



ISSN: 0975-833X

Available online at <http://www.journalera.com>

INTERNATIONAL JOURNAL  
OF CURRENT RESEARCH

International Journal of Current Research  
Vol. 13, Issue, 01, pp.15554-15556, January, 2021

DOI: <https://doi.org/10.24941/ijcr.40554.01.2021>

## RESEARCH ARTICLE

# INDUCTION INHALATION -A NOVEL SUGGESTIVE APPROACH FOR THE TREATMENT OF COVID-19

Ayesha Mariya\*<sup>1</sup> and Mohammad Masood<sup>2</sup>

<sup>1</sup>Th. H.N. Singh P.G. College, Prayagraj; <sup>2</sup>Institute of Applied Sciences, Prayagraj

### ARTICLE INFO

#### Article History:

Received 14<sup>th</sup> October, 2020  
Received in revised form  
29<sup>th</sup> November, 2020  
Accepted 17<sup>th</sup> December, 2020  
Published online 30<sup>th</sup> January, 2021

#### Key Words:

Hygiene, sanitization, Respiratory etiquette, Aspirin, Dexamethasone, Nitroglycerine, Diethylether, Sevoflurane, Mixture of diethyl ether and sevoflurane, Covid-19, Possible treatment.

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Citation: Ayesha Mariya and Mohammad Masood. "Induction inhalation -a novel suggestive approach for the treatment of Covid-19", *International Journal of Current Research*, 13, (01), 15554-15556.

### ABSTRACT

COVID-19 a pandemic declared by WHO, spreads through droplets has inflicted a heavy toll of life and great loss to economy throughout the globe. The remedial measure include personal hygiene (washing hands with soap and water), sanitization of public places using sodium hypochlorite spray, UVC and FAR infrared radiation. The treatment prescription may include Antithrombic medicine Aspirin, lifesaving drug-Dexamethasone, Vasodialator-Nitroglycerine and for making the lipid sheeth of the virus ripping apart by the use of induction *inhalation* of diethylether or savoflurane or a mixture of diethyl ether and sevoflurane and thus inactivating the virus in the lungs and bronchial tract.

## INTRODUCTION

Corona virus disease 2019 (COVID-19) an infectious disease, caused by Severe Acute Respiratory Syndrome- Corona virus-2 (SARS-CoV-2), was detected first in December 2019 in Wuhan city (China) and since them it spread globally (WHO, 2019; Chakarborty, 2020). Several corona viruses are known to cause infection in respiratory system including common cold and several disease like Middle East Respiratory Syndrome (MERS) and severe Acute Respiratory Syndrome (SARS) in human beings. The recently discovered corona virus is spherical, (80 to 200 nanometres in diameter) and RNA molecule in the nucleotide is formed of 16 protein with about 29,900 Chemical letters responsible for replication is contained in an envelope of lipid or oily substance, was named as n-Cov-19 by WHO, is responsible for causing the disease COVID-19, which has been declared a Public Health Emergency of International concern on January 30,2020 and since then it has interrupted the normal lives of the people, created mental instability and panic. It has also inflicted heavy toll of life and loss to the economy of almost all the countries around the globe. A healthy person may get infection of COVID-19 virus through mouth, nose or eyes by human to human contact primarily through droplets of saliva while talking or breathing and from the discharge of nose while

coughing and sneezing by an infected person or when he touches a contaminated surface laced with COVID-19 virus as the droplets usually fall to the ground or onto the surface. The amount of virus declines on the surface over a time depending upon temperature and relative humidity and become insufficient to cause infection. The virus on the surface may remain active for hours and days (Jiang, 2020; Chan, 2011). The contaminated surfaces act as a vector in the transmission of infection at homes, public places and hospitals etc. SARS COV-2 replicate only in living human cells However, the patients develop pneumonia (Ren, 2020; Zhu, 2019 and Yang 2020) after incubation period and the air sacs or alveoli of the lungs get inflamed and many times get filled with fluids or pus inhibiting the movement of oxygen from the lungs to the blood vessels causing breathing problem and lowers the Supply of Oxygen in the blood vessels and many times resulting into pulmonary failure leading to death. The studies from the Netherlands and France revealed that miniature/ micro blood clots are formed in the smallest blood vessels which restrict oxygenated blood in 20 to 30% of critically ill Covid-19 patients. SARS COV-2 viruses attack the endothelial Cells and enter lung cells using ACE 2 receptor. Klok et al explained that in some patients the immune cells release a flash of Chemical Signals causing inflammation, complementing coagulation and clotting. As mandated by the German federal state of Hamburg complete autopsy (Dominic, 2020) including postmortem computed tomography, histopathologic and virologic analysis were performed on the bodies of first twelve

\*Corresponding author: Ayesha Mariya,  
Th. H.N. Singh P.G. College, Prayagraj

covid-19 positive dead patients, confirmed by polymerase chain reaction at the academic medical center revealed deep Venous thrombosis in 7 of the 12 patients (58%) which was not suspected before death and simultaneously histomorphologically diffuse alveolar damage was noticed in 8 patients.

**Remedial Measures:** The remedial measure from the infection with the virus involves

1. The practice of personal hygiene, frequent hand washing with soap and water and by adopting respiratory etiquette and maintaining physical distancing (Mathur, 2011). The lipid envelope gets destroyed during hand washing or cleaning the surfaces with soap and water as the hydrophobic (water hating) portion of the soap molecule holds the lipid part tightly and the hydrophilic (water loving) end is pulled forcefully by water ripping the body of the virus apart (Patairiya, 2020).
2. The public places may be sanitized by Chemical spray (0.5-1.0% sodium hypochlorite solution), exposure to UVC radiations and Far Infra-red radiation ((Shin, 2003; Linn, 2002; Gerba, 2002; Pavitra, 2020). So far the accepted therapeutic options have not yet been found. However the several antivirals with uncertain efficacy are being tried which depend upon the anecdotal knowledge with HN<sup>1</sup>, SARS and MERS infection therapies (Shen, 2019; Dong, 2019; GUO, 2020; Wang, 2020; Cao, 2020; Jixg, 2004; Oner, 2019)

**Suggested Treatment:** In the light of above observations the treatment for covid-19 patients may need an antithrombic medicine like Aspirin - 2-Acetoxybenzoic acid (Michael, 1993; Marieb, 1989; Enma, 2012), (a non-steroidal drug used as blood thinner, remedy for inflammation, mild to moderate muscle ache, toothache, headache and swelling in arthritis used as oral anticoagulant and antithrombotic drug finds significant role in the management of thrombic and cardiovascular disorders), a lifesaving drug dexamethasone (Dauda, 2017; Adedapo, 2004; Beek, 2007; Chaudhury, 2004; Parrot, 1997), (widely used orally to treat anti-immune disorders, unresponsive musculoskeletal disorders, arthritis, thyroiditis, colitis, meningitis, immune mediated haemolytic anaemia or thrombocytopenia and some neoplastic conditions, and injection is used to treat severe allergic reactions, gastrointestinal disease, certain types of arthritis and in the management of certain types of edema), a vasodilator like nitroglycerine (Williaur, 2015), (an oldest prescribed anti-anginal agent, induces vasodilation in blood vessels, increases the diameter of epicardial coronary arteries vis-à-vis collateral blood flow and impairs platelets aggregations and exceeds hepatic blood flow along with diethyl ether (Hill, 1923; Bowdle, 2007; Hudsan, 2013), (a sweet smelling, mildly pungent potent anaesthetic analgesic and muscle relaxant (Sethuraman, 2016), with notably high aqueous solubility, is being used for inhalation induction for a long time and is still being significantly used in some developing countries because of it having high therapeutic index with minimal cardiac and respiratory depression) or Sevoflurane- 1,1,1,3,3,3-hexafluoro-2-(fluoro-methoxy) propane (Sethuraman, 2016; Grover, 2007), (a colourless, volatile and non-flammable liquid, synthesised in 1970's made available for clinical practice in 1990's, showing no major side effects on different

human organs has made it acceptable as safe and reliable anaesthetic agent throughout the world for clinical use or a mixture of diethylether and sevoflurane through induction inhalation. Diethyl Ether or Sevoflurane or a mixture of Diethyl ether and sevoflurane dissolve lipids readily and when ingested into lungs through induction inhalation they may dissolve the lipid sheath present around the nucleotide/body of n-coronavirus CoV-19 and may inactivate them in the bronchial tract and lungs, making the covid-19 patients healthy.

**The present work is subjected to clinical trials by the global medical fraternity**

**Inspiration:** The authors have been inspired from the concerted efforts of our prime minister Honourable Narendra Modi Ji to combat COVID-19 in India.

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