



E-ISSN: 2321-2187

P-ISSN: 2394-0514

[www.florajournal.com](http://www.florajournal.com)

IJHM 2021; 9(1): 111-114

Received: 25-11-2020

Accepted: 11-01-2021

**Asim Ali Khan**

Director General, Central Council  
for Research in Unani Medicine,  
Ministry of AYUSH, Govt. of  
India, New Delhi, Delhi, India

**Pawan Kumar**

Research Officer (Pathology),  
Scientist-4, Central Council for  
Research in Unani Medicine,  
Ministry of AYUSH, Govt. of  
India, New Delhi, Delhi, India

**Saad Ahmed**

Consultant (Unani), Central  
Council for Research in Unani  
Medicine, Ministry of AYUSH,  
Govt. of India, New Delhi, Delhi,  
India

**Izharul Hasan**

Consultant (Unani), AYUSH  
Wellness Clinic, President's  
Estate, New Delhi, New Delhi,  
Delhi, India

**Lubna Fatima**

Consultant (Unani), AYUSH  
Wellness Clinic, President's  
Estate, New Delhi, New Delhi,  
Delhi, India

**Shamim**

Research Associate (Unani),  
Central Council for Research in  
Unani Medicine, Ministry of  
AYUSH, Govt. of India, New  
Delhi, Delhi, India

**Corresponding Author:****Asim Ali Khan**

Director General, Central Council  
for Research in Unani Medicine,  
Ministry of AYUSH, Govt. of  
India, New Delhi, Delhi, India

## Novel coronavirus (COVID-19) Etiological characteristics, clinical manifestations and unani management

**Asim Ali Khan, Pawan Kumar, Saad Ahmed, Izharul Hasan, Lubna Fatima and Shamim**

### Abstract

The COVID-19 pandemic is a global health crisis at present and is a big threat to the world. The extremity of COVID-19 varies and depends on a few factors like age, health conditions etc. Limited therapeutic options are available to treat the symptoms associated with COVID-19 and no vaccines against the virus are yet approved for marketing. Therefore, in order to tackle the urgent need of preventive measures is required. All the peoples are following the government rules and the government has taken good attempts to avoid the spreading of virus infection like, quarantine, rapid tests, better treatment and finding out the direct contact people with infected patients. This paper briefs on the epidemiology, clinical features and also lists possible preventive options available and also implementation by Unani system of medicine as per guidelines of central council for research in Unani medicine under ministry of AYUSH so far to prevent covid-19 infection and symptomatic treatment option applicable practically to save the people.

**Keywords:** COVID-19, unani medicine, traditional medicine

### 1. Introduction

The first case of COVID-19 was found in Wuhan China in December 2019, informed of cases of pneumonia unknown Etiology<sup>[1]</sup>. The number of cases of COVID-19 globally surpassed 4 million on 8<sup>th</sup> May 2020. COVID-19 cases have now been diagnosed in 213 territories in 6 continents<sup>[2]</sup>. The extremity of COVID-19 varies and depends on a few factors like age, health conditions etc. Some individuals are asymptomatic initially and can act as carriers of SARS-CoV-2. Some might experience much rare gastrointestinal or cardiovascular symptoms Limited therapeutic options are available to treat the symptoms associated with COVID-19 and no vaccines against the virus are yet approved for marketing. Therefore, in order to tackle the urgent need of therapeutic and preventive measures, a detailed study on the clinical features and management of the disease should be made<sup>[3]</sup>.

#### 1.1 COVID-19 Pandemic and Global Emergency

Coronavirus cases worldwide have crossed the 9.39 million mark and have reached 481K with a total death and so far, 4.72 million people have recovered from the disease as of 24 June, 2020. The country wise infected count shows USA at the top with a total case of 2.43 million and a death count of 124K and so far 747K people have recovered from the disease. Second in line, is Spain with a total infected cases of 247K, followed by Italy and France with a total of 239K and 161K cases respectively, WHO has produced a few measures for the use of masks, diagnosis, prevention and control of the disease, homecare for patients and global surveillance for human infection with COVID-19<sup>[1, 3, 4, 5]</sup>.

#### 1.2 COVID-19 in India

473K COVID-19 cases have been found in whole over India as of 24 June, 2020. Out of these 272K have been cured/discharged, 1 has migrated and 14,894 have died. All confirmed cases are under hospital isolation. Contact tracing and home quarantine is also going on. Maharashtra is the most infected state with 143K cases and Delhi is on the second position with 70,390 cases. The number of cases is increased gradually because of that, the Prime minister extended the quarantine period time to time from May 03 to May 31st, 2020. World health organisation country office for India has also been functioning together with MoHFW on definitive measures, contact tracing, disease prevention and control, containment plan, home quarantine preparedness etc.

All Indians are showing their unity for protecting the nation from coronavirus. All the citizens are following the government rules and the government has taken good attempts to avoid the spreading of virus infection like, quarantine, rapid tests, better treatment and finding out the direct contact people with infected patients. World health organization has requested people to stand together and support the government and overcome this unprecedented issue, says Dr. Henk Bekedam, Indian commissioner at WHO [6-7].

## 2. Etiological Characteristics [1-3]

The epidemic of novel coronavirus (COVID-19) infections that began in China in late 2019 has rapidly grown and cases have been reported worldwide. Covid-19 is a zoonotic, new viral respiratory illness against which we have no natural immunity.

Virus is sensitive to ultraviolet and heat. Exposure to 56 °C for 30 minutes and lipid solvents such as ether, 75% ethanol, chlorine containing disinfectants and peracetic acid can effectively inactivate the virus.

The patients infected by coronavirus are main source of infection.

Asymptomatic infected people can also be a source of infection.

Transmission of the virus mainly through respiratory droplet and close contact. (Coronavirus disease spreads primarily through contact with an infected person when they cough or sneeze. It also spreads when a person touches a surface or object that has the virus on it, then touches their eyes, nose, or mouth).

There is possibility of aerosol transmission in a relatively closed environment for a long exposure in high concentration of aerosol.

Attention should be made to faeces or urine contaminated environmental that leads to aerosol or contact transmission.

## 3. Clinical manifestation [6-7]

Illness ranges in severity from asymptomatic or mild to severe; a significant proportion of patients with clinically evident infection develop severe disease.

The Incubation period is 1 to 14 days, generally 3 to 7 days.

Main symptoms are fever, fatigue and dry cough.

Nasal congestion, running nose, sore throat, myalgia are in few cases.

Severe cases mostly developed dyspnoea or hypoxemia after one week.

It is important to notice that for severe and critical ill patients fever could be moderate to low or even barely noticeable.

The patients with mild symptoms did not develop pneumonia but only low fever and mild fatigue.

Mostly patients have good prognosis and a small number of patients critically ill.

Symptoms in children are relatively mild.

Mortality rate among diagnosed cases (case fatality rate) is generally about 2% to 3% but varies by country to country.

Reported cases in adults of middle age or older are on more risks.

## 4. Diagnostic procedures

Infection should be suspected in persons with a compatible respiratory illness and exposure history (if identified).

In the early stages of disease peripheral WBC count normal or decreased and the lymphocytes count decreases.

Some patients represent an increase in liver enzymes, lactate

dehydrogenase (LDH), muscle enzyme and myoglobin.

Mostly patients have increased C-reactive protein and ESR.

In severe and critically ill cases elevated inflammatory factors.

Novel coronavirus nucleic acid can be detected in nasopharyngeal swabs (Nasopharyngeal swab is preferred; oropharyngeal swab may be submitted in addition), sputum, lower respiratory tract secretion, blood, faeces and other specimen using RT-PCR method. Polymerase chain reaction tests are the standard for diagnosis. Specific methods and availability vary; public health authorities may assist in arranging diagnostic testing in some areas.

It is more accurate if specimens from lower respiratory tract (sputum) are tested.

NCP virus specific IgM becomes detectable around 3-5 days after onset.

**Chest Imaging:** In early stage, chest X-ray shows multiple small shadows and interstitial changes appear in outer lateral zone of lungs.

As the disease progress, imaging then shows multiple ground glass opacities and infiltration in both lungs (Chest imaging eg. plain radiography, CT, ultrasonography) has shown abnormalities in most reported patients).

In severe cases, pulmonary consolidation may occur.

## 5. Differential diagnosis

Bacterial pneumonia

Other known viral pneumonia such as influenza virus, adenovirus etc.

Mycoplasma pneumonia infections.

## 6. General treatment

A suspect case should be treated in isolation in a single room.

Confirmed cases can be treated in isolation in single room.

Critical cases should be admitted to ICU as soon as possible.

Strengthening support therapy

Closely monitoring vital signs and oxygen saturation.

Monitoring blood routine result, urine routine result, C - reactive protein (CRP), Liver enzyme, myocardial enzyme, renal function test, arterial blood gas analysis, chest imaging and cytokines detection.

Providing effective oxygen therapy.

## 7. Treatment of severe and critical cases

- Symptomatic Treatment
- Prevent complications
- Treat underlying diseases
- Prevent secondary infections
- Provide organ function support.
- Respiratory support
- Oxygen therapy
- Noninvasive mechanical ventilation
- Rescue therapy
- Immunotherapy

## 8. Discharge criteria

Body temperature is back to normal for more than 3 days.

Respiratory symptoms improve obviously.

Pulmonary imaging shows resolution of inflammation.

Nucleic acid tests negative twice consecutively on respiratory tract samples such as sputum and nasopharyngeal swabs being at least 24 hours.

In hospitalized patients with proven COVID-19, repeated testing is recommended to document clearance of virus,

defined as 2 consecutive negative results on polymerase chain reaction tests at least 24 hours apart.

## 9. The experience

Early Detection  
Promote reporting  
Swift isolation  
Early Treatment

## 10. Key points of self protection for medical staff

Hand hygiene  
Wearing and removing mask  
Correct removal of protective equipment

## 11. Complications

Most common complication is acute respiratory distress syndrome; other reported complications include shock.

## 12. Prevention

There's currently no vaccine to prevent coronavirus disease (COVID-19).

It is advised to wash hands regularly for 20 seconds, with soap and water or alcohol-based hand rub

It is advised to cover nose and mouth with a disposable tissue or flexed elbow when cough or sneeze

Avoid close contact (1 meter or 3 feet) with people who are unwell Stay home and self-isolate from others in the household if feels unwell. Physical distancing should be used as much as possible.

It is advised not to touch eyes, nose, or mouth if your hands are not clean.

## 13. Concept of Wabaiya Amraz (Epidemics) in Unani System of medicine

According to the Unani concept, it has been characterized under the heading of an epidemic fever (*Humma Wabaiya*), the manifestations are comparable or look like that of present COVID-19 virus and different strains, fever, having a foul smell, high pitch breath, breathlessness, polydipsia, dry tongue, sickness, loss of hunger, stomach pain, anxiety, and uneasiness, sleep deprivation, weakness, pink skin rashes which in some cases rise rapidly yet evaporate gradually, mouth ulceration, and so forth individuals who carry on with a dull life, hypersexuality and weak immunity are progressively inclined to the viral contamination<sup>[9]</sup>.

## 14. Clinical evaluation of Unani drugs for management of Covid-19 at AYUSH Wellness Clinic

Keeping above facts regarding Covid-19, since there is no vaccination and therapeutic options are available, following few Unani formulations have been recommended in the Advisory issued by Ministry of AYUSH, Govt. of India and as preventive measures for COVID-19, these drugs will be assessed at AYUSH Wellness Clinic.

**ArqAjeeb**<sup>[10, 11]</sup>: It is a Unani formulation consisting of plant extracts of *Mentha arvensis L.*, seeds extract of *Trachyspermum ammi L.* and Camphor. It is reputed for its beneficial effects in the treatment of *Nazla Wabai* (Epidemic flu), diarrhoea and cholera.

**TiryaaqArba**<sup>[12]</sup>: IbnSina described that the healthy persons who utilize *Tiryaaq* will not suffer by any kind of infectious disease as it promote strengthening the *Rooh* and health maintenance<sup>[13]</sup>. According to Ismail Jurjani mentioned in his

book *Zakheera khawarzam Shahi*; use of *Tiryaaq* during epidemics is beneficial as it strengthen heart, keeps the faculties strong and prevents sepsis<sup>[14]</sup>. Jalinoos mentioned his opinion that the healthy persons who used *Tiryaaq* as prophylactic drug did not affected from epidemic and infectious diseases<sup>[15]</sup>.

**Habbe Mubarak**: National Formulary of Unani Medicine (NFUM) published by Government of India, Ministry of AYUSH indicated this formulation for *Humma-e-Ajamiya* (Malarial fever) and *Dafe Tap* (antipyretic)<sup>[16]</sup>. Ingredients of this formulation as per NFUM and Qarabadeene Sarkari Unani part II; *Kaifal* (*Myrica esculenta* 1 part and *Maghzekaranjwa* (*Caesalpinia bonducella* 2 parts)<sup>[17]</sup>.

**LaoqSapista**: Laoq is Arabic word for Licking. The principle ingredients of this medicine is *Sapistan* (*Cordia dichotoma*, *C. latifolia* fruit), and hence the medicine is *LaoqSapistan*. This Unani formulation is used in the treatment of *Nazla* (catarrh), *Sual-e-Muzmin* (chronic cough), respiratory ailments and having properties *Munaffis* (expectorant). It reduces inflammation of the pharynx (sore throat), tonsils and the voice box from overuse, irritation or infection<sup>[18]</sup>. It exhibits significant anti-bacterial activity and is used to treat upper respiratory tract infections<sup>[19]</sup>.

**Habbe Bukhar**: It is a polyherbal compound formulation and useful in viral as well bacterial fever. It works as an antipyretic. In Unani terminology it is beneficial in all kinds of *balghami* (Phelgum), *safrawi* (Bile) & *murakkabbukhar* (Compound Fever). It is suggested as an antipyretic to lower the body temperature for clinical management of *Humma-e-Hadda*<sup>[20]</sup>.

**Habbe Surfa**: The drug is a solid preparation (pill) main ingredient *Asl-us-Soos* (Glycyrrhizaglabra) and *Maghz-e-Tukhm-e-Kaddu Shireen* (*Cucurbitamoschata Duché*), it is having *Musakkin-e-Sual* (Cough relaxant) property and therapeutically used for *Sual* (Bronchitis).

**Sharbat Sadr**: Sharbat Sadr is a effective syrup for influenza, bronchitis and lung/respiratory tract maladies. It assists with soothing side effects of a wide range of influenza, rash and bronchitis. SharbatSadr is additionally a immunity supporter medication that expands insusceptibility and help secure against any popular infections<sup>[21]</sup>.

**Habbe Hindi Zeeqi**: It is indicated for asthma, pneumonia and chronic bronchitis.

**Habbe Asgand**: Habbe Asgand is advised to given as a rejuvenating tonic, anti-inflammatory agent, aphrodisiac and an immunity boosting formulation. Habbe asgand increases the count of white blood cells and prepares the body to produce antigens against various infections and boosts brain function and lowers blood sugar, fight symptoms of anxiety and depression.

Above mentioned formulations are used as immunity enhancers, prophylactic approach and to reduce symptoms found in COVID-19. The following steps can also be followed<sup>[8]</sup>:

**Breaking chain of transmission** as issued by WHO and advised guidelines of Ministry of AYUSH may be followed by creating awareness among peoples who are visiting clinic.

**Immunity enhancers:** By providing immunity enhancers like *Habbe Asgand* etc. to old aged people as well as to other patients based on their clinical history.

**Prophylactic approach:** As a prophylactic, few drops of *ArqAjeeb* in water for consumption or inhalation form for a period of 3 days may be advised.

**Symptomatic approach:** This approach will be based on symptoms after clinical examination/history like dry cough, fever, sore throat, body-ache, vomiting or difficulty in breathing.

## 15. Conclusion

People infected by the coronavirus usually experience coughs, fever and difficulty in breathing. In extreme cases organ failure is a possibility. Till now particular medication for the coronavirus which means it is tough for elderly people with existing medical problems or people with weak immune system to protect them. Cleaning hands regularly and avoiding close contact with other people is crucial. The most crucial point in the control of spreading the virus among people is to take care of one self and follow the precautions as directed by health organisations and CCRUM under Ministry of AYUSH, India and follow the old concept of virology manifestations, indications mentioned in Unani literature and the customary treatment for better outcomes against recently emerged coronaviruses.

## 16. References

1. Who.int/Novel Coronavirus (2019-nCoV) Situation Report-1, 21 January 2020.
2. WHO. Coronavirus Disease 2019 (COVID-19): Situation Report--51. WHO website. Published March 11, 2020. Accessed May 8, 2020.
3. Lei, Li J, Li X, Qi X. CT imaging of the 2019 novel coronavirus (2019-nCoV) pneumonia, Radiology 2020. 200236, <https://doi.org/10.1148/radiol.20200236>.
4. World Health Organization. Infection prevention and control during health care when COVID-19 is suspected.
5. <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf>
6. Oke J et al. Centre for Evidence-Based Medicine: Global Covid-19 Case Fatality Rates. CEBM website.
7. CDC. Coronavirus Disease 2019 (COVID-19) Situation Summary. CDC website. Updated March 26, 2020. Reviewed March 26, 2020. Accessed May 8, 2020.
8. Guidelines for Unani Practitioners in the wake of Covid-19 pandemic, CCRUM, Janakpuri New Delhi
9. Razi ABMZ. KitabulHavi New Delhi: CCRUM 2008.
10. National Formulary of Unani Medicine published by Government of India, Ministry of AYUSH 2006;1:211.
11. Gilani GI. Makhzanul Murakkabat WaMouallim-e-Dawa Sazi. Delhi, India, Kutub Khana Anjuman Taraqqi Urdu 1938, 250.
12. National Formulary of Unani Medicine published by Government of India, Ministry of AYUSH 2006;1:154.
13. Ibn Sina. *Alqanoon FilTib* (Urdu Translation by G.H Kanturi). New Delhi: Idara KitabulShifa; 2010;(2):522.
14. Jurjani Ismail. *Zakheerakhawarzam Shahi* (Urdu translation by HadiHasan Khan). New Delhi: Idara Kitabul Shifa 2010;5:94.
15. Kabeeruddin M. *Bayaz e kabeer*. Siddiqui publication, Lahore; YNM 12, 36.

16. National Formulary of Unani Medicine published by Government of India, Ministry of AYUSH 2006;1:24.
17. Govt. Unani Pharmacopoeia. Part-1, Hyderabad: Govt Indian pharmacy Unani Hyd. A.P 1988, 171.
18. National Formulary of Unani Medicine. Central Council for Research in Unani Medicine, Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India: New Delhi 2008, 1-116.
19. Latif A, Tafseer MB, Rauf A, Khan AU, Rehman Laooqsapistan S. A Unani herbal formulation. Int. J. Pharm. Res. Bio383 Science 2013;2:67-77.
20. Anonymous. National Formulary of Unani Medicine published by Government of India, Ministry of AYUSH 2006;1:13.
21. National Formulary of Unani Medicine published by Government of India, Ministry of AYUSH 2006;1:224.