smelling (Badbūdār) Belching: Smells like rotten eggs, fish, swampy decay, sign of putrefied moistures (*Mutaffin Rutoobāt*), infection (*Ufunat*) or ulcers (*Qurūḥ*) are present. If belch has food taste long after eating without sourness → suggests gastric weakness (*Zu'f-e-Mi'da*) [10, 17].

Table 2 – Etiology (Asbāb), Pathogenesis (Hudoos-e-mard) and diagnosis (Tashkhees) of Belching (Jushā) in place of hiccup (fawaq) based on Sū'-i-Mizāj

S.NO	Etiology (Asbāb)	Pathogenesis (Hudoos-e-Mard)	Diagnosis (Tashkhees)
1.	<i>Sū'-i-Mizāj Sadā</i>	Abnormal hotness and coldness arises in the stomach, due to which digestion does not complete properly, and gases are produced in the stomach that cause belching. ^{1, 2}	-
	<i>Har Sadā</i>	A kind of heat (<i>hararat</i>) develops in the stomach, which leads to the production of vapors (<i>dukhānīyat</i>), and these vapors become the cause of belching (<i>dukhānī dakar</i>). ^{1, 2}	It is produced by consuming such food that has been cooked over fire [1, 2]
	<i>Barid Sadā</i>	A kind of coldness (<i>burūdat</i>) develops in the stomach that suppresses its natural heat, due to which food is not digested properly. As a result, gases are produced in the stomach, which the tabiyat expels in the form of belching. ^{1, 2, 10}	Weak digestion and interruption of bowel evacuation [1, 2, 10]
	<i>Ratab Sadā</i>	-	If the belch smells like mud or fish, it indicates the presence of putrid moisture in the stomach [1, 2, 10]
	<i>Yabis Sadā</i>	-	-
2.	<i>Sū'-i-Mizāj Maddi</i>	The hot and cold humors (<i>Akhlāt-e-Hārra wa Bāridah</i>) either accumulate directly in the stomach or come from elsewhere into the stomach, hindering digestion. As a result, gases are formed in the stomach, which the body expels in the form of belching. ^{1, 2, 15}	The taste of the substance present in the belch can be perceived [1, 2, 15]
	<i>Akhlāte-Harra</i>	Hot humors (<i>Safrā</i>), either by accumulating in the stomach or by entering it from elsewhere, generate heat within the stomach. This leads to the formation of vapors (<i>dukhānī</i>), which are expelled as smoky or vaporous belching. ^{1, 2, 15}	The taste of hot substance present in the belch can be perceived [1, 2, 15]
	<i>Akhlāte-Barida</i>	Cold humors (<i>Balgham and Sawda</i>), when accumulated in the stomach, extinguish its natural heat. As a result, food is not digested properly, gases are formed, and the body expels them in the form of belching. ^{1, 2, 15}	-
3.	Intake of cold nature food (<i>Barid Ghiza</i>)	Due to the intake of cold-natured food or excessive quantity of food, the natural heat of the stomach is extinguished, rendering it incapable of digesting the food properly, which results in sour belching.	After the intake of cold-natured food or excessive quantity of food, sour belching (<i>tursh Dakar</i>) occurs [2, 10].
4.	<i>Waram -e-Mi'da</i>	Due to inflammation (<i>waram</i>), complete digestion does not occur. As a result, gases form in the stomach, which the body expels in the form of belching.	Feeling of Inflammation (<i>waram</i>) in the Stomach [13]

Table 3-Symptom (Alamāt) based classification of Belching (Jushā)

Scholar	Type of Belching	Important Symptoms / Characteristics
Ibn Sīnā	Odorless Belching Food-Odor Belching Foul-Smelling Belching (<i>Dukhānī</i> , <i>Hamez</i> , <i>Sahakī</i> , <i>Samakī</i> , <i>Himā'ī</i> , <i>Zangārī</i> , <i>Zuhmī</i> , <i>Muntin</i>)	Occurs shortly after eating, frequent, no other GI issues, healthy digestion. Indicates presence of raw moisture (<i>Rutoobat-e-Ghayr-Hāzima</i>) Smells like recently eaten food, weak digestion. Smoky, sour, sweaty, fishy, muddy, corrosive, fat-like, or septic odor — indicates disease. ²
Buqrat	Balanced (<i>Mu'tadil</i>) Unbalanced (<i>Ghair Mu'tadil</i>) Cold Stomach (<i>Burūdat-e-Mi'da</i>) Stomach Weakness (<i>Zu'f-e-Mi'da</i>) Defective Composition (<i>Su'-i-Tarkīb</i>) Inflammation (<i>warm-e-Mi'da</i>)	Occurs after eating/drinking in moderation, indicates normal digestion. Weak digestion, interrupted digestive process. Moderate appetite, pain post-eating, vapors expelled. Food fermentation, belching during digestion. Burning sensation in stomach, severe belching. ^{13,14}
Arzānī	Natural Belching (<i>Ṭabī'ī</i>) Unnatural Belching (<i>Ghayr Ṭabī'ī</i>)	Gentle, throat sound, after slow eating/drinking, healthy gastric movement. Frequent, forceful, disturbs digestion (<i>Fasād-e-Hazam</i>), from gastric distension. ⁹
Azam Khān	Indorous Belching (<i>Dukhānī</i>) Foul-Smelling Belching	Smoky vapor, fiery temperament, noticeable taste if morbid matter present Rotten eggs, fish, swamp odor, due to infection or ulcers, or stomach weakness. ¹⁰

6. Diagnosis (Tashkhees)

According to *Rāzī*, belching occurs when the digestive heat (*harārat-e-hāzima*) becomes weak or insufficient. Due to this weakness, the food undergoes a slow melting or decomposing process instead of being strongly and properly digested. This leads to the gradual production of gases, resulting in belching. Belching in this case is a sign of ineffective or incomplete digestion caused by a weakened digestive process.¹⁵ Galen believes that belching results from the accumulation of thick and flatulent gases (*ghaleez wa naffākh ri'yāh*) in the stomach. These gases are expelled through the mouth (oral expulsion), which is manifested as belching. Such belching is often a sign of excess phlegm (*balgham*) and weakness of the stomach (*zauf-e-mi'da*). He also mentions that gastric weakness can sometimes be caused by dyspepsia (*sū'-i-Mizāj*) i.e., a qualitative imbalance in the stomach's temperament.¹⁵ The diagnostic approach begins with palpation and examination of the abdomen:

Step 1- Palpate the Abdomen: If warmth (*waram*) is felt in the abdominal region, the cause is likely inflammation or excessive heat. If no warmth is detected, proceed to evaluate the quantity, quality, and composition of the food consumed.

Step 2- Dietary History: If the patient has consumed excessive quantity of food, or Gas-producing (*muwallid-e-riyah*) foods, or has followed irregular dietary habits→ then these are the likely causes of the belching.

Step 3- Evaluate Appetite (*Ishtihā*): If the patient has, excessive appetite (*shadeed ishtihā*) combined with poor digestion→ the cause is likely coldness (*barūdat*) affecting digestive power. If the appetite is moderate, but the patient complains of stomach pain, indigestion (*sū'-i-hadm*) after meals→ the cause is likely gastric weakness (*zauf-e-mi'da*).

Step 4- Determine Cause of Gastric Weakness: If gastric weakness is suspected, its underlying causes are determined by referring to the known causes of stomach diseases in unani medicine [1, 2, 8, 13].

7. Conclusion

Belching (*Jushā*) has been recognized in Unani medicine not merely as a physiological release of gastric air but as a symptom with diagnostic significance, deeply rooted in the humoral theory. Classical scholars such as *Buqrat* (Hippocrates), *Razi*, *Ibn Sina*, *Jurjani*, and later physicians like *Arzani* and *Azam Khan* provided a comprehensive understanding of its types, causes, and underlying pathophysiological mechanisms. They emphasized the role of dyspepsia (*Sū'-i-Mizāj*) in the stomach and related organs, as well as the quality and quantity of ingested food, in generating abnormal belching. *Ibn Sina's* classification based on the odor of belch—ranging from odorless to foul-smelling—offered an early method of etiological diagnosis, which was further refined by later physicians. Unani scholars systematically linked belching to derangements in the temperament of internal organs, especially the stomach and liver, and traced its origin to disturbances in humors (*Akhlāt*), innate heat (*Harārat Gharīziyya*), and *Quwā* (vital faculties). Excessive or foul-smelling belching was viewed as a sign of indigestion, fermentation, or putrefaction due to improper digestion or imbalance of humors. Therapeutic recommendations in classical texts revolved around correcting the underlying *mizāj*, regulating diet, and strengthening the gastric faculties. This historical overview highlights that the Unani approach to belching is not symptomatic alone, but holistic and etiologically driven, with enduring relevance in modern integrative and traditional medicine frameworks. Reexamining these classical insights can contribute to the broader understanding of gastrointestinal health and guide current clinical practice in traditional systems.

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