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Ezequiel García-Ballestas,
Luis Rafael Moscote-Salazar,
Andrei Joaquim,
Amit Agrawal

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Global warming, neurosurgery and neurocritical care

Ezequiel García-Ballestas¹, Luis Rafael Moscote-Salazar²,
Andrei Joaquim³, Amit Agrawal⁴

¹ Medical student. Center for Biomedical Research (CIB), Faculty of Medicine, University of Cartagena, COLOMBIA

² Neurosurgeon. Critical Care, Center for Biomedical Research (CIB). Director of Research, Line Cartagena Neurotrauma Research Group. Faculty of Medicine, University of Cartagena, COLOMBIA

³ Prof. of Neurosurgery. University of Campinas (Unicamp), Campinas-SP, BRAZIL

⁴ Department of Neurosurgery, All India Institute of Medical Sciences, Saket Nagar, Madhya Pradesh, INDIA

ABSTRACT

The changing temperatures are making an impact on health-related mortality outcomes with many studies on the role of temperature and mortality risks in cardiovascular and respiratory illnesses. Global warming a real phenomenon, progressing rapidly and producing changes in the ecosystem and have economic, social and public health implications.

The changing temperatures are making an impact on health-related mortality outcomes with many studies the role of temperature and mortality risks in cardiovascular and respiratory illnesses. ¹ Global warming a real phenomenon, progressing rapidly and producing changes in the ecosystem and have economic, social and public health implications. Climate change is causing warmer and more variable temperatures as well as a physical flux in natural populations, will affect the ecology and evolution of infectious disease epidemics. The greenhouse effect has increased the temperature by more than 0.5 ° C and it is estimated that there will be another increase of 0.5 ° C in the next coming decades. ^{2,3} Despite the alarming rise we have turned a blind eye to these problems and now we may face the consequences of this phenomenon in every field. Ali et al ⁴ analyzed 111 patients to assess the impact of the lunar cycle and season on the incidence of aneurysmal subarachnoid hemorrhage and noted incidence peak for aneurysm rupture was observed during the phase of new moon, which was statistically significant, however no seasonal variation in the

Keywords

global warming,
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Corresponding author:
Luis Rafael Moscote-Salazar

Center for Biomedical Research
(CIB). Faculty of Medicine - University
of Cartagena. Cartagena, Colombia

rafaelmoscote21@gmail.com

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incidence of overall total subarachnoid hemorrhage caused by various etiology was observed. Authors concluded lunar cycle affect the incidence of intracranial aneurysm rupture, with the new moon being associated with an increased risk of aneurysmal subarachnoid hemorrhage. ⁴ Chyatte et al. ⁵ analyzed 1487 patients with a primary diagnosis of aneurysmal subarachnoid hemorrhage. Men showed a single large peak in late fall, and late spring in women. Changing climatic conditions precede aneurysm rupture in men but not in women, which suggests that weather is causally related to aneurysm rupture in men and that factors that lead to aneurysm rupture in women may be different from those in men. These data do not explain why weather fronts or gradients are associated with aneurysm rupture in men. ⁵

Li et al ⁶ estimated temperature-related mortality projection for acute ischemic heart disease and ischemic and hemorrhagic stroke with concomitant climate warming. The median number of projected annual temperature-related deaths for hemorrhagic stroke had virtually no change compared with the 1980s, and for acute ischemic heart disease Authors projected temperature-related mortality associated with ischemic stroke can increase dramatically as an effect of climate warming. However, projected temperature-related mortality pertaining to acute ischemic heart disease and hemorrhagic stroke should remain relatively stable over time. ⁶

It is anticipated that the incidence of traumatic brain injury is likely to rise as level of industrialization will continue to increase. Increases number of natural disasters like cyclones and floods will lead to greater load of trauma. Many centers now have fully functional round-the-clock operation theaters and cooling them needs large amounts of power. Again, most of the Computed tomography machines and Magnetic resonance imaging machines need super-cooled magnets which against needs electricity.

Thus, global warming will lead to greater health care expenditures which will translate to increased health care costs and thus non-affordability will rear its ugly head again. Changes made before the problem becomes unreversible is the only solution. ⁷ The global warming and ecological changes may produce myriad of health hazard including cerebral stroke, aneurysmal subarachnoid hemorrhage. The real inconvenience shall be in the management of diseases that will arise due to this and will push us back in terms of our advancement and health care delivery. It is best to control global climate changes and warming with the help of international co-operation further health hazard.

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