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INFLUENCE OF SALT LOADING AND POTASSIUM SUPPLEMENT ON SHORT TERM BLOOD PRESSURE VARIABILITY FOR SALT-SENSITIVITY ADULTS

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Yu Chao, Jianjun Mu, Haixia Xu, Keyu Ren, Shuhui Zheng, Fuqiang Liu, Qiufang Lian, Jianjun Mu. *Department of Cardiology, The First Affiliated Hospital of Medical College, Xi'an Jiaotong University*

Objectives To observe the change of short blood pressure variation on salt-sensitive normotensive people after sodium-potassium diet, and explore the relationship between blood pressure variability and salt-sensitivity.

Methods A baseline survey was carried out in 93 normotensive adults (age>16) in Mei county, Shanxi province from April to October, 2004. All subjects were recruited and sequentially maintained on a protocol with 7 days low salt diet, 7 days high salt diet, and high salt diet with potassium supplementation for another 7 days. We measured blood pressure three times on the last day of each stage, and compute the SD and coefficient of variation as indicator of short term blood pressure variability.

Results Completed a total of 93 cases, 32.26% for the salt sensitivity. Baseline blood pressure variability of salt-sensitive was larger than salt-resistive group, and there was significant difference on systolic pressure. Salt restriction and potassium supplementation reduced short-term blood pressure variability of salt-sensitivity, while high-salt diet increased blood pressure variation, whereas no obvious changes were observed in non-salt-sensitive group.

Conclusions High salt intake and salt sensitivity are important risk factors for increasing blood pressure variation. Salt restriction and potassium supplementation may be protective.