Association of Urinary Polycyclic Aromatic Hydrocarbon metabolites and Diabetes Mellitus among US adult population

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Abstract
To evaluate the association between urinary polycyclic aromatic hydrocarbons (PAHs) and diabetes mellitus. The National Health and Nutritional Examination Survey (NHANES) 2003-16, is a nationally representative "population-based cross-sectional survey". A stratified multistage probability sample is included in the NHANES survey. As a consequence, 13,792 participants of the NHANES 2003-16 were included in the final analyses. With odds ratio (OR) and 95% confidence intervals (CIs), along with adjustment for confounding variables, logistic regression analysis was performed to evaluate the association between urinary PAH and the prevalence of diabetes. The study sample consisted of 13,792 individuals aged ≥ 18 years, the average ages of the three ΣOH-PAH quartiles were 42.56 ± 19.67, 42.21 ± 19.51, and 43.39 ± 17.99 years, respectively. A positive association was found for the second, and third quartile of urinary PAH and increased prevalence of diabetes (OR = 1.56, 95% CI = 1.36-1.79; and OR = 1.79, 95% CI = 1.55-2.06) in all participants, respectively, with P values less than 0.05. Similarly, males and females had significantly positive association between second and third quartiles of urinary ΣOH-PAH with increased risk of diabetes (OR = 1.42, 95% CI = 1.18-1.71; OR = 1.76, 95% CI = 1.44-2.14) and (OR = 1.69, 95% CI = 1.38-2.08; OR = 1.79, 95% CI = 1.46-2.19).

Biography
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