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Air pollution and severity of Covid 19 cases in India- An observational study**Vijayashree M, Shivprasad S***Consultant, NCD H.O.P.E Project, Narayana Health CSR, Bangalore*

Introduction: COVID 19 pandemic has brought mankind to stand still state with negative implications on one's health, causing fear, anxiety and emotional stress. Diseases related to pollution are many and the major target organ is often lungs. Lungs get weakened by the challenging air we breath at the polluted places. As seen in the first wave of COVID 19 in INDIA, the badly affected areas were the top polluted cities in the country. This suggests air pollution has strong link with corona virus disease.

Objective: The present study was undertaken to correlate air pollution (particulate matter) and the severity of COVID 19 cases in India.

Methodology: An observational study was conducted based on the data available on the Indian government websites. This study was a comparative study to access the COVID spread as well as severity among people living in highly polluted cities as compared to less pollutes one. The air pollution was recorded based on available data. While the number of cases due to COVID 19 was collected from Government of India and state government database.

Results: Our study revealed that the people living in places with particle matter of 2.5micrometer pollution along with increased nitrogen dioxide level had significantly higher risk of contracting the infection. A significant correlation was seen with increased particulate matter and daily COVID death. The odds of having COVID 19 were twice higher among people living in polluted places as compared to those living in less polluted areas. Daily rise in new cases was significantly associated with AQI and PM(p<0.05)

Conclusion: This study strongly suggests the possible link of severity of air pollution and covid 19 cases. Government policies focusing on air quality should be made and implemented promptly to help control this pandemic at large along with health advises to public.