**MATRIC NUMBER: 18/MHS01/160**

**NAME: FASIPE BLESSING**

**COURSE CODE : ANA 204**

**ASSIGNMENT**; Explain the histological basis of the upper respiratory system( conducting portion of the respiratory system) affected by Corona.

COVID-19 (previously known as “2019 novel coronavirus”) is caused by a virus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

The virus is spread through droplets transmitted into the air from coughing or sneezing, which people nearby can take in through their nose, mouth or eyes. The viral particles in these droplets travel quickly to the back of your nasal passages and to the mucous membranes in the back of your throat, attaching to a particular receptor in cells, beginning there.

Coronavirus particles have spiked proteins sticking out from their surfaces, and these spikes hook onto cell membranes, allowing the virus’s genetic material to enter the human cell.

The receptor for this coronavirus is abundantly expressed in certain progenitor cells. These cells normally develop into respiratory tract cells lined with hair like projections called cilia that sweep mucus and bacteria out of the lungs.

As replications of the virus multiply, they infect neighboring cells. The symptoms often start in the back of the throat with a sore throat and a dry cough. They then move progressively ddown the bronchial tubes.

When the virus reaches the lungs, their mucous membranes become inflamed. That can damage the alveoli or lung sacs. If swelling starts, it makes it that much more difficult for oxygen to move across the mucous membrane.

The swelling and the impaired flow of oxygen can cause those areas in the lungs to fill with fluid, pus and dead cells. Pneumonia, an infection in the lung, can occur.

Chest radiographs typically shows ground glass opacities and focal consolidation, especially in the **peripheral** **and subpleural regions of the lower zones**. Those opaque areas can scatter and thicken in places as the illness worsens, creating what radiologists call a “crazy paving” pattern on the scan. Progressive involvement of both lungs is common and can take some few days to reach the upper respiratory tract, the trachea and other central airways.

The infection can spread through the mucous membranes, from the nose down to the rectum. While the lungs may seem like the only place being affected, it may also be able to infect cells in the gastrointestinal system, which causes symptoms like diarrhea or indigestion. Diarrhea is the most common extrapulmonary manifestation, accompanied by hepatic dysfunction, dizziness, which may be related to diastolic urinalysis.

The virus can also get into the bloodstream. Bone marrow and organs like the liver can become inflamed too. The virus will eventually reach organs like the heart, the kidney, the liver, and may cause some direct damage to those organs.

Hyaline membranes, inistitial infiltrates of inflammatory cells, bronchiolar injury with loss of cilia, bronchiolar epithelium denudation and focal deposition of fibrin were noticed. Other pulmonary complications may include secondary bronchopneumonia and invasive aspergillosis.

The elderly may present atypically without fever or respiratory symptoms. While children infected with the virus have milder symptoms than adults. The virus (SARS COV 2) in pregnant women have a high risk of mortality.

There is no known cure or antiviral agent for the virus yet so patients diagnosed with the virus have to be put on supportive care.