NAME :=> EMMA-OJOBAH I. DIVINE-FAVOUR
MAT NO :=> 18/MHS03/003
COURSE CODE : ANA 204
DEPARTMENT :=> ANATOMY
DATE : THURSDAY, APRIL 09, 2020
QUESTION :=> EXPLAIN THE HISTOLOGICAL BASIS OF UPPER RESPIRATORY SYSTEM CONDUCTING PORTION OF THE RESPIRATORY SYSTEM ATTACKED BY CORONA VIRUS (COVID-19)

ANSWER :=> Covid-19 is an acute respiratory syndrome that infects the respiratory and immune system. It leads to severe injury in the lungs and dissemination of the virus to several other organs. It targets the epithelial cells of the respiratory tract resulting in diffuse alveolar damage. Several organs/cell types maybe infected in the course of this illness, Including mucosal cells of the intestines, tubular epithelial cells of the kidneys, neurons of the brain, and certain types of immune cells. It is transmitted to humans by direct contact, droplet, and airborne routes. The lungs displays :=> extensive edema, hyaline membrane formation, collapse of alveoli, desquamation of alveolar epithelial cells, fibrous tissues in alveolar spaces. The longer the disease duration features of fibrous organization of Diffuse Alveolar Damage appears after 10-14 days. The longer the duration of the virus in the body the more extensive becomes the fibrous organization of lung tissue.

Large multinucleated cells are normally found in or observed in the lungs of covid-19 patients. these cells are identified as macrophages and Pneumocytes.

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- squamous metaplasia of bronchial and alveolar epithelial cells,
- sub pleural proliferation of fibrogranullative tissue in small airways and airspaces
- loss of cilia of bronchiolar epithelial cells
- hemophagocytosis in mononuclear cells residing in pulmonary tissue.
- vascular injury
- apoptosis in epithelial cells monocytes/macrophages lymphocytes, and pneumocytes.