Associations between air pollution, climate factors and outpatient visits for eczema in West China Hospital, Chengdu, Southwestern China: A time series analysis

Anqi Li
West China School of Medicine, China

Environmental irritants are important risk factors for skin diseases, but little is known about the influence of environmental factors on eczema incidence. In this time-series study, our objective was to examine the associations of environmental factors with outpatient visits for eczema. Daily outpatient visits between 2007 and 2011 (1826 days) were collected from Huashan Hospital in Shanghai, China. We used an over dispersed generalized additive model to investigate the short-term association between environmental factors and outpatient visits for eczema. Daily outpatient visits for eczema were significantly associated with air pollution and meteorological factors. For example, a 10 μg/m3 increase of 7-day (lag 06) average concentrations of PM10 (particulate matter no greater than 10 microns), was associated with 0.81% (95% confidence intervals (CI) 0.39%, 1.22%), 2.22% (95% CI: 1.27%, 3.16%) and 2.31% (95% CI: 1.17%, 3.45%) increase in outpatient visits for eczema, respectively. A 10 °C elevation of temperature on lag 0 day were associated with 8.44% (95% CI: 4.66%, 12.22%) increase in eczema visits, whereas 10 unit decrease of 7-day average relative humidity were associated with 10.86% (95% CI: 8.83%, 12.89%) increase in eczema visits. This study provided clear evidence of ambient air pollution, high temperature and low relative humidity on increasing the incidence of eczema in Shanghai, China.

Speaker Biography

Anqi Li, a student in West China School of Medicine, Sichuan University, who is studying for the master degree under Professor Li Li. My study research is about the air pollution and skin diseases especially skin allergy. During my study in university I am a top student and have been awarded The First-class Scholarship, Excellent Student Leader Scholarship for my high grades, excellent performance in examinations and devotion to the services to the Student Association. I worked for 2 years in outpatient department of dermatology and 6 months in hospitalized wards of dermatology in West China Hospital, Sichuan University. The major work was involved in diagnosis and treatment of daily general skin problems. Also I actively participated in overseas student teaching program in the ward of dermatology.

e: lianqi1110@163.com