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AN ASSOCIATION BETWEEN RENAL FUNCTION AND ARTERIAL STIFFNESS IN GENERAL URBAN AND RURAL UIGHUR RESIDENTS

Pan Shuo, Ma Yitong, Yang Yining, Li Xiaomei, Liu Fen, Xie Xiang *Department Of Cardiology, First Affiliated Hospital Of Xinjiang Medical University, Urumqi, China*

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Objective To study the relationship between renal function and arterial stiffness level of general urban and rural Uighur residents.

Methods From October 2007 to March 2010, four-stage stratified random sampling method was applied to collect a total of 14618 Han, Uighur and Kazak residents above 35 years old in Urumqi, Karamay City, Fukang city, Turpan area, Hotan Prefecture, Yili Kazak Autonomous Prefecture and Altai Prefecture. This essay analyses 4312 general urban and rural Uygur residents with complete data. Simplified MDRD

formula was used to estimate glomerular filtration rate and both sides of the arm-ankle pulse wave velocity (b-aPWV) were measured. We take the average of both sides of PWV to do correlation analysis with eGFR and then adjust the risk factors.

Results Estimated glomerular filtration rate (eGFR) and the average b-aPWV value was significantly correlated ($R=-0.174$, $p<0.001$). Multiple linear regression showed that after adjusting some risk factors such as age, sex, body mass index, systolic blood pressure, diastolic blood pressure, waist circumference, hip circumference, uric acid, fasting blood glucose, total cholesterol, triglycerides, LDL, eGFR is still correlated inversely with the b-aPWV.

Conclusion In general urban and rural Uygur residents in Xinjiang, the glomerular filtration rate and arterial stiffness are inversely correlated.