



AIR POLLUTION, WINTER, INFLUENZA INFECTION-COCKTAIL COULD EXACERBATE THE SEVERITY AND SPREAD OF CORONAVIRUS IN COMING MONTHS - CHILDREN COULD BECOME A SUPER SPREADER

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ABSTRACT

Background: With the resurgence of COVID-19 there may be a double epidemic of flu and COVID-19 during the winter which could be exaggerated by increase pollution.

Objective And Design: To assess the effects of Air pollution , Winter , Influenza infection on severity and spread of corona virus in winter season.

KEYWORDS : Air pollution , Winter , Influenza infection , corona virus, Covid-19 ,Children

Virus illnesses are particularly the respiratory ones like RSV or Influenza thrive in the winter season with the most noticeable example of flu deaths in winter season¹. Even though to date there is no evidence of climate change on coronavirus spread recent surge in Delhi and other parts of the country strongly indicate that India might see the second peak of Coronavirus cases in the coming months.

There are few cases around the globe with coronavirus and influenza coinfection. In these coinfections, there was a significant risk factor for increase shedding of viruses as well as prolonged hospital stay a retrospective study from Wuhan, China².

With the resurgence of COVID-19, there may be a double epidemic of flu and COVID-19 during the winter which could be exaggerated by increased pollution as there is enough evidence to suggest not just respiratory droplets, airborne dust & fiber particles can also spread corona virus³ -Coronavirus has been detected on particles of air pollution enable it to be carried over longer distances and increase the number of people infected-air pollution particles could help coronavirus travel further in the air⁴.

We know that air pollution can cause health problems, like Bronchial Asthma, Lung carcinoma, heart attacks, strokes, diabetes, and high blood pressure, chronic lung diseases, and neonatal diseases that have been identified as the pre-existing medical conditions that raise the chances of death from COVID-19 infection. According to the State of Global Air (SOGA) Report, 2020, long-term exposure to outdoor and household air pollution —contributed to 16, 67,000 deaths in India in 2019⁵. Emerging research has now suggested that breathing more polluted air over many years may itself worsen the effects of COVID-19 (8% increase in mortality from COVID-19 infection for every 1 microgram/cubic meter increase in air pollution)⁶. The Doctors For Clean Air (DFCA) has warned that compromised lung function due to air pollution could lead to a serious complication in patients affected by the Covid-19⁷.

Air pollution may also exacerbate symptoms of “long Covid”, which is a term used to describe symptoms of Covid-19 persisting weeks and months after recovery- with symptoms of cough, fatigue, diarrhea, joint pain, muscle aches, and lungs, heart, and kidney damage. Fatigue is the most common symptom⁸.

Now what we could do avoid this "Triple Pandemic"?

Here are some point I would like to suggest

1- Combination testing for both COVID-19 and influenza- could be used to distinguish the two infections in patients presenting with similar symptoms.

2- Influenza vaccination to be included in the Universal Immunization program.

3- Continuing social distancing / Mask wearing /Hand hygiene should be sufficient to suppress any twin influenza/corona epidemic.

4- Formulate long-term plans to reduce air pollution in the country - stricter enforcements of thermal power plant emission norms, regulation of emissions from diesel and petrol vehicles, and strict enforcement of construction and solid waste norms. There is a respiratory virus that kills people out there – this is not the right time to

give permits to industry to pollute our air

5- Everyone who has recovered from the coronavirus disease (Covid-19) and lives in a city or region with high air pollution must get a flu shot.

CONCLUSION:

Air pollution , Winter , Influenza infection-Cocktail could exacerbate the severity and spread of corona virus in coming months. Preventive measures include -Vaccination against influenza ,Pollution control , continuing social distancing / Mask wearing /hand hygiene.

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