

**TOBACCO USE AND PANDEMIC COVID-19 IN INDIA****Yadav P<sup>1</sup>, Yadav P<sup>2</sup>, Kankane N<sup>3</sup>****<sup>1</sup>Assistant Professor, Department of Periodontics and Community Dentistry, Dr. R. Ahmed Dental College and Hospital, Kolkata, West Bengal, India****<sup>2</sup>Assistant Professor, Department of Periodontics and Community Dentistry, Dr.Z.A.Dental College AMU Aligarh India****<sup>3</sup> PhD Scholar, Department of Public Health Dentistry, King George's Medical University, Lucknow.****Received: 01-04-2021 / Revised: 05-03-2021 / Accepted: 20-03-2021****Corresponding author: Dr. Pramod Kumar Yadav****Conflict of interest: Nil****Abstract**

The world has witnessed the spread of a COVID-19, by the end of 2019, which affects the respiratory system of the body in the form of the novel coronavirus. The pandemic has affected people across all socioeconomic demographics and cultures in high, middle and low- income countries. Tobacco is also a major risk factor for diseases like cardiovascular disease, cancer, respiratory disease and diabetes which put people with these conditions at higher risk for developing severe illness when affected by COVID-19.

**Key words-** covid-19, pandemic, tobacco

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**Introduction**

The pandemic of COVID-19 is still under rapid progression; identification of prognostic factors remains a global challenge. COVID-19, also known as coronavirus disease or novel corona virus, is caused by a type of virus that causes respiratory illness. The virus might pass through the mucous membranes, especially nasal and larynx mucosa then enters the lungs through the respiratory tract. Which may lead to inflammation and the build-up of mucus and fluids in the airway of the lungs may cause pneumonia; the causative agent is SARSCoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2)<sup>1</sup>.

The epidemic of tobacco is a serious public health threats around world. Approximately millions of people are killing themselves by use of tobacco and around 7 million of those deaths are due to direct use of tobacco and other approximately 1.2 million are the result of non-smokers being exposed to second-hand smoke<sup>2</sup>.

All forms of tobacco are harmful, and there is no safe level of tobacco use. Smoking form is the most common type of tobacco use worldwide. Other tobacco products include various smoking tobacco products such as: cigars, cigarillos, roll-your-own tobacco, pipe

tobacco, bidis and kreteks. Smokeless form tobacco use is highly addictive and damaging to health. As smokeless tobacco contains many cancer-causing agents and its use increases the risk of cancers of the head, neck, throat, oesophagus and oral cavity (including cancer of the mouth, tongue, lip and gums) as well as various dental diseases<sup>3,4</sup>.

### **The ill effects of tobacco**

Smokers have higher risk of cardiac disease, stroke and lung diseases, and lung cancer as compare to non-smokers. Smoking of tobacco increases risk of heart disease and stroke for 2-4 times and risk of lung cancer increases 25times than non-smoker.

Smoking lead to damage in airway and alveoli which affect the lung and cause disease include emphysema, COPD, and bronchitis. Smoking paralyse cilia which is present in air way passage and responsible for cleaning of toxic substances and dust particles which accumulate in lungs and results congestion and this leads to bronchitis which is also known as smoker's cough. When people exposed to smoke the air passage becomes narrow and elasticity of walls of air ways slowly broken down. And this leads to reduces availability of oxygen to lungs tissue transfer from air to blood. This condition of lungs is known as emphysema. Emphysema different degrees present in mostly smokers, condition depends upon count of cigarette smoked and number of years of smoking. As age increases normally functions of lung decreases but due to smoking your lung age faster. The lungs natural defence against infection decreases due to smoking. Due to these all causes the lung function of smokers and non-smokers varies and lung function of smokers is less than non-smokers<sup>5-8</sup>.

### **Synergistic effect of covid19 and tobacco**

The pandemic COVID-19 is still under rapid progression, there are not much data on

clinical characteristics of the patients and their prognostic factors<sup>2</sup>. Tobacco use possibly associated with adverse effect in disease prognosis, as many research has noticed the reverse impact of tobacco use on lung health and its association with an abundance of respiratory diseases<sup>3</sup>.

Tobacco use and smoking tobacco have been shown to cause immunosuppression affecting the adaptive immune cells. After affected, these cells disrupt pathways that make us susceptible to numerous diseases, including allergies, respiratory cardiovascular and autoimmune diseases and cancers etc. Many studies on COVID-19 to date have shown that the worst affected cohort had at least one of these comorbid conditions. And many scientists have raised concerns about tobacco use and smoking; it may contribute to increased risk from the virus<sup>9-16</sup>.

As we know, Smoking is already known factor to be a risk for many other respiratory infections, such as colds, pneumonia, influenza, and tuberculosis<sup>17</sup>. The effects of smoking tobacco on the respiratory system of body, makes it more likely to smokers contract these diseases, that can be more severe<sup>18, 19</sup>. Smoking is also associated with increased risk of occurrence of acute respiratory distress syndrome, a key for severe cases of COVID-19<sup>15</sup>, among those who are with severe respiratory infections<sup>20, 21</sup>.

The other product that could be attributed to the spread of viral and bacterial diseases, with making people more susceptible to COVID-19, is chewing tobacco or smokeless tobacco. The WHO has advised that COVID-19 could spread through small droplets from the mouth or nose. These droplets dispersed when an infected person exhales or coughs. These droplets stick on objects and can survive for few hours or may be up to several days. Other people can be infected by touching these

objects or surfaces followed by touching their eyes, nose or mouth.

Approximately 90% of smokeless tobacco chewers live in Asia, India remains the world's biggest market of smokeless/chewing tobacco products which is taxed at a low rate and carrying a substantially high health risk. Smokeless tobacco, areca nut, pan, gutka, khainni, zarda etc increases the production of saliva followed by a very strong urge to spit. Most of chewers hold the quid in their mouth for a period of time and then spit out the tobacco juice along with their saliva. With lax laws and enforcement coupled with poor infrastructure, "spitting" is most often done in open public places, rendering the rest of the community at risk of a range of communicable diseases. Spitting can cause the spread of COVID-19 as the saliva of an infected person can carry the virus for more than 24 hours<sup>22-32</sup>.

### Conclusion

Tobacco smoking is a known risk factor for many respiratory infections and increases the severity of respiratory diseases. Public health experts found that smokers are more likely to develop severe disease with COVID-19, compared to non-smokers.

COVID-19 is an infectious disease that primarily attacks the lungs. Smoking impairs lung function making it harder for the body to fight off corona viruses and other diseases. Tobacco is also a major risk factor for non communicable diseases like cardiovascular disease, cancer, respiratory disease and diabetes which put people with these conditions at higher risk for developing severe illness when affected by COVID-19.

It is important that the control of tobacco use is taken especially seriously at this time and within a comprehensive approach to control all tobacco use, in light of the Framework Convention on Tobacco Control obligations (FCTC) and MPOWER (policy package

intended to assist in the country-level implementation of effective interventions to reduce the demand for tobacco ) recommendations.

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