

Dermal exposure assessment techniques to polycyclic aromatic hydrocarbons

Dehghan Tezerjani H¹; Zare Sakhvidi M J^{1*}; Loukzadeh Z²; Keyghobady N³; Zare M⁴; Dorbidi R⁵

1. Department of Occupational Health, School of Health, Shahid Sadoughi University of Medical Sciences, Yazd
2. Department of Occupational Medicine, School of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd
3. Department of Biostatistics and Epidemiology, School of Health, Shahid Sadoughi University of Medical Sciences, Yazd
4. Department of Occupational Health, School of Health, Hormozgan University of Medical Sciences
5. Department of Environment, School of Resources and Desert Studies, Yazd University

Received: 05.11.2013 Accepted: 06.01.2014

Abstract

Background: Studies have shown that dermal exposure to polycyclic aromatic compounds can lead to systemic health effects if the substance is absorbed by the skin. Epidemiologic reports of PAH-exposed workers have noted increased incidences cancer.

Methods: According to the low vapor pressure this material, the major route of occupational exposure in some jobs is through dermal exposure. The more common methods of assessing dermal exposure to these compounds have been investigated.

Results There are Different results regarding the effectiveness of various methods of assessing skin exposure to this class of compounds. However, tend to use quantitative methods and semi quantitative reverse rising in this field.

Conclusion: Assessment methods have advantages and disadvantage that researcher can be used one or more of the methods according to facilities. However, more research is needed in this field

Key words: Skin exposure, Polycyclic aromatic hydrocarbons, Occupational exposure, Occupational health

* Corresponding author: Department of occupational health, Faculty of health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran, Tel:+98 351- 36240696, E-mail: mjzs63@gmail.com