Anguishing Reports of Ambient Air Pollution in Tehran Capital of Iran

Agin Kh^{1*}

¹Logman Hakeem General Teaching Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran

ARTICLE INFO

Article Type: Editorial

Article History: Received: 2 April 2014 Revised: 10 April 2014 Accepted: 25 April 2014

Benzene is the aromatic hydrocarbon, organic and petrochemicals. It has high octane number and used as ethybenzene. It composed a few percent of gasoline mass less than 1%. Benzene was used before 1950 but after that year replaced with tetraethyl lead. The recent material was associated with environmental pollution so came back again benzene in the petrol cycle production.

Human is exposed withbenzeneby several ruts; gasoline fumes, motor vehicle exhaust, and smoking. Inhalation is the main route of toxicity in urban area.

Standard threshold of benzene concentration is 1.56 part per billion (PPB) in accepted air quality. The current study displayed that benzene concentrationin Tehran (capital of Iran) was between 2-20 times higher than the standard (1). This is the first official report published aboutambient air pollution in 2013. However, Iran Ministry of Health announced that Asbestos and benzene levels had 50-100, respectively. It means that there were 10 times more than standard levels in the Tehran urban area (2).

These materials, specially benzeneBenzene has potential ability as cancer risk factor to inducing acute and chronic bloods leukemia (3). In addition, there arerelations between benzene exposure and lung cancer (4). Benzene can induce aryl hydrocarbon receptor which leads to tumorigenesis (5).

The vision of information dictates assumption of planning in two aspects. The arrangement may be suggested that the sources of pollutants will be reduced in the environment thought activation of dependable organizations and investigation of at-risk population based on the prioritizes.

References

- 1. Atabi F, Mirzahosseini SA. GIS-based assessment of cancer risk due to benzene in Tehran ambient air. Int J Occup Med Environ Health. 2013;26(5):770-9.
- 2. 5,000 people annually die in Tehran because of heavy air pollution. Available at the: http://en.trend.az/regions/iran/2081607.htm 1, in 2014
- 3. Glass DC, Schnatter AR, Tang G, Irons RD, Rushton L. Risk of myeloproliferative disease and chronic myeloid leukemia following exposure to low-levelBenzene in a nested case-control study of petroleum

Corresponding author: Agin Kh, MD. Associated Professor of the Respiratory Medicine. Logman Hakeem General Teaching Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran

E-mail: khosrow.agin@yahoo.com & Agin@sbmu.ac.ir

workers. Occup Environ Med. 2014;71(4):266-74.

- 4. Hart JE. Invited commentary: epidemiologic studies of the impact of air pollution on lung cancer. Am J Epidemiol. 2014;179(4):452-4.
- 5.Tsay JJ, Tchou-Wong KM, Greenberg AK, Pass H, Rom WN. Aryl hydrocarbon receptor and lung cancer. Anticancer Res. 2013;33(4):1247-56.