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Editorial

New Delhi air pollution: An alarming situation

Sankalp Yadav[1]*, Amruta Nadar[2], Madhan Jeyaraman[3,4], Gautam Rawal[5]

[1]Dept. of Medicine, Shri Madan Lal Khurana Chest Clinic, MCD, New Delhi, India
[2]Ayushman Arogya Mandir Subcenter, Ranhola, New Delhi, India
[3]Dept. of Orthopaedics, ACS Medical College and Hospital, Dr MGR Educational and Research Institute, Chennai, Tamil Nadu, India
[4]Dept. of Regenerative Medicine, Agathisha Institute of Stemcell and Regenerative Medicine (AISRM), Chennai, Tamil Nadu, India
[5]Dept. of Respiratory Medical Critical Care, Max Super Speciality Hospital, Saket, New Delhi, India

Abstract

Delhi continues to battle the issue of air pollution. There is a significant decline in the overall air quality, and it is taking a heavy toll on the health of the Delhi residents. The impact is so grave that the city has to undertake several regulations to fight the rising levels of pollutants in the air. This editorial sheds light on this critical problem of air pollution that has become an annual event.

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Air pollution is defined as all destructive effects of any sources which contribute to the pollution of the atmosphere and/or deterioration of the ecosystem. Both natural occurrences and human activity contribute to air pollution. It is composed of several types of contaminants, such as substances in the solid, liquid, and gaseous states.[1]

Indeed, in many nations, notably India, where it is acknowledged as a component of the right to life under Article 21 of the Constitution, the right to clean air is regarded as a basic right. Through judicial interpretation, courts have upheld this right, extending the right to life to encompass all elements required for a dignified living, including a clean and healthy environment.[2] The right to a healthy environment, which includes clean air, has also been acknowledged by the United Nations as a human right.[3] However, despite such laws, the level of pollutants in the air is significantly high in various cities of India.[4]

New Delhi is grappling with air pollution, which is among the worst in the world. The city typically has dangerous levels of air pollutants, particularly in the winter when industrial pollutants, construction dust, and automotive exhaust combine with the burning of agricultural stubble in neighbouring states.[5]

The Air Quality Index (AQI) is a composite metric to evaluate air pollution by combining concentrations of important pollutants PM2.5 (particulate matter ≤ 2.5 μm), PM10 (≤ 10 μm), sulfur dioxide, nitrogen dioxide, carbon monoxide, and ground-level ozone into a single scale, as standardised in India by the Central Pollution Control Board's National Air Quality Index report (2014) under the National Air Quality Monitoring Programme. In order to calculate the AQI, these pollutants must be measured, their concentrations must be converted into sub-indices using particular breakpoints, and the highest sub-index—which highlights the dominating pollutant—must be used as the overall AQI [5]. Further, AQI is categorised as good (0–50), satisfactory (51–100), moderate (101–150), poor (201–300), very poor (301–400), and severe (401–500).[5,6]

In the past few weeks the AQI of New Delhi has been falling into the categories of poor to severe. This is adversely

*Corresponding author: Sankalp Yadav
Email: drsankalpyadav@gmail.com

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affecting the health of the citizens in many ways, from acute discomfort to long-term illnesses and early mortality. Cardiovascular conditions like heart attacks and strokes, neurological disorders including cognitive decline and neurodegenerative diseases, and respiratory conditions like asthma and COPD can all be brought on by it. Additionally, air pollution raises the chance of cancer, birth abnormalities, and other systemic and reproductive health issues. Some disorders, including asthma, lung cancer, ventricular hypertrophy, Alzheimer's and Parkinson's diseases, psychiatric issues, autism, retinopathy, foetal development, and low birth weight, have air pollution as the major environmental risk factor in the incidence and progression of the disease.[7]

In short, air pollution continues to haunt the national capital of India, and a concrete solution is the need of the hour. In the past the city has undertaken multiple efforts at various levels to regulate and control the air pollution. Some of these include encouraging the use of public transport, banning biomass burning, regulating diesel engines and generators, using the odd-even formula for the use of vehicles on the roads, shutting down polluting power plants, and sprinkling water and vacuum cleaning roads.[8] There is an urgent need to devise newer methods for controlling air pollution.[8] Further, it is not only the policymakers or the government agencies who have to act, but it should be a unified effort from all the stakeholders, like citizens of New Delhi, civic and municipal agencies, neighbouring states, NGOs, etc. To conclude, air pollution is a grave problem and has to be addressed immediately.

Conflicts of Interest

None declared.

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