



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2021; 10(6): 921-925

© 2021 TPI

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

Received: 08-04-2021

Accepted: 23-05-2021

**Chanchal Kumar Das**

Research Scholar, Seacom Skills  
University, Bolpur, Birbhum,  
West Bengal, India

**Dr. Suparna Sanyal Mukherjee**

Ph.D., Department of Social  
Science, Seacom Skills  
University, Bolpur, Birbhum,  
West Bengal, India

**Corresponding Author:**

**Chanchal Kumar Das**

Research Scholar, Seacom Skills  
University, Bolpur, Birbhum,  
West Bengal, India

## Corona virus and lung cancer have some common symptoms

**Chanchal Kumar Das and Dr. Suparna Sanyal Mukherjee**

### Abstract

Today, the Corona virus is spreading all over the world in the form of a pandemic, in the same way, lung would go on losing millions every year from cancer, so to understand it in general, a comparative study is presented here, and I am trying to tell that There are some similarities between the symptoms of both diseases.

**Keywords:** Corona virus, pandemic, lung cancer, symptoms

### Introduction

Corona viruses are zoonotic diseases. This means they first develop in animals before being transmitted to humans. For the virus to be transmitted from animals to humans, a person has to come into close contact with an animal that carries the infection.

Once the virus develops in people, corona viruses can be transmitted from person to person through respiratory droplets. This is a technical name for the wet stuff that moves through the air when you cough, sneeze or talk.

The viral material hangs out in these droplets and can be breathed into the respiratory tract (your windpipe and lungs), where the virus can then lead to an infection.

### How It Spreads

The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air and quickly fall on floors or surfaces.

You can be infected by breathing in the virus if you are within proximity of someone who has COVID-19, or by touching a contaminated surface and then your eyes, nose or mouth.

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization only homely treatment and rest.

### Most common symptoms

Fever

Dry cough

Tiredness

Less common symptoms:

Aches and pains

Sore throat

Diarrhoea

Conjunctivitis

Headache

Loss of taste and smell

A rash on the skin, or discolorations of fingers or toes

### Others Symptoms

Difficulty breathing or shortness of breath Chest pain or pressure Loss of speech or movement Seek immediate medical attention if you have serious symptoms. Always call before visiting your doctor or health facility.

People with mild symptoms who are otherwise healthy should manage their symptoms at home. On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days.

Anyone can have mild to severe symptoms.

Older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness.

People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. People with these symptoms may have COVID-19:

### Serious Symptoms

Trouble breathing Persistent pain or pressure in the chest new confusion Inability to wake or stay awake Bluish lips or face

**Table 1:** Symptoms of Diseases (WHO Report2020)

SL	Symptom	Cases
01.	High Temperature (fever)	99% Percent
02.	Fatigue	70% Percent
03.	A Dry Cough	59% Percent
04.	Loss of appetite	40% Percent
05.	Body aches	35% Percent
06.	Shortness of breath	31% Percent
07.	Mucus or Phlegm	27% Percent

Symptoms usually begin 2 to 14 days after you come into contact with the virus.

**Table 2:** Death Rate of Corona Virus (WHO Report 2020)

SL	Age Groups	Percentage%
01.	People over 80 years old	14.82%
02.	Among people aged 70-79 years	8.0%
03.	Among people aged 60-69 years	3.6%
04.	Among people aged 50-59 years	1.3%
05.	Among people aged 40-49 years	0.4%
06.	Among people aged 10-39 years	0.2%
07.	Among children up to 09 years	0.01%

### Precaution

1. Practice Social Distancing: Avoid gatherings such as a fair, market, shop, gatherings in religious places, social functions etc. Maintain a safe distance of at least two meters between you and other people when in public places, especially if they are having symptoms such as cough, fever etc. to avoid direct droplet contact. Stay at home as much as possible. Avoid physical contact like handshakes, hand-holding, hugs. Touching surfaces such as tabletops, chairs, door handles etc.
2. Practice good hygiene wash your hands frequently using soap and clean water after coming home from outside or meeting other people especially if they are ill. Staying physically active, take a healthy diet and use at least a three-layer mask of fine cloth. The face masks wash after use daily in warm water with antiseptic liquid and a maximum of thirty times then change. The face, mouth and nose covered when you go to a public place.

One more thing to keep in mind is that whenever a dead body of a Corona patient's is being taken for cremation, the dead body should be well covered. Although the deceased cannot sneeze, cough and spit yet the dead body may decompose after a long time and fear of infection.

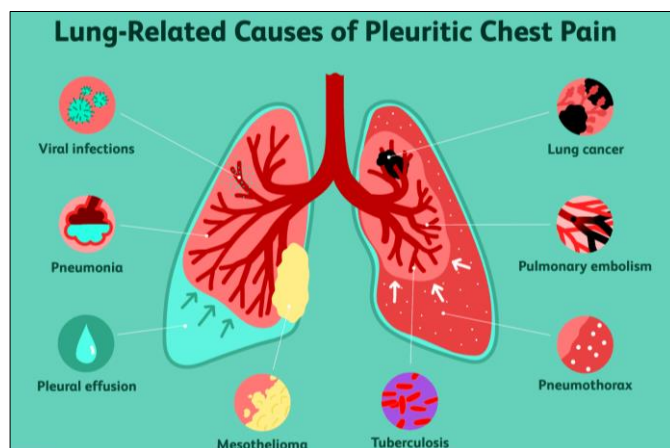
### Summary

The field of corona virology has advanced significantly in

recent years. The SARS epidemic was a dramatic reminder that animal corona viruses are potential threats to the human population. However, the exact mechanism of species-to-species spread of the SARS corona virus remains obscure. NL63 has been identified in many countries. This virus and the related viruses NL and HCV-NH are likely the cause of a substantial proportion of respiratory tract disease in infants and children. The impact of HKU1 is not yet known. It seems clear that the corona viruses infecting humans and causing respiratory disease are heterogeneous and quite widely distributed among groups I and II. It may be that some of the newer Corona viruses represent strains similar to the original B814 and OC strains that could not be further characterized in the 1960s. Additional human Corona virus strains will very likely be discovered, which stresses the need for further investigation into the virology and aetiology of these infectious organisms.

### Lung cancer

It is one of the most prevalent malignant neoplasms all over the world. It accounts for more cancer deaths than any other cancer, but not as much focus as Corona virus. It is increasingly being recognized in India.



**Fig 1:** Structure and Function of the Lung

### Structure and Function of the Lung

The lungs are a pair of sponge-like cone-shaped organs in the chest. These are part of our respiratory system. The left lung is smaller because the heart occupies space on the left side. The lungs are slightly different from each other; the Right lung has three lobes, whereas the left one has two portions. They covered by a thin covering called 'pleura' which protects and helps the lungs move back and forth as they expand and contract during breathing. A small, dome-shaped muscle below the lungs called the 'diaphragm' separates the chest from the abdomen. The diaphragm moves up and down during breathing, forcing air in and out of the primary function of the lungs is to exchange oxygen between the blood through the breath. When we breathe in (inhale), oxygen enters into the body through the lungs, and when we breathe out (exhale), carbon dioxide sent out of the body Air enters the lungs through the nose or mouth via the windpipe (trachea) which divides into two airways going into the right and left lung each. These airways are called 'bronchi' (singular, bronchus). Inside each lung, the bronchus divides further into smaller tubes, the 'secondary bronchi' which again subdivide into smaller branches called bronchioles. At the end of the bronchioles are tiny air sacs known as 'alveoli'.

Many tiny blood vessels that run through these alveoli perform the function of exchange of gases.

Earlier in the year 1970, many patients were admitted as TB patients in various hospitals of our country, who died within a month, most of them were patients of Lung Cancer, not TB. Doctors

believe that they were not TB patients as the Death of TB patients does not happen so soon. Up until the 1930s, lung cancer was considered incurable, and patients died within a few months, with only a handful surviving for a year after diagnosis. In 1933s, the very first attempt made to use surgery as a treatment for lung cancer.

**Table 3:** Lung Cancer in India Table<sup>3</sup> (Source Globocon-2018)

Lung Cancers	New Cases	Deaths
Men	48698	45363
Women	19097	18112
Both Sex	67995	63475

It is the commonest form of cancer found in men & women across the globe. Talking about statistics of lung cancer in India, each year approximately 90,000 men & 80,000 women are diagnosed with cancer of lung & bronchi. It claims more lives than breast, colon, prostate and ovarian cancers combined. Usually the age bracket is mid 50s in Indians and 60s in western population.

Lung cancer originates from the tissues of the lung, usually from cells lining the air passages. The two main types are small-cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC).

These types are diagnosed based on how the cells look under a microscope. More than 80% of all lung cancers belong to the non-small cell type. The three significant sub-types of non-small cell lung cancer are adenocarcinoma, Squamous cell carcinoma and large cell carcinoma. It is the second most common cancer in men and the fifth most common cancer in both men and women together. It can spread to distant parts of the body through the blood and lymphatic vessels. It's called metastasis. Nearly 40% of those people newly diagnosed with lung cancer already have metastasis to other parts of the body, e.g. lymph nodes liver, bone, brain, adrenal gland etc. The mean age for getting lung Cancer: 54.6 years. The majority of lung cancer patients are more than 65 years of age. Males predominate with a Male: Female ratio of 4.5:1 and this ratio varies with age and smoking status. The ratio increases progressively up to 51-60 years and then remains the same. The smoker to non-smoker ratio is high up to 20:1 in various studies.

Lung cancer originates from the tissues of the lung, usually from cells lining the air passages. The two main types are small-cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). These types are diagnosed based on how the cells look under a microscope. More than 80% of all lung cancers belong to the non-small cell type. The three significant sub-types of non-small cell lung cancer are adenocarcinoma, Squamous cell carcinoma and large cell carcinoma. It is the second most common cancer in men and the fifth most common cancer in both men and women together. Lung cancer starts in the cells of the lung. A cancerous (malignant) tumour is a group of cancer cells that can grow into and destroy nearby tissue. It can also spread (metastasize) to other parts of the body. When cancer starts in lung cells, it is called primary lung cancer. Lung cancers divided into two categories (i) none small cell lung cancer, (ii) small cell lung

cancer based on the type of cell in which the disease started.

### Type of lung cancer

None-small cell lung cancer usually begins in epithelial cells on the outer part of the lung. This type of cancer is called adenocarcinoma. Non-small cell lung cancer can also start in flat, thin cells called Squamous cells. These cells line the bronchi, which are the large airways that branch off from the windpipe (trachea) into the lungs. This type of cancer is called squamous cell carcinoma of the lung.

Small cell lung cancer usually starts in cells that line the bronchi in the centre of the lungs. The main types of small cell lung cancer are small cell carcinoma and combined small cell carcinoma (mixed tumour with squamous or glandular cells).

### Symptoms of Lung Cancer

Most lung cancers don't cause symptoms until the disease has advanced, in part because the lungs have few nerve endings. When lung cancer does cause signs in its early stages, they may vary from person to person but commonly include:

A new cough that is persistent or worsens or a change in an existing chronic cough  
Cough that produces blood  
Pain in the chest, back or shoulders that worsens during coughing, laughing or deep breathing  
Shortness of breath that comes on suddenly and occurs during everyday activities  
Unexplained weight loss  
Feeling that you are tired or weak  
Loss of appetite  
Lung infections such as bronchitis or pneumonia that won't go away  
Hoarseness or wheezing  
less common symptoms of lung cancer may include:

Swelling in the face or neck  
Difficulty swallowing or pain while swallowing  
Changes in the appearance of fingers, called finger clubbing  
Although most of these symptoms are more likely to be caused by something other than lung cancer, it's important to see a doctor. Discovering lung cancer early may mean more treatment options are available.

Advanced stages of lung cancer are often characterized by the spread of cancer to distant sites in the body. This may affect the bones, liver or brain. As other parts of the body are affected, new lung cancer symptoms may develop, including:  
Bone pain  
swelling of the face, arms or neck  
Headaches, dizziness or limbs that become weak or numb  
Jaundice  
Lumps in the neck or collarbone region

### Early symptoms

#### Small cell lung cancer (SCLC)

Persistent cough  
Chest pain that gets worse with deep breathing, laughing or coughing  
Hoarseness  
Unexplained loss of appetite and weight  
Coughing up blood or rust-coloured phlegm  
Shortness of breath  
Feeling weak and/or tired  
Bronchitis, pneumonia or other infections that keep recurring  
Wheezing  
Symptoms of advanced-stage SCLC:

Bone pain  
Headaches, dizziness or limbs that become weak or numb  
Jaundice  
Lumps in the neck or collarbone region

**Non-Small Cell Lung Cancers (NSCLC)** may grow slowly over some time before symptoms develop.

Common NSCLC symptoms include:

Persistent coughing, particularly without any known cause

A cough that produces blood or red-coloured phlegm (hemoptysis)

Chest pain or painful breathing

Difficulty breathing or shortness of breath

Fatigue or feeling unusually weak or tired

Hoarseness or wheezing  
Frequent upper-respiratory infections, like bronchitis or pneumonia  
Bone pain

### Elements of Lung Cancer

1. Use of Tobacco Products
2. Air Pollution
3. Food Habit
4. Water Pollution
5. Habit of Alcohol
6. Asbestos
7. Arsenic
8. Nickel refinery works
9. Radiation
10. Haematite mining
11. Hard rock mining
12. chloromethyl
13. Ethers and mustard gas
14. Soots, tare
15. Oil and coke
16. Cadmium
17. Lead
18. Mercury

### Suspected Causes:

Acrylonitrile, beryllium and Dimethyl sulphate

Indoor Air Pollution Numerous forms of indoor air pollution are possible in the modern home. Air pollutant levels in the home increase if not enough outdoor air is brought in to dilute emissions from indoor sources and to carry indoor air pollutants out of the home. In addition, high temperature and humidity levels can increase the concentration of some pollutants. Indoor pollutants can be placed into two groups, biological and chemical.

Biologic Pollutants

Biologic pollutants include bacteria, moulds, viruses, animal dander, cat saliva, dust mites, cockroaches, and pollen. These biological pollutants can be related to some serious health effects. Some biological pollutants, such as measles, chickenpox, and influenza are transmitted through the air. However, the first two are now preventable with vaccines. Influenza virus transmission, although vaccines have been developed, remains of concern in crowded indoor conditions and can be affected by ventilation levels in the home.

### Lung Cancer Prevention

Even though there is no definite way for lung cancer prevention but risk factors can surely be reduced by taking the proactive measures mentioned below.

#### 1. Do Not Smoke

If you smoke, quit immediately and if you don't, never start. Staying away from tobacco is the best thing you can do to keep away from lung cancer.

Even if you've been smoking for years, quitting will cut down your risk drastically. If you find it difficult to quit, there is medical help available. You can talk to your doctor for various aids which can help you in quitting smoking.

#### 2. Avoid Second-hand Smoke

If you live or work in an environment where you have somebody who smokes, ask them to quit or ask him to smoke away from you. Avoid areas where the atmosphere is full of

cigarette smoke. Opt for smoke-free zones in restaurants and pubs.

#### 3. Test your home for radon levels

If you live in areas where radon levels are known to be high, get your home radon levels checked as well.

#### 4. Stay away with asbestos

Try to keep away from asbestos fiber as it may cause lung cancer. If you work in a place where asbestos is being used, try to follow all safety measures provided by the company like wearing a mask or respirator to avoid breathing in asbestos fibers.

#### 5. Avoid carcinogens at the workplace

Protect yourself against exposure to toxic chemicals if that is a part of your work. Follow safety guidelines & measures like wearing a mask etc.

#### 6. Avoid unnecessary radiation exposure

Do not go for needless x rays at frequent intervals. Avoid radiation exposure as much as possible.

#### 7. Maintain a healthy lifestyle

Eat a healthy, nutritious and well-balanced diet full of fruits, vegetables and grains. Exercise at least 5 days a week. Research says that eating high-fiber, a low-fat diet, which includes fresh fruit and vegetables at least five portions/day and plenty of whole grains can help in reducing the risk of lung cancer, other types of cancers and heart disease as well

#### 8. Limit alcohol intake

It is observed that certain types of alcoholic beverages like heavy consumption of beer and hard liquor is found associated with an increased risk of developing lung cancer.

#### 9. Lung Cancer Screening Tests

Screening tests:

To keep a check on your health status, go for regular lung cancer screening tests and full body checkups. Chest x-ray once in two years should be done as a routine.

#### 10. Early Detection of Lung Cancer

Early detection of lung cancer is the key factor in the good prognosis of the disease. Preventive health checkups will help in determining the overall health status of the body. Indus Health Plus offers several checkup packages which can help in catching diseases at an early stage.

Hence it is seen that many symptoms of the above diseases are similar. Some necessary measures have been observing to prevent lung and Corona infection.

1. Smoking is always done in a sitting and in a relaxed mood, not while drinking tea/coffee, in the office or while doing any work, in the time discussion in the meeting, while eating food, while walking or driving vehicles such as cars, bikes and bicycles, inside the toilet and bathroom.
2. It is necessary to do some regular exercise such as swimming, breathing in and out of the water, in the early morning excursion in the open air for at least 30 to 40 minutes.
3. Take vitamin C supplements regularly.
4. Orange, Moosambi, Pomegranate, pineapple, Pomelo and Lemon juice should be taken daily at least one glass or



- 100 gm.
5. Do not keep the smoke from cigarette/bidi for a long time in the body and mouth and remove it altogether.
  6. Do not share it with anyone else while burning cigarettes.
  7. Avoid dusty areas, pollution of asbestos, smoke coming out of coal and vehicles, and from chemical impurities, and do not ingest them using a mask for protection.
  8. Get the doctor to check lung and chest regularly.
  9. Stay away from a place where many people are smoking together.
  10. Eat fast, digestible food and avoid foods with acid and oil-fat.
  11. Take a disciplined life as you sleep, and wake up in time, take complete sleep, stay in a clean environment, pay attention to the cleanliness of the whole body and avoid a passive lifestyle.
  12. Drink more water and hot tea/coffee. Do not use strong preservative, high fatty or chemicals process food.
  13. Eat much of the ingredients received from nature.
  14. If it's possible swimming regularly for at least half an hour in the pond or swimming pool. Inhale the fresh air and exhale inside the water (lake, pond or swimming pool) with a long breath for at least fifteen seconds over the water, doing this process ten to twelve times in the morning becomes a lung exercise, which is very important to keep the lung healthy and robust.
- Norwegian population. *Nor Epidemiol* 2012;22:109-120.
6. Hussain SP, Harris CC. Inflammation and cancer: an ancient link with novel potentials. *Int. J. Cancer*. 2007;121:2373-2380.
  7. Kanterman J, Sade-Feldman M, Baniyash M. New insights into chronic inflammation-induced immunosuppressant. *Semin. Cancer Biol.* 2012;22:307-318
  8. Smyth MJ, Ngiow SF, Ribas A *et al.* Combination cancer immunotherapies tailored to the tumour microenvironment. *Nat. Rev. Clin. Oncol* 2016;13:143-158

### Conclusion

In our country, people are afraid to touch the dead body of a Corona patient for fear of infection. Remember we need to wear our masks not just to protect ourselves but to protect other people from us our sneezes and coughs as well. I understand that because of this pandemic situation and staying in quarantine people are becoming frustrated and their saturation points are being hit but still, we need to follow minimum guidelines for the betterment of other people as well as for us. On the contrary, the deceased of a cancer patient does not spread cancer to whoever comes in contact with it. So, make sure to not be a part of this taboo and to not treat the cancer patients or their dead bodies as untouchables. Because maintaining self precaution is a different thing and being prejudice is different. In the end, I would like to say that keeping in mind the instructions of the World Health Organization, even after taking the vaccine, use a mask to protect yourself and others and also avoid crowded places.

### Reference

1. The world health organization (WHO) guidance on COVID-19 on 17 July 2020.
2. United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects 2019: Highlights [Internet]. 2019. <https://www.un.org/development/desa/publications/world-population-prospe...> Accessed August 21, 2019.
3. Ferlay J, Colombet M, Soerjomataram I *et al.* Estimating the global cancer incidence and mortality in 2018: GLOBOCAN sources and methods. *Int J Cancer*. 2019;144:1941- 1953. - PubMed
4. DeSantis CE, Miller KD, Dale W *et al.* Cancer statistics for adults aged 85 years and older, 2019. *CA Cancer J Clin* 2019;69(6):452- 467. - PubMed
5. Syse A, Veenstra M, Agnes B, Tretli S. Cancer incidence, prevalence and survival in an ageing