meteorological factors and NO₂ were controlled, an increase in 10 microg/m³ in PM (2.5) was associated with EHV for cerebral haemorrhage with ORs of 1.168 (95% CI 1.000, 1.363). But there was no relationship between the daily average PM (10) concentration and EHV. The association between PM_{2.5} and EHV for hypertension was significantly modified when the mass was high in Ni or V.

Conclusions Elevated urban gaseous air pollution was associated with increased EHV for cerebral haemorrhage in Changsha, China. PM (2.5) mass higher in Ni and V significantly increased its effect on EHV for hypertension.

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AMBIENT FINE PARTICLE METAL COMPONENTS AND EMERGENCY HOSPITAL VISITS FOR HYPERTENSION IN CHANGSHA, CHINA: A TIME-STRATIFIED CASE-CROSSOVER STUDY

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Objectives To explore the risk effect of fine particle and metal components on the emergency hospital visits (EHVs) for hypertension in Changsha, China.

Methods We gathered data on daily EHV for hypertension from the third Xiangya hospital of central south university, collected metal components concentration of fine particulate matter less than 2.5 µm in aerodynamic diameter (PM (2.5)), particulate matter less than 10 microm in aerodynamic diameter (PM (10)), sulphur dioxide, and nitrogen dioxide in Changsha, China during June and October in 2009. A time-stratified case-crossover design with distributed lag model was used to evaluate associations between ambient air pollutants and hypertension. Daily mean temperature, atmospheric pressure and wind velocity were controlled in all models.

Results There were 1 027 EHV for hypertension during the study period. After daily mean temperature, atmospheric pressure, wind velocity, NO₂ and SO₂ were controlled in models, an increase in 10 µg/m³ in PM (2.5) was associated with EHV for cerebral haemorrhage with ORs of 1.177 (95% CI 1.006, 1.376); after