Air Pollution and It’s Effects on Human Health: A Review Literature

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ABSTRACT

Air pollution is currently a major concern for human health and the environment of the world. Rapid growth of metropolitan cities has led to an increase of vehicles and industries which emits toxic substances. India is experiencing a major growing risk factor for Human Health. Due to high concentrations of particulate and gaseous material, toxic metals and aldehydes, with a significant increase in acute cardiopulmonary mortality, particularly in certain high-risk population subgroups, and with an acute increase in hospitalizations for cardiovascular and pulmonary diseases. In this the authors have explained the impact of air pollution and their consequences in India.

Keywords: Air Pollution, Human Health, Toxic Metals

Introduction

Air pollution is a contamination of the environment by any toxic agent that affects the natural characteristics of climate and is harmful to the health of human and living beings [1]. The expansion of urban areas led to increase of Industries, increased employment and more career opportunities in urban areas led people to move from rural areas to urban areas which demands the usage of motor vehicles is the major cause of air pollution. Air pollution is recognized as the most important environmental risk factor for the onset and progression of some diseases such as asthma, lung cancer, ventricular hypertrophy, Alzheimer's and Parkinson's disease, mental complications, autism, retinopathy, fetal growth and low birth weight (Ghorani-Azam et al., 2016).

Discussion

From the last few years there is an increased level of pollution above the prescribed standards for most of the Indian Metropolitan cities. Intensified heat waves increased the temperature levels in Urban Cities causing several health issues in urban areas. Every year there are so many deaths happening due to heat waves in Indian Metropolitan cities (Kaur and Pandey, 2021). The Covid-19
pandemic has given the great opportunity to understand the impact of Air Pollution on human health. Majority of the countries have restricted industrial activities and thereby decreasing the usage of motor vehicles. Strict lockdown during Covid-19 pandemic has been observed to cause a significant drop in the pollutants concentration in the air. In a study by Ganguly, et al. they compared pollutant concentrations during lockdown period with the same period of previous year (2019). They observed from the study that an overall decrease of pollutant concentrations was in the ranges of 30–60% and 52–80% of PM10 and NO2, respectively (Ganguly et al., 2021).

Exposure to air pollution associated with oxidative stress and inflammation which led to chronic diseases and cancers [4]. Health issues are rising due to air pollution which puts human life in danger like Respiratory Issues, Chronic obstructive pulmonary disease, lung diseases, Several Cancers, Cardiovascular, Stroke etc., (Kuldeep, 2021). Studies have confirmed serious decline of air quality in Delhi, and other major cities across India [2]. Delhi had 1.7 times higher prevalence of respiratory symptoms compared with rural controls. Studies proved that there is a significant increase of cases with Cardiovascular and Respiratory diseases compared to other cities (Rizwan et al., 2013). Children who live in Delhi, are the most affected by its toxic effects. Noxious gases are produced by motor vehicle emissions and by-products of industrial processes affect the respiratory and cardiovascular systems of the children [2]. The Indian Government took initiative to decrease the air pollution and implemented policies such as National Clean Air Programme (NCAP) [3].

Conclusion

By following alternate pollution control technologies and strategies we can overcome the issue. Adjustments in Industrial activities such as sustainable manufacturing procedures and strict legal regulations may lead to decrease in air pollution. Reducing the particulate matter in the air may result in improved health.

References


Kaur R and Pandey P. Air Pollution, Climate Change, and Human Health in Indian Cities: A Brief Review. Front Sustain Cities 2021; 3: 705131


**Web-links:**

1. https://www.who.int/health-topics/air-pollution#tab=tab_1
3. https://www.who.int/india/health-topics/air-pollution