[gw22-e0054] **THE EFFECT OF DIFFERENT OBSERVED PERIOD ON BLOOD PRESSURE – TEMPERATURE RELATIONSHIP EVALUATION**

Peng Qiang, Xia Linglin, Hong Dezhi, Hu Weitong, Su Hai *Second Affiliated Hospital of Nanchang University, Nanchang, China*

10.1136/heartjnl-2011-300867.337

Methods 15 mild hypertensive patients (63±8 years) and non-hypertensive 15 normotensive persons (64±7 years) living in Nanchang city were included in this study. All the participants did not use antihypertensive drugs and were followed from the 1st to the 31st of January 2009. Their morning and evening BP were measured with their own electronic BP monitor in home and recorded. The highest (HT) and lowest (LT) temperature of each day throughout the year in Nanchang were recorded by a staff. All participants had BP record over 350 days. The data of the year (year period), August and January (month period) and the first week of August and January (week period) were selected for evaluating the BP-temperature relationship with correlation analysis. The mean BP, correlation coefficient of BP – temperature relation and the BP change per degree temperature (BP/C) were calculated.

Results (1) The mean BPs on the year, month and week period were similar whether in hypertensive patients or in normotensive persons. (2) The correlation coefficient on week period was the highest, and that on year period was the lowest. The correlation coefficients for systolic BP (SBP) – LT relation in the morning on week, month and year were −0.61±0.43, −0.53±0.34 and −0.29±0.24 respectively. The SBP/C of lowest temperature in the morning on week, month and year were 1.96±0.40, 1.41±0.34 and 1.37±0.53 mm Hg/C respectively. (3) The relation between morning BP and LT was stronger then other BP and temperature parameters. (4) The BP- temperature relation was stronger in hypertensive patients than normotensive persons.

Conclusions Regardless the length of observation period, the BP showed a negative correlation with temperature; but the length of observation period can influence the value of BP-temperature relation at some extent.