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Diabetes survey in Ha Tinh province

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Background: Diabetes type 2 - one of the non contagious diseases, is common and is spreading across the world. Changes in human behavior and lifestyle over the last century have resulted in a dramatic increase in the incidence of diabetes worldwide. This situation is the same in Ha Tinh province, Vietnam.

Objectives: To determine the prevalence of diabetes and impaired glucose tolerance among people aged 30 to 64 in Ha Tinh province. To investigate risk factors related to diabetes.

Methods: A cross-sectional study was conducted among 2200 people in 22 wards aged 30 - 64 in Ha Tinh province. An interview-administered questionnaire was used to obtain disease history and risk factors. Participants have been measured with anthropometric index. Fasting blood glucose was measured. Glucose tolerance test was performed for persons having a fasting glucose level of 5.6 mmol/l or more. Medical statistic data was used.

Results: The prevalence of diabetes and impaired glucose tolerance among people aged 30 to 64 in Ha Tinh province were 3.8% and 5.2%. Risk factors related to diabetes: Older people are more likely to get diabetes than younger one. There was no difference in the prevalence of diabetes among men and women. In addition, there was association between diabetes with hypertension, BMI, WHR and sweets habit. Past history of family diabetes had 2.4 times more risk of diabetes than non-one.

Conclusion: Diabetes and impaired glucose tolerance were high prevalence in Ha Tinh province. The results suggested that hypertension, abnormal anthropometric index had big role in increase in diabetes in individuals.

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Soluble CD36 in plasma and urine: A plausible prognostic marker for diabetic nephropathy

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Aim: This study was designed to analyze the level of soluble CD36 (sCD36) in both plasma and urine of type 2 diabetic patients with and without micro-albuminuria/macro-albuminuria.

Methods: Study subjects (n=20 each) comprised of those with normal glucose tolerance, type 2 diabetes (T2DM) with normo-albuminuria, T2DM with micro-albuminuria and T2DM with macro-albuminuria. The biochemical parameters were analyzed using auto-analyzer and the level of sCD36 was estimated using an in-house Sandwich ELISA.

Results: The presence of sCD36 has been identified for the first time in the urine sample. Significant increase in the level of sCD36 was observed in both plasma and urine of diabetic patients with micro-albuminuria ($P<0.01$) and macro-albuminuria ($P<0.001$). Positive correlation of sCD36 with the kidney markers such as urea, creatinine and e-GFR confirmed the association of sCD36 with kidney damage in diabetic patients. Micro-albuminuria, which is clinically used as a biomarker for nephropathy showed a strong positive correlation with urine sCD36 ($r=0.642$; $P<0.001$) and plasma sCD36 ($r=0.498$; $P<0.001$) in Pearson correlation analysis, which was further substantiated in stepwise multiple regression analysis.

Conclusions: Our study implies a plausible prognostic/adjutant biomarker role of soluble CD36 for diabetic nephropathy.

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