Traffic noise: More than just mere annoyance?

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Madam, As industrialisation and technology become more global, quality of life is far better than years before. One such development is better transportation. With the advent of cars and buses, transport is easier than ever and is an integral part of almost everyone's daily life. However, with any fast-paced change, novel situations bring along problems. Along with convenience, increased traffic brings along its own issues, one of which is the increase in environmental noise.

According to the WHO, the noise levels one should be exposed to are around < 53 dB for traffic noise.[1] In Karachi, the noise levels often exceed this, going as high as 103 dB.[2] Aside from the more apparent problems such as sleep disturbance, a cohort study conducted by Shin et al. suggests that long term exposure to traffic noise increases the incidence of diabetes mellitus and hypertension [3]. According to the article, a 10-dBA increase in traffic noise was associated with as much as an 8% increased chance of diabetes mellitus.[3] Another longitudinal study and metanalysis by Hao et al. suggest that exposure to traffic noise could increase the risk of stroke and cardiovascular disease, especially in men.[4] Proposed models offer that noise results in annoyance, causing a stress reaction that releases hormones like catecholamines and corticosteroids, activating inflammatory and thrombotic pathways.[5] Chronically high noise levels could exacerbate vascular dysfunction and precipitate cardiometabolic diseases.[5]

Living in a country where diabetes and cardiovascular disease are the culprit for a good proportion of health issues, practitioners in Pakistan should be aware that this could be a contributing risk factor. Although most healthcare workers cannot restructure the city's roads and enforce traffic rules to reduce noise pollution, we can act on this knowledge by spreading awareness to our patients who are at risk and our colleagues so that they do not contribute to this. Healthcare workers should counsel patients at risk of developing diseases who live and work in noise-prone areas about simple preventative measures, such as earplugs, closing windows during peak traffic times, and home soundproofing if they have the means. Likewise, they should educate others about simple steps they can take, such as adhering to speed limits and refraining from excessive use of horns. By spreading awareness, we could protect our patients from developing cardiometabolic disease in the long run.

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