COVID-19 Pandemic and Tobacco Use in India

Tobacco is the foremost preventable cause of death and disease in the world today, killing half of the people who use it [1]. As per Global Adult Tobacco Survey-India (GATS2) India is home to over 27 crore tobacco users and globally it is the second largest producer and consumer of tobacco products. Available estimates in India show that smoking-attributable annual deaths were about 930,000, while the smokeless tobacco (SLT) attributable annual deaths were about 350,000, together accounting for about 1,280,000 deaths per year or approximately 3500 deaths every day. [2, 3] As per the WHO Global Report (2012) on "Mortality attributable to tobacco' 7% of all deaths (for ages 30 and over) in India are attributable to tobacco [4]. In addition to the death and diseases it causes, tobacco also impacts the economic development of the country, and as per studies conducted by this Ministry, the total economic costs attributable to tobacco use from all diseases and deaths in the year 2011 was INR 104,500 crores, which is huge burden for a developing country like Indian to bear. [5]

Tobacco use is a major risk factor for the four main Non-communicable Diseases (NCDs) — cardiovascular disease, cancer, chronic lung disease and diabetes, which puts people with these conditions at higher risk for developing severe illness when affected by COVID-19. NCDs are estimated to account for 63% of all deaths in India and these are expected to rise further. [6]

Tobacco use is also a risk factor for infectious diseases- tuberculosis and lower respiratory infections - health burdens that afflict much of humanity. [7] Tobacco smoke contains toxic chemicals which cause damages to the linings of the airways and the lungs. It weakens immunity of the patient to fight against the TB causing mycobacterium. More than 20% of the global TB incidence may be attributed to smoking. [8] The percentage of death is higher (38%) among TB patients associated with Tobacco use. Both smoking and being exposed to second-hand smoke (other people's smoke) are significantly associated with TB infection, disease and mortality. [9] As per studies conducted the prevalence of TB is three times higher among ever-smokers as compared to that of never smokers and Mortality from TB is three to four times higher among ever-smokers as compared to never smokers. [10]

Tobacco and nicotine use, NCDs & COVID-19

The use of tobacco is a risk factor for many respiratory infections and increases the severity of respiratory diseases. Tobacco smoke including second-hand smoke contains over 7000 chemicals out of which more than 69 are cancer causing. [11] The chemicals in tobacco smoke suppress the activity of different types of immune cells that are involved in general and targeted immune responses.

Smoking impairs lung function, thereby reducing the immunity and making it harder for the body to fight off various diseases. Smoking, e-cigarettes, smokeless tobacco, pan masala and the like products use can increase risk and severity of pulmonary infections because of damage to upper airways and a decrease in pulmonary immune function. [12, 13, 14]

Smokers are likely to be more vulnerable to COVID-19 as the act of smoking means that fingers (and possibly contaminated cigarettes) are in contact with lips which increases the possibility of transmission of virus from hand to mouth. Experts have confirmed that smokers are more likely to develop severe symptoms or die from COVID-19, as it primarily attacks the lungs. Further smoking products such as water pipes or hookah often involve the sharing of mouth-pieces and hoses, which could facilitate the transmission of COVID-19 in communal and social settings.

Evidence from countries reporting COVID-19 related fatalities has highlighted that the people with pre-existing non-communicable diseases (NCDs) are more susceptible to becoming severely ill with COVID-19. Tobacco, being one of the causes behind these NCDs, indirectly puts the tobacco users or/and smokers at risk of being affected by COVID-19. Moreover, tobacco use poses a significant risk by accelerating the transmission of COVID-19 because the virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Chewing tobacco products (Khaini, Gutkha, Paan, Zarda) increases the urge to spit. Spitting in public places increases health risks especially those of spreading the infectious and contagious diseases like, COVID19, tuberculosis, swine flu, encephalitis, etc. [15]

There have been recent reports in the media quoting studies conducted in France suggesting the possibility of link between tobacco or nicotine in the prevention or treatment of COVID-19. The findings of these studies are inconsistent with the broader existing evidence that tobacco use impacts the lungs and other organs, lowers the immunity and makes people vulnerable to COVID-19. The French studies used limited data sets and the findings are inconclusive. Researchers of these studies do acknowledge the limitation in the study that hospitals were probably not recording patients' smoking status properly as they were too busy treating patients.

The Ministry of Health & Family Welfare warns against the use of any tobacco products. This is in concurrence with the WHO statement on tobacco use and COVID-19 issued on 11 May 2020 (accessed at https:// www. who.int /news-room/detail/11-05-2020-who-statement-tobacco-use-and-covid-19).

National Tobacco Quitline and mCessation

To quit tobacco, the citizens are advised to call the toll free Quitline 1800-11-2356 or/and also avail the services of mCessation through behavioural change text messages by sending a missed call on the mCessation number 011-22901701 or registering at http://www.nhp.gov.in/quit-tobacco

Benefits of quitting

Within 12 hours of quitting, the carbon monoxide level in the bloodstream drops to normal. Within 2-12 weeks, circulation improves and lung function increases. After 1-9 months, coughing and shortness of breath decrease. [16]

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[16] https://www.who.int/news-room/detail/11-05-2020-who-statement-tobacco-use-and-covid-19#:~:text=Tobacco%20s moking%20is%20a%20known,%2C%20compared%20to%20non%2Dsmokers