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P109 Association between air quality index and the risk of rosacea: a nationwide population-based cohort study
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Air pollution is associated with several inflammatory skin disorders. However, the association between air quality and rosacea remains unclear. Our objective was to investigate the association between air quality index (AQI) and the incidence of rosacea. Overall, 21 709 479 participants without rosacea before 2008 were recruited from the Taiwan National Health Insurance Research Database. The long-term average AQI value for each participant was acquired from the Taiwan Air Quality Monitoring System Network and was calculated from 1 January 2008 until the diagnosis of rosacea,
withdrawal from National Health Insurance, or 31 December 2018. We observed a significant association between AQI and the incidence of rosacea, with each unit elevation in AQI increasing the risk of rosacea by 5%. Compared with the quartile 1 group, the quartile 2, 3 and 4 cohorts exhibited 1.82-fold, 4.48-fold and 7.22-fold increased risks of rosacea, respectively. Additionally, exposure to PM$_{2.5}$, SO$_2$ and CO increased the risk of rosacea, whereas exposure to PM$_{10}$ was associated with a lower risk. Limitations of this study include its retrospective design and involvement of participants mainly from Taiwan. Additionally, some potential confounding factors may not have been accessible in the database. This study supported a significant dose–response relationship between AQI and the incidence of rosacea.