

Review Article**Gastric Faculties and Their Role in Digestion: A Unani Perspective**

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Article Info

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Abstract

Unani medicine describe the stomach (*Mi'da*) as a central organ in digestion, regulated by five essential faculties (*Quwa*). These faculties ensure proper food intake, digestion, absorption and waste expulsion. This paper elaborates on the five faculties of the stomach- *Quwwat Jādibah* (absorptive Faculty), *Quwwat Māsika* (Retentive Faculty), *Quwwat Hādima* (Digestive Faculty), *Quwwat Mumayyaza* and *Quwwat Dāfiya* (Expulsive Faculty)-along with their causes of dysfunction, symptoms, complications and associated diseases.

Keywords: Stomach, *Mi'da*, *Mizāj*, *Quwwat*, Faculty, *Quwwat Jādibah*, *Quwwat Māsika*, *Quwwat Hādima*, *Quwwat Mumayyaza*, *Quwwat Dāfiya*, Unani Medicine etc.

1. Introduction

The Unani system of medicine, developed by *Hippocrates*, *Galen* and later refined by *ibn sina* and *ibn Nafees*, views digestion as a process controlled by the four different faculties of the stomach but *Ibn rush* also describe one more *quwwa* name *Quwwat Mumayyaza* which help in the absorption of specific content of food according to the organ. The balance of these faculties ensure good health, while any disturbance can lead to gastric disorders, malabsorption, and metabolic issues. This paper provides a detailed discussion of each faculty and its clinical implication.

2. Findings

2.1 *Quwwat Jādibah* (Absorptive Faculty)

Quwwat Jādibah is the faculty responsible for attracting and receiving food into the stomach. It is also known as the “Nutritive faculty” of the body. It ensures proper intake and prevents conditions like anorexia and malnutrition.[2, 3,4,5,7,13,15,16,19,20]

Function

Quwwat Jādibah causes Absorption of the Nutritive content from the food. *Quwwat Jādibah* is necessary for the body because the substances that break down from the organs are absorbed by the force of attraction (*Quwwat Jādibah*) of their established structure and are delivered to other organs. [5, 6, 7, 16] *Quwwat Jādibah* performs its function through the *Lambey Reshay* (longitudinal muscle fibers) of the stomach.[7,11,16]

Process of Absorption

There are three principle mechanisms on which *Quwwat Jādibah* works:

- Force of magnetism
- Space Requirement
- Heat [5,6,8,16]

Process

a) Force of magnetism (*Quwwat Jādibah of Magnets*)The process is carried out through the force of attraction, just as the force of magnetism.On the same principle, the force of each organ of our body draws the components that are appropriate and similar to it.

Therefore, this type of process was likened to the physical force of a magnet.

b) Space Requirement (*Zarurat-e-Khila*)

Materials are also absorbed due to space requirement, just like in syringe.Since space is dangerous, nature itself tries to clear the space of fluid, therefore in this way material is absorb in organs.

c) Heat (*Hararat*)

Because of heat, the moisture is absorb just as the lamp wick absorb oil.

Regarding the working of *Quwwat Jādibah*, *Majoosi* said if a person eats something and it does not suit their stomach, it causes harm instead of benefit. If a person’s does not have the strength to digest it, the food remains undigested in the stomach. Now, from this it becomes clear that the stomach has a natural’s force that digests food, and when this force weakens, only the things suitable for the stomach can be digested.[5,6,8,12,16]

Table 1- Factors affecting *Quwwat Jādibah*

Increase	Decrease
Heat and Dryness (<i>Garam &Khushk</i>) [5,6,11,12]	Cold and wetness (<i>Barid &Ratab</i>) [8,17,21]

Du’f-al- Jādibah (Dysfunction of *Quwwat Jādibah*)

A defect in *quwwat Jādhiba* occur in such a way that appetite become void or decreases or does not perform the function of absorption at all or there is difficulty in absorption of food. [9]

Causes of Dysfunction (*Asbāb D’uf-al-Quwwat Jādibah*)

- Excessive intake of cold, wet or incompatible foods

- Weak intrinsic heat (*Hararat Ghareezia*)
- Psychological factors like stress and anxiety
- Chronic illness (*D'uf-al-Mi'da*, General weakness, Liver disorders) [2, 8,9]

Symptoms of weak Absorptive Faculty (*D'uf-al- Quwwat Jādibah*)

- Delayed emptying of food in Fame Maida.
- Delayed digestion
- Loss of appetite (*D'uf- al- ishtiha*)
- Weight loss and nutritional deficiencies
- Feeling of discomfort and uneasiness in epigastric Region (*fame mi'da*).
- Palpitation
- Patient is not able to sleep at one side for long period of time
- Continuous nausea and vomiting
- Sometime palpitation (*Ikhtelaj*) occurs in epigastric region.[2,8,9]
- Associated Diseases
- Decrease Appetite (*Nuksan-al-Ishtiha*)
- No Appetite (*Butlane -al-Ishtiha*)
- Flaccidity or Weakness of the organ (*Istarkha*)
- Anorexia Nervosa (*Nuqs-al-Shahwat-al-Taam*)
- Gastric Congestion due to weak absorption (*D'ud-al-Mi'da*) [11]

Manifestation of Absorptive Faculty (*Araaz Quwwat Jādibah*)

Regarding the manifestation of Power of attraction (*Quwwat Jādibah*), *Ibn Rushd* Said that it involves the causes that lead to activation. These are the factors that result in disease due to errors in its function. Disease occurs when the force responsible for food intake in the stomach weakens. The function of this power is carried out through two factors:

- Power of Attraction (*Quwwat Jādibah*)
- Power of Expulsion (*Quwwat Dāfi'a*)

If the function of attraction is disrupted the human body becomes weak. The organs that naturally absorbs nutrients and expel waste fail to perform their function properly, leading to disturbances in the body.

In a person with a full stomach, the old food stays inside, preventing new food from moving towards the stomach. This is the function of expulsion. In a person with an empty stomach, the stomach contracts and hunger signals are sent to attract food. However, if the power of attraction is weak, food absorption is not performed properly, and the function of expulsion is also disrupted. As a result, digestion does not occur correctly. [3,4,11]

Complications Severe malnutrition (*Sui-e-Mizaj Mi'da*), Weakness of other digestive faculties, Hormonal imbalance due to lack of essential nutrients. [5, 11]

Table -1.1 Overview of *Quwwat Jādibah*: Function, Requirement and Pathological Manifestation

Name	Function	Requirement of <i>Quwwat Jādibah</i>	Perform Function by which Muscle Fibre	Substance which give strength	Substance which give weakness	Causes Of <i>D'uf-al-Jādibah</i>	Symptoms of <i>D'uf-al-Quwwat-al-Jādibah</i>	Disease	Manifestation (Araaz)
<i>Quwwat Jādibah</i>	Absorb Beneficial Substance from the food.	Because the substances that break down from the organs are absorbed by, the force of attraction (<i>Quwwat Jādibah</i>) of their established structure and are delivered to other organs.	By the <i>Lambay Reshay</i> (Longitudinal Muscle fibre of Stomach)	Dry and Heat	Cold and wet	Due to the failure of body Force of Magnetism (<i>Quwwat Jādibah</i> of Magnets) Space Requirement (<i>Zarurat Khila</i>) Heat (<i>Hararat</i>).	-Delayed emptying of food in Fame Maida. -Feeling of discomfort and uneasiness in epigastric region. -Palpitation -Patient is not able to sleep at one side for long period of time -Continuous nausea and vomiting	- <i>Zauf-al-Ishtiha</i> - <i>Butan-al-Ishtiha</i> - <i>starkha</i>	-Food is expelled as it is in stool -weakness

2.2 *Quwwat Māsika* (Retentive Faculty)

Quwwat Māsika is the retaining faculty of the stomach for retaining the food for adequate period, allowing proper digestion. Weakness in this faculty can result in gastric hypermotility, premature expulsion of food and indigestion. [2, 3,4,5,13, 15,16,19, 20]

Function

Quwwat Māsika helps in retaining food for adequate period. Regarding this *quwwa ibn Sina* said that this *quwwa* will hold the food until *Quwwat Hādima* act on it.[5, 6, 16] This *quwwa* perform its function of retention through the *Tirchay Reshay* (Oblique Muscle fibre) of the Stomach.[3,6,7,11] *Quwwat Māsika* is needed when the components that have been absorbed are not similar to the organs. Therefore, *Quwwat Māsika* acts on those components and during the process, brings about a transformation to make them similar to the organs. [5,16,15]

Process of Retention

The complete process of *Quwwat Māsika* in stomach is that the stomach completely surrounds the food and envelop it from all side in such a way that there is no space left in between the stomach and food.[3,4,16]

Regarding this *ibn sina* said *Quwwat Māsika* takes help from *yubūsat* because it help in the contraction of stomach muscle fibres.[5,6] *Quwwat Māsika* is stronger at the site of stomach because more internal work is done there. This is why the food transformation that occur inside the stomach require *Quwwat Māsika* to retain the material at that location for a longer time. Similarly, in the uterus, the foetus needs to be retained for a longer duration until it reaches complete development. This also requires strong *Quwwat Māsika*. In this way, *Quwwat Māsika* uses *Quwwat Jādiba* (absorptive power) and *Quwwat hādima* (digestive power) as helper over time. [10,16] For example, after eating food, if

someone is made to vomit by tickling their stomach, the vomited food clearly shows that the stomach has already held onto the food. This proves that the food had already been transferred to the stomach and was held there firmly, and that it had mixed with the stomach 's moisture. Otherwise, if it hadn't been held, the food could have come back out just as it was. The process of vomiting at that time shows that the food was retained. The stomach holds the food and only allows the lighter and more refined part of it to pass on. This clearly shows that the stomach and intestine possess *Quwwat Māsika* (retentive power) through which they hold on to the appropriate and suitable part of the food.[3,4] The Characteristic of *Quwwat Māsika* is that it retains substances that have the ability to be absorbed. Each organ attracts from the blood the components that resembles it the most, because each part demands only what is suitable for itself. Then it transforms that components according to its nature, so that each organ performs its function properly by creating something similar to itself. It also discards anything that is contrary to its natures, such as waste materials, and remove them from itself.[16]

Table 2- Factor Affecting *Quwwat Māsika*

Increase	Decrease
Coldness(<i>Burūdat</i>), [17] Dryness with Coldness(<i>Khushki Ma-el Sardi</i>) [8]	Wetness (<i>Rutūbat</i>) [5] Weak Gastric Muscles(<i>Mida k Jarm ka Kamzoor hona</i>)[8]

Du'f-al- Māsika (Dysfunction of power of retention)

If there is any defect (*Fitoor*) in *Quwwat Māsika*, Strength of *Māsika*, its grip (*imsaak*) becomes more rigid or weak or completely lost and disappear, due to this food quickly leaves the stomach. [5,6,9] If *Quwwat Māsika* becomes

weak it will not hold the food or if it becomes more strong then then it will hold the food tightly and due to this gurgling sound (*Qarakar*) inside the stomach are heard and it will lead to Constipation(*Qabz*). [9,16] Mosly in the boys the *Mizāj* is inclined towards *rutūbat*, thats why they have weak *Quwwat Māsika* [5,6] If the weakness arise in *Māsika* so, stomach cannot completely dominate the food, nafiz tour par hawi hoga and its dominance *irtiaash*, *khafqan* or *tashanuuj* will occur.[5, 6, 9]

Causes of Dysfunction (*Asbāb Du'f-al- Māsika*)

- Excessive Drinking of water
- Hot Substance (*Garam Madda*)
- Cold and slippery substance (*Sard ar Phislanay wala Madda*)
- Stomach Ulcers (*Mi'da ke Qurooh*)
- Weak gastric muscles (*D'uf-al-Mi'da*)
- Heat by the bilious substance (*Hararat Madda-al-Safrawi*) [8,9]
- *Symptoms of Weak Retentive Faculty* (*D'uf-al- Māsika*)
- Sign of presence of *rutūbat* (Fluid accumulation) are present in epigastric region (fame *Mi'da*) so, the patient will think that if he moves, whatever he has eaten will regurgitate and come out in vomit.
- The food that has been eaten should leave the stomach quickly.
- Early satiety (Feeling full Quickly)
- Due to heat by the billous substance (*Hararat Madda-e-Safrawi*) symptoms are bitterness in mouth, Nausea, bile is excreted in the urine and stool, burnt –smelling burps with smoky taste and a foul odour resembling with rotten fish. These people have less desire for food and have strong digestion.
- In *Su' Mizāj-i-Sada* symptoms are thirst, decrease appetite, burnt smelling burps, less amount of which is lighter in quality is digested easily.

- Bloating(Gurgling) and gastric discomfort [2,8]

Associated Diseases *Māsika*

- *Nafak wa Qarakar* if *quwwat Māsika* function becomes weak
- *Zalakul Am'a*-if the *quwwat Māsika* completely lost
- *Takhliyat-al-Mida* (Hyperacidity leading to rapid gastric emptying)
- *Qai-al-Mutaghayyar* (Recurrent vomiting due to poor retention)

- *D'uf -al-Asbāb-e-Mi'da* (Nervous dysfunction affecting the stomach muscles) [11]

Manifestation of Absorptive Faculty (*Araaz Quwwat Māsika*)

- Food expel out without digestion

Complications

- Chronic Gastritis (*Waram -al-Mi'da*)
- Peptic Ulcers due to increased acidity (*Qurooh Mi'da*)[11]

Table 2.1 - Overview of *Quwwat Māsika*: Function, Requirement and Pathological Manifestation

Name	Function	Requirement of <i>Quwwat Māsika</i>	Perform Function by which Muscle Fibre	Substance which give strength	Substance which give weakness	Causes Of <i>D'uf -al-Māsika</i>	Symptoms of <i>D'uf -al-Quwwat -al-Māsika</i>	Disease	Manifestation (<i>Araaz</i>)
<i>Quwwat Māsika</i>	It will hold the food inside the stomach until <i>Quwwat hadimah</i> Act .	<i>Quwwat Māsika</i> is needed when the components that have been absorbed are not similar to the organs. Therefore, <i>Quwwat Māsika</i> acts on those components and during the process, brings about a transformation to make them similar to the organs.	By <i>Tirchay Reshay</i> (Oblique Muscle fibre of the stomach)	<i>Burūdat Khuski Mail Sardi</i> (Coldness and Dryness with Coldness)	<i>Rutūbat</i> (Coldness) and <i>Mid a k Jarm ka Kamzoorh ona</i> (Weak gastric Muscles)	Excessive water intake, Hot Substance, Cold and slippery Substance, <i>Quruh Mi'da</i> , Hot Billous Substance, Weak gastric Muscle	-Sounds of rumbling (<i>Qaraqar</i>) in the stomach, unusual sluggishness, Sluggish or slow bowl movement, Food comes out (vomiting) when even slight movement after eating	<i>Nafak wa Qaraqar, Zalakul Ama, Zauf Asab-al-Mida, Qai Mutaghayyur</i>	Food expel out without digestion

2.3 *Quwwat Hādima* (Digestive faculty)

Quwwat Hādima helps in the digestion of food. [2,3,5,6,7,13,16,15] Its functions (Digestion) started when *quwwat māsika* strat retenting the food.[3]It governs the chemical and enzymatic breakdown of food within the stomach. It

depends on the stomach's intrinsic heat(*Hararat-e-Ghareezia*) and digestive secretions.

Quwwat Hādima is necessary so that the nutrients absorbed by the process of absorption (*Quwwat Jādibah*) and retained by the power of retention (*Quwwat Māsika*) undergo *Taghayyur wa Istihalah* (transformation and alteration)

enabling them to resemble the organs and thus become part of the body.[5,6,7,15,16,20]

The softer and more delicate the food (*Naram wa lateef*) is, the more easily the digestive forces will act upon it, and the food will leave the stomach quickly. Conversely, the coarser (*Ghaliz*) and heavier the food is, the harder the digestive forces will have to work and the food will take much longer time to leave the stomach.⁸ Digestion becomes impaired (*Fitoor*), weakened or corrupted, due to which the food develops putrefaction or fermentation, resulting in sourness and acidity (*Dakhaniyat ya hamoozat*) and thus digestion becomes defective. [5,6,9]

The vein absorbs the blood with force and deliver it to the body organs. The body organs then easily transform (*Mutaghayur*) it into nourishment, extracting its essential substance, which is its intrinsic essence.[3]

Process of Digestion

The digestive power digest the food and convert it into nutrients useful for the body. As for those part of the food that cannot be digested, it transforms them into waste that it can be extracted from the human body easily and smoothly. This is one of the essential functions of the digestive power called as *Inzaaj Hādima* (Digestion) and *Inzaaj* (transformation) both are synonymous term, but when the digestive power (*Quwwat Hādima*) is unable to properly act upon the waste matter, it processes them in such a way that their corruption does not spread to other organs.

The changes that occur during the first digestion are similar to the changes observed in states of infection (*Tadia*) and petrification (*Ufonat*). That is the vary factor required for digestion – namely heat and moisture- are also needed for the petrification and corruption of matter.[8]

Table 3 - Factors affecting *Quwwat Hādima*

Increase	Decrease
<i>Harr Ratab</i> (Hotness and Wetness) [8]	<i>Burūdat</i> (coldness), <i>Su’i Mizāj Barid Maddi</i> or <i>Ghair Madd I</i> [8,11]

D’uf-al-Hādima (Dysfunction of Power of Digestion)

The term weakness of digestive power (*D’uf-al-Hādima*) refers to a condition where the food is digested slowly, remain in the stomach for an unusually long time, and does not move towards the intestine in the normal manner. [9]

Causes of Dysfunction (*Asbāb D’uf-al- Hādima*)

- Cold and Dry temperament (*Su’-i-Mizāj Barid wa Sada*) due to consumption of *barid* food, consumption of food in excess amount or May be develop due to *Akhlat-e- barida* like *Balgham* from *Dimag* (brain) and *Sauda* from *Tihal* (Spleen).
- Morbid temperament associated with substance (*Su’-i- Mizāj Maddi*)
- Wet Dystemperament (*Su’-i-Mizāj Tar*)
- Hot or wet Dystemperament (*Su’-i- Mizāj garam ya Tarr*)
- Dry Dystemperament (*Su’-i- Mizāj Khushk*)
- *Sard Awrām* of Stomach
- Excessive consumption of heavy, oily, or uncooked food [8,11]

Symptoms of Weak Digestive faculty (*Alamat Zauf-e- Hadimah*)

- Indigestion (*D’uf-e-Hadm*)
- Feeling of Heaviness after eating
- Gastric bloating and discomfort
- Bad breath (Halitosis) due to fermentation of undigested food [8,12]

Associated Diseases

- *D'uf-al-Hadm* (Dyspepsia, Weak Digestion)
- *Su'-i-Hadm*
- *Tukhma*
- *Mard-al-Shekhukta*
- *Su'-i-Mizāj Mi'da* (Disordered gastric Temperament)
- *Nafkh-al-Mi'da* (Gastric Bloating and Flatulence) [11]

Complications

- Sourness produce in the food
- *Qaraqar* and *Riyah* will produce

- Chronic indigestion and gastric stasis
- Fermentation of gas and toxins (*Ikhtinaq-al-Mi'da*, Putrefaction of food)
- Increase risk of gastrointestinal infections [11]

Manifestation of Digestive Faculty (*Araaz Quwwat Hādima*)

- There will be sourness in the food which is present in the stomach
- Rumbling sounds(*Qaraqar*),
- Flatulence (*Riyah*) and the production of vapour(*Dakhaniyat*).

Table 3- Overview of *Quwwat Hādima*: Functions, Requirements, and Pathological Manifestation

Name	Function	Requirement of <i>Quwwat Hādima</i>	Perform Function by which Muscle Fibre	Substance which give strength	Substance which give weakness	Causes Of <i>D'uf-al-Hādima</i>	Symptoms of <i>D'uf-al-Quwwat Hādima</i>	Disease	Manifestation (<i>Araaz</i>)
<i>Quwwat Hādima</i>	It digest the substances and converts them into a part of the body, and those substance which it cannot assimilate are transformed to waste.	Because the nutritive particles that have been absorbed by <i>Quwwat Jādiba</i> (Absorptive faculty)and retained by the <i>Quwwat Māsika</i> (Retentive Faculty) undergo transformation and alteration so that they may become similar to the organs and be assimilated into the body.	-	Hot and wet Substance	Cold substances, <i>Su'-i-Mizāj barid Maddi or Ghair Maddi</i>	Cold and Dry temperament Morbid temperament associated with substance Wet Dystemperament Hot or wet Dystemperament Dry Dystemperament Sard Awrām of Stomach Excessive consumption of heavy, oily, or uncooked food	Feeling of Heaviness after eating, Indigestion Gastric bloating and discomfort Bad breath (Halitosis) due to fermentation of undigested food	<i>D'uf hadm</i> , <i>Su'-i-hadm</i> , <i>Tukhma</i> , <i>Su'-i-Majiz Mi'da</i> , <i>Nafakh -e-Mi'da</i>	There will be sourness in the food which is present in the stomach, rumbling sounds(<i>Qaraqar</i>), Flatulence (<i>Riyah</i>)and the production of vapour(<i>Dakhaniyat</i>).

2.4 Quwwat Mumayyaza (Distinctive Power or Special Force)

Quwwat Mumayyaza is the power that helps in absorbing the specific nutrients into the organs according to their requirements. It is written in the book “Kitabul Kulliyat” that when this digestive power (Quwwat Hādima) does not function properly in the stomach, the food is not digested completely. However, whatever portion of food is digested, the stomach still extracts nutrition from it through this digestive power. [11]

D’uf –al-Mumayyaza (Dysfunction of Distinctive Power or Special Force)

The term weakness of Distinctive Power or Special Force (D’uf -al-mumayyaza) refers to a condition where the food main content according to specific organ is not absorb or absorb slowly.[9]

Causes of Dysfunction (Asbāb D’uf -al-Mumayyaza)

The weakness of the stomach’s digestive power or its complete cessation usually manifests in two ways:

- 1) If there is *Su’-i-Mizāj Yabis* (Hot and Dry Dystemperament) in the stomach or if the humors become abnormal and stay there for a long time, it causes the patient to become extremely thin or emaciated.
- 2) If *Su’-i-Mizāj Barid Yabis* (Cold-Dry Dystemprament) persists for a long time, it causes digestive power to weaken gradually. As a result, the stomach fails to properly extract nutrients from food, and hence cannot digest the food completely.

Associated Diseases-

Mard Diq (Tuberculosis), Mard Shekhukhat (Senescence)

Manifestation of Distinctive Power or Special Force (Araaz Quwwat Mumayyaza)

- All the function of stomach decline and becomes sluggish

Table 4 - Overview of Quwwat Mumayyaza: Functions, Requirements and Pathological Manifestation

Name	Function	Requirement of Quwwat Mumayyaza	Perform Function by which Muscle Fibre	Substance which give strength	Substance which give weakness	Causes Of D’uf-al-Mumayyaza	Symptoms of D’uf –al-Quwwat Mumayyaza	Disease	Manifestation (Araaz)
Quwwat Mumayyaza	This is the power that work after digestion, helps in the absorption of nutrients into the organs according to their requirements	-	-	-	-	Su’-i-Mizāj Har Yabis (Hot and Dry Dystemperament) Su’-i-Mizāj Barid Yabis (Cold and Dry Dystemperament)	-	Mard Diq(Tuberculosis) Mard Shekhukhat(Senescence)	All the function of stomach decline and becomes sluggish.

2.5 Quwwat Dāfiyah (Expulsive Faculty)

This faculty ensures the smooth passage of digested food into the intestine and the timely elimination of waste.[2,3,5,6,12,13,14,16,19,20] The need for expulsive force arises when the waste products of metabolism are not excreted and accumulate in the body. These waste substances are of no use and cannot be transformed into beneficial components-if they remain in the body for long, they decay decompose. This decay leads to putrefaction and reduction in bodily strength and if accumulated in excess, can cause harmful effects, diseases, and other problems. The primary role of expulsive force is to remove these wastes from the body so that it remains protected and its system function smoothly. [5,7,16] *Quwwat Dāfiyah* perform its function through *Choray Reshay* (Straighted Muscle Fibre) [3,5,7,16]

Process of Expulsion

The action of the expulsive force begins when the function of the digestive force is completed. It is explained that when the stomach digests the food well and it becomes soft and mixed, and reaches the stage where it is ready to be expelled, it is then pushed toward the intestines. Now what is to be expelled, its need is realized, and the lower opening of the stomach (called the pylorus) opens, which connects to the intestines. At this time, the lower part of the stomach becomes very tense and contracts intensely, pushing the digested food towards the intestine.

If a person’s eats more food than required, or there is indigestion, the stomach forces the undigested towards the intestines. Sometimes this happens prematurely, indicating that the expulsive force within the stomach is acting before complete digestion.6 When food is poorly chewed and swallowed quickly, it

reaches the stomach in an inappropriate state and causes disorders. This undigested food decays and produces harmful substances, which damage the natural temperament (*Mizāj*) of the stomach and lead to various stomach diseases.[9]

The stomach has the ability to digest only one type of food at a time. If more than one type of food is taken, it requires more time and energy for digestion, which can disturb the process. This is the reason why food with different temperaments and nature, when eaten together, stays longer in the stomach. As a result, the partially digested food ferments and putrefies, producing harmful substances that disrupt the stomach’s natural function and cause ailments. Therefore, it is necessary that foods of similar nature and temperament should be consumed together to avoid harm. [16]

Table 5- Factors affecting *Quwwat Dāfiyah*

Increase	Decrease
Coldness (<i>Burūdat</i>) Wetness along with coldness (<i>Tari Baimail Sardi</i>)[5,17]	Accumulation of (<i>Insebab-Dam, Balgham, Safra and Sauda</i>)[8,9]

D’uf –al-Dāfiyah (Dysfunction of power of Expulsion)

Loss of power of expulsion occurs when the stomach fails to retain food properly. The blood that is supposed to be produced from the digested food becomes deficient or poor in quality. This usually happens when the nervous system is weakened, and the blood flow to the stomach is reduced or disturbed. Consequently, the stomach loses its natural ability to digest food. As a result, the desired blood is not formed, which leads to weakness in natural power. This type of blood is usually excreted from the body through abnormal route.[5,14]

Causes of Dysfunction (*Asbāb D'uf-al-Dāfiā*)

1. Inflammation (*Insebab*): One of the cause of the loss of natural power (*D'uf-al- Dāfiā*) is inflammation that occurs in the stomach. This is due to imbalances, such as excess phlegm or bile. The presence of bile, especially the yellow bile (*Safra-e-Sauda*), Cause irritation, and as a result, it hinders the proper muscular movement requirement for digestion and blood formation, ultimately weakening the natural temperament (*Tabi'at*)
2. When yellow bile is produced in the stomach in excess, it irritates the stomach lining. During this time, such food reaches the stomach that quickly decomposes, which leads to weakening of digestion and sometimes it occurs due to no preservation of health.
3. And sometime it occurs due to *Insebab* of *akhlat-e-Sadida*, which pour into the stomach from other side of the body. Due to this it leads to the formation of Ulcers (*Qurooh*) Inside the stomach and When this incorrect matter discharges along with the incorrect matter discharges along with the melancholic material, it weakens the stomach. The weakness of the stomach leads to its defective function, which in turn causes poor quality blood formation, resulting in pallor and overall physical weakness.
4. When the body's Internal heat becomes impaired due to organ dysfunction, the stomach's heat also diminishes, the stomach's heat also diminishes, and food remains unprocessed. The result is a decline in digestion and production of healthy blood, which leads to debility and frailty.
5. Chronic stress affecting bowel movement: Severe emotional disturbance or sudden grief can also weaken stomach strength, disrupt digestion, and impair the movement of nutrients and fluids within the body. [5,14]

Symptoms of weak Expulsive Faculty (*Alamāt D'uf-al- Dāfiā*)

- Food will stay inside the stomach for longer period.
- Belching have smells of food.
- Constipation (Qabz)
- Heaviness and bloating
- Incomplete bowel evacuation [8,9]
- Associated Diseases

There is two Conditions-One condition in which the action will be suspended is, for example, colic (Mard –e- qolenj). Another condition in which the action will exceed its normal limits is, for example gastroenteritis (Zila Kul -al-Mida). Other conditioned that may be observed include bloating (Fawāk-Hichki), gastric Spasms (Tashannuj –e- Mi'da) or gastric diarrhea (Ishal-e- Mi'di)[11]

Complications

- Food will stay in the stomach for longer period & Hemorrhoids (Bawaseer)

3. Methodology

This study investigates the roles of the five digestive faculties of the stomach— *Quwwat Jādhiba* (Absorptive Faculty), *Quwwat Māsika* (Retentive Faculty), *Quwwat Hādimah* (Digestive Faculty), *Quwwat Mumayyaza* (Discriminative Faculty), and *Quwwat Dāfi'ah* (Expulsive Faculty)—as conceptualized in the Unani system of medicine. The methodology integrates a review of classical Unani literature with modern biomedical sources to create a comparative and analytical framework. To understand each faculty's physiological significance and pathological implications, classical Unani texts were systematically analysed. These included: *Al-Razi's Kitab al-Mansuri fi al-Tibb and Kitab al-Hawi* (Al-Razi, 865–925 CE), *Avicenna's Al-Qanoon fi al-Tibb* (The Canon of

Medicine) (*Avicenna*, 980–1037 CE), *Ali ibn Abbas Majoosi's Kamil-us-Sana'a* (10th century), *Ismail Jurjani's Zakhira Khawarazmshahi* (*Jurjani*, 1042–1137 CE), *Mohammad Akbar Arzani's Tibbi Akbar* (*Arzani*, 17th century), and *Mohammad Azam Khan's Aksir-e-Azam* (*Azam Khan*, 19th century). Each text was examined for its descriptions of the stomach's structure (*Mi'da*), functional roles of each faculty, and their relevance in health and disease. The

interrelationship of these faculties with *mizāj* (temperament), *akhlāt* (humors), and *arwah* (vital forces) was also studied to understand holistic Unani physiology. To contextualize and compare traditional concepts with contemporary biomedical knowledge, modern medical databases were reviewed, including: PubMed, Scopus, and ISI Web of Knowledge.

Table 5 - Overview of Quwwat Dāfia: Functions, Requirements, and Pathological Manifestation

Name	Function	Requirement of Quwwat Dāfia	Perform Function by which Muscle Fibre	Substance which give strength	Substance which give weakness	Causes Of D'uf -al- Dāfia	Symptoms of D'uf-Quwwat Dāfia	Disease	Manifestation (Araaz)
Quwwat Dāfia	This is the Faculty (or power) That expels waste materials from the body.	The substances that are utilized are themselves not capable of being transformed into nourishment. Many of their component are wasteful, useless, and harmful. If these waste materials accumulate in the body and remain there, they can become putrefied and lead to corruption, harm, and disease. Therefore, the expulsive faculty (Quwwat Dāfia) is necessary to eliminate these wastes from the body so that it may remain protected from their harmful effects.	Straight Muscle Fibre (<i>Choray Reshay</i>)	Coldness (<i>Burūdat</i>) Wetness along with coldness (<i>Taribi bamail Sardi</i>)	<i>Insebab (Dam, Balgham, Safra Suda and Sauda)</i>	If it is caused by accumulation (<i>insebab</i>) of <i>Dam, Balgham, Safra Suda</i> , it leads to dissolution in the tissues (leaf), looseness and foulness. The skin becomes thin and watery and Ulcers develop on the surface of the stomach	Prolong retention of food in the stomach, Smell of food in belching, Delay or hastiness in the absorption of food from the stomach, or the nature and strength of food depending on the condition of the stomach. However, if the food is expelled before 12hr or remains for more than 24hr =, it is a sign of ill health.	_Action will be suspended- Colic (<i>Mard qolenj</i>) Action will exceed its normal Limit- Gastroenterit is (Zalakul Amā) Others condition including are belching (<i>fawāq</i>), Gastric Spasm (<i>Tashannuj - e-Mi'da</i>) Or Gastric diarrhea (<i>ishal-e-Ma'di</i>)	Food will stay in the stomach for longer period.

4. Conclusion

The Unani system of medicine presents a holistic and highly integrative approach to human physiology, particularly the gastrointestinal and nutritional processes. Central to this understanding are the five digestive faculties—*Quwwat Jādhība* (Absorptive Faculty),

Quwwat Māsika (Retentive Faculty), *Quwwat Hādīmah* (Digestive Faculty), *Quwwat Mumayyaza* (Disjunctive Faculty), and *Quwwat Dāfi'ah* (Expulsive Faculty)—each of which plays a sequential and complementary role in the assimilation and management of food and nutrients within the body. [1, 2, 3,4,5,6,8,9,24,27]

Quwwat Jādhība initiates the digestive sequence by attracting food into the stomach. It functions through the longitudinal muscle fibres and relies on mechanisms like magnetism, space (*zarurat-e-khila*), and intrinsic heat. Weakness in this faculty may lead to poor appetite, weight loss, and nutritional deficiencies due to inadequate absorption. [2, 3,4,5,7,13,15,16,19,20,27]

Following this, *Quwwat Māsika* retains the ingested food in the stomach to allow complete digestion. This faculty operates through the oblique muscle fibers and is essential for ensuring that food is held long enough to undergo chemical and physical transformation. Its dysfunction results in conditions such as gastric hypermotility, early satiety, and indigestion, highlighting the importance of optimal muscular control and moisture balance within the stomach. [2, 3,4,5,13, 15,16,19, 20]

Quwwat Hādīmah is responsible for breaking down the retained food through heat and moisture, transforming it into a chyme-like substance that is suitable for nutrient extraction. This faculty is closely linked with intrinsic heat (*hararat-e-ghareezia*) and enzymatic secretions. A weakened *Quwwat*

Hādīmah results in indigestion, fermentation of undigested food, foul-smelling belching, and eventually leads to systemic complications such as gas formation, chronic gastritis, and weak blood formation. [2,3,5,6,7,13,16,15] Once digestion is completed, *Quwwat Mumayyaza* plays the role of discerning and distributing the digested nutrients to specific organs according to their needs and temperament. It ensures the compatibility of nutrients with the tissues they nourish. The faculty is so precise that it prevents unsuitable materials from being absorbed, maintaining both structural and functional harmony. Impairment of this faculty leads to nutritional imbalances, tissue incompatibility, and eventual organ dysfunction.[11]

The final stage is governed by *Quwwat-e-Dāfi'ah*, which ensures the expulsion of waste products formed after digestion. It operates through straight muscle fibers and facilitates the movement of digested food to the intestines, followed by elimination through defecation. Dysfunction in this faculty results in retention of waste, constipation, bloating, and conditions like colic, gastric spasms, or diarrhoea. Furthermore, the accumulation of waste due to this dysfunction can lead to toxicity, decreased vitality, and systemic disease. [3,5,7,16,24, 27]

The comprehensive coordination among these five faculties reflects the profound understanding in Unani medicine of both physiological processes and pathophysiological deviations. Each faculty not only plays a physiological role but is also intricately linked with the body's *mizāj* (temperament), *akhlāt* (humors), *a'za* (organs), and *arwah* (vital forces). The failure or weakness of any single faculty may trigger a cascade of dysfunctions across the digestive and systemic networks, thus

highlighting the interconnectedness of bodily systems as emphasized in Unani philosophy. [24,26,27,28]

In conclusion, the Unani conceptualization of digestion is not merely a mechanical process but a dynamic interaction of physical, humoral, and energetic elements. It emphasizes the balance of temperament, the quality of food, and the functional integrity of digestive faculties. The preservation and restoration of these faculties through dietary regulation, lifestyle modification, and therapeutic interventions remain a central goal in Unani practice, underlining the timeless relevance of this traditional medical system in understanding and treating digestive disorders. [22,26,27,28]

The faculties of the stomach in Unani medicine offer a comprehensive and functional understanding of digestion. Each faculty plays a specific role in food intake, digestion, retention, and elimination. Dysfunction in any of these faculties leads to digestive disorders, metabolic imbalances, and systemic diseases. By understanding these faculties, we help in diagnosing and managing the digestive disorder. In this way Unani medicine provides a preventive and therapeutic approach to digestive health through herbal remedies, dietary regulations and lifestyle modifications. Further research should explore the scientific validation of these faculties in modern gastroenterology.

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