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Indian Cancer Awareness Journal

Article in Press

Letter to the Editor

Does Using Vehicles Expose Us to Cancer?

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Received: 07 June 2024
Accepted: 25 June 2024
EPub Ahead of Print: 15 July 2024
Published:

DOI
10.25259/ICAJ_13_2024

Quick Response Code:

Dear Editor,

Cancer has a major healthcare effect on human lives worldwide, where it contributes to the leading number of deaths worldwide.[1] In the year 2023, approximately 9.6–10 million deaths occurred worldwide, and the number is getting higher and higher each year despite advanced cancer treatment.[2] In the USA, the projected cancer cases were 1,958,310 and 609,820 deaths by the end of the past year.[3,4] Cancer has become a global burden, mainly for developing countries. Recently, India has become the most populous country in the world, suppressing China, and it is predicted that India's population will continue to grow for several decades whereas China's population will decline.[5] If these projections are true, then India will face a healthcare crisis in the days to come. Recently, a report published by the Apollo Hospital has brought some serious data about the healthcare landscape of the country, and it sounds alarming. It was found that there was a surge in non-communicable diseases, and among them, cancer took the first spot. Therefore, it is predicted that there will be approximately 15.5 lakh cancer cases by the end of 2025, compared to 13.9 lakh in 2020;[6] therefore, the burden will continue to rise. In general, cancer is caused by genetic changes and when deoxyribonucleic acid (DNA) is replicated during cell division. However, there are other environmental risk factors such as increasing age, smoking, alcoholism, immunosuppressants, family history, using tobacco, overexposure to sunlight, radiation, diet and genetics[7] and due to this, there will be around 35 million new cases, which will be added by 2050.[8] Recent biological mechanisms suggest that mainly all types of cancer occur due to environmental and genetic factors, which will be combined with external constituents, which will ultimately damage the DNA. Along with environmental causes, some people may have specific genes such as BRCA1, BRCA2 and p53, which will suppress immunity and slow down cell growth. Other than this, some of the occupational sources, such as roof and floor tiles, petroleum, missile fuel, radiation exposure, batteries, preservatives, refrigerators, glues, multiple sexual partners and ceramics, can play a major role in developing cancer among humans.[9] Recently, the researchers discovered a cancer-causing chemical in the car. The research has been done in 30 states across the USA throughout 2015–2022, where the quality of the cabin air has been studied in 101 hybrid, electric and gas models. It was found that around 99% of the cars have tested positive for the cancer-causing chemical TCIPP, which is also known as tris (1-chloro-isoropyl) phosphate. It is a flame-retardant additive that is used in polyurethane foam, which is then used to make car seats, which we use every day. The tests were mainly done in the summer and cold seasons to find out the traces of TCIPP. The finding suggests that the airborne concentration of TCIPP is between 2 and 5 times higher than normal, and a hot environment could lead to more and more chemical exposure from the car seat.[10] This could lead to a disastrous situation. Furthermore, two more flame retardant chemicals, such as tris (1,3 dichloro-2-propyl) phosphate and tris (2-carboxyethyl) phosphine, were also found to have

carcinogenic effects. Even if the cancer and flame-retardant chemicals are not directly related, this finding is significant. Moreover, if the findings are right, then we may expect a rise in cancer cases all around the globe. According to the data, India has over 34 crore registered vehicles that are in use.[11] Therefore, the chance is even greater that, in the future, we may expect a high cancer rate in this country. At present, India's health-care system is reshaping for modernisation. Therefore, the government must take the necessary steps to promote awareness among people regarding this potential danger, which may put people's lives at risk.

Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

Patient's consent was not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Cancer; 2022. Available from: https://www.who.int/news-room/fact-sheets/detail/cancer [Last accessed on 2024 Jun 01].
2. Chandani. Top 10 Cancer Statistics in India; 2023. Available from: https://drarvindkumar.com/blog/author/chandani [Last accessed on 2024 Jun 01].
3. Siegel RL, Miller KD, Wagle NS, Jemal A. Cancer Statistics, 2023. CA Cancer J Clin 2023;73:17-48.
4. Shil R, Dhanpal HN, Ramu K. Effectiveness of an Educational Intervention in Increasing Knowledge Regarding Lung Cancer among Engineering Students. Int J Nurs Health Res 2019;1:1-3.
5. UN DESA Policy Brief No.153: India Overtakes China as the World's Most Populus Country. United Nations; 2023. Available from: https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-153-india-overtakes-china-as-the-worlds-most-populous-country [Last accessed on 2024 Jun 01].
6. Batra E. Apollo Hospitals Health of the Nation 2024 Report Sounds Alarm on Rising Cancer Rates. CNBCTV18; 2024. Available from: https://www.cnbctv18.com/healthcare/apollo-hospitals-health-of-the-nation-2024-report-sounds-alarm-on-rising-cancer-rates-19393478.htm# [Last accessed on 2024 Jun 01].
7. Cancer-Causing Substances in the Environment. Cancer.gov; 2022. Available from: https://www.cancer.gov/about-cancer/causes-prevention/risk/substances [Last accessed on 2024 Jun 01].
8. Global Cancer Burden Growing, Amidst Mounting Need for Services; 2024. Available from: https://www.who.int/news/item/01-02-2024-global-cancer-burden-growing--amidst-mounting-need-for-services [Last accessed on 2024 Jun 01].
9. Parsa N. Environmental Factors Inducing Human Cancers. Iran J Public Health 2012;41:1-9.
10. Smith C. Car Seat Foam Could Emit Cancer-Causing Chemicals, Study Says. Motor1.com; 2024. Available from: https://www.motor1.com/news/719009/car-seat-foam-cancer-causing-chemicals-study [Last accessed on 2024 Jun 01].
11. Yadav P, Yadav P. In India, Out of 34 Crore Registered Vehicles, Only 0.8 Percent are EVs. News18; 2023. Available from: https://www.news18.com/auto/in-india-out-of-34-crore-registered-vehicles-only-0-8-percent-are-evs-8417707.html# [Last accessed on 2024 Jun 01].

How to cite this article: Shil R. Does using Vehicles Expose us to Cancer? Indian Cancer Awareness J. doi: 10.25259/ICAJ_13_2024