GW23-e2178 **HS-CRP AND TRADITIONAL RISK FACTORS: WHO IS STILL SIGNIFICANTLY ASSOCIATED WITH DIABETES IN CHINESE OLDEST-OLD?**

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Objectives Increasingly more studies have shown that high sensitivity C-reactive protein (hs-CRP) is related to diabetes in adults; thus, hs-CRP is thought to be a new emerging risk factor for cardiovascular disease, and diabetes. In addition, there are studies suggesting that the predictive value of classic risk factors diminish with advancing age; these results are controversial, and to our knowledge, few studies have explored the association of hs-CRP and diabetes in the oldest old. This study aimed to address the knowledge gap through analysis of the association of traditional risk factors and hs-CRP with diabetes among a group of Chinese oldest old.

Methods 1603 participants in the fifth wave of the Chinese Longitudinal Healthy Longevity Study (CLHLS) from five longevity areas were invited to participate in this sub-study; based on availability of hs-CRP and other related data, 522 subjects aged 80 and older were included in the sample. Information was collected related to demographics (age, sex, nationality, marriage, and education), lifestyle (smoking status, drinking status, and physical activity), and self-reported chronic diseases, including diabetes and hypertension. Measurements of waist circumstance, diastolic blood pressure and systolic blood pressure were performed. High sensitively C reactive protein (hs-CRP), total cholesterol (TC), triglycerides (TG) and fasting plasma glucose (FPG) were tested in a certified laboratory in Beijing. The subjects were classed into two groups according to the prevalence of diabetes (a positive self-report or a plasma glucose of above 7.0 mmol/l was considered to be diabetic). Student's t-test was used to compare the basic characteristics and clinical biochemical indices. Logistic regression was used to analyse the association of hs-CRP and traditional risk factors of diabetes (including age, smoking status, drinking status, physical activity, central obesity, total cholesterol, triglycerides). Also multivariable linear regression was fit to explore the relation of hs-CRP and traditional risk factors with FPG.

Results Compared with the non-diabetic group, plasma hs-CRP concentrations in the diabetic group were significantly higher (median value 1.95 mg/l, $p < 0.05$). The percentage of high hs-CRP subjects (hs-CRP level above 75th percentile, that is no less than 4.52 mg/l) was also significantly higher ($p < 0.05$) in the diabetic group (34.85% in the diabetic group vs 23.64% in the non-diabetic group). The traditional risk factors for diabetes were not significantly different ($p > 0.05$) in the two groups. Logistic regression analysis showed that hs-CRP was significantly positively associated with diabetes ($p < 0.05$) after adjusting for demographic variables (sex, nationality, marriage, education) and hypertension. The odds of diabetes was increased with increased concentrations of hs-CRP, with OR (95% CI) value was 1.87 (1.05, 3.31). In contrast, the traditional risk factors mentioned above were not significantly associated with diabetes except for TG; the OR (95% CI) value for age, smoking status, drinking status, physical activity, central obesity, total cholesterol, TG was 0.99 (0.94, 1.04), 1.77 (0.89, 3.50), 0.86 (0.40, 1.85), 0.77 (0.41, 1.43), 1.28 (0.73, 2.25), 0.79 (0.59, 1.06), 1.84 (1.11, 3.03), respectively. Adjusting for demographic variables, systolic blood pressure and diastolic blood pressure in multivariable linear regression models, hs-CRP was positively associated with FPG, with the coefficient was 0.03 ($p < 0.01$); in contrast, in adjusted multivariable models, traditional risk factors, with the exception of TG (the coefficient was 0.62, $p < 0.01$), were not associated with diabetes.

Conclusions In contrast to traditional risk factors of diabetes except TG, hs-CRP is significantly and independently associated with diabetes in the Chinese oldest-old.