Management of type 2 diabetes in ethnic minority groups in Hong Kong: what do primary care physicians need to know?

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Introduction
About 95 per cent of Hong Kong's population is ethnic Chinese; the remaining consists of ethnic minority groups mainly from India, Indonesia, Nepal, Pakistan and Philippines. Previous studies have shown that diabetes affects certain ethnic groups differently, however, local data on the diabetic control among ethnic minority diabetes patients is still lacking.

Objectives
To identify the demographics and to compare the diabetes control of ethnic minority group diabetes patients with Chinese diabetes patients managed in the primary care and to explore possible strategies to improve.

Methodology
Setting: General Outpatient Clinic (GOPC) of Hospital Authority, Hong Kong. Design: Retrospective case series study. Methods: Type 2 diabetes patients including all Chinese and ethnic minority groups who have been regularly FU in a local GOPC and with annual assessment done between 01/03/2012 to 28/2/2013 were recruited. Their complete blood picture, serum creatinine (Cr), estimated glomerular filtration rate (eGFR, calculated by MDRD method), Haemoglobin A1c (HbA1c) and urine albumin-creatinine ratio (ACR) were retrieved. Student’s t-test and analysis of variance (ANOVA) were used for analysing continuous variables and Chi-square test for categorical data. All statistical tests are two-sided, and a p-value of <0.05 was considered significant.

Result
Results: Among 4346 type 2 diabetes patients fulfilling the inclusion criteria, 3966 patients (91.3%) were Chinese in origin and 380 (8.7%) were from the ethnic minority groups. Compared with Chinese diabetes patients, ethnic minority diabetes patients were much younger but more obese and had a lower co-morbidity rate of hypertension, stroke, IHD and CKD (all P<0.05). With regards to diabetes control, their glycaemic control was much worse (mean Hba1c 7.8 1.7% versus 7.3
1.3%, P <0.001), average diastolic blood pressure much higher, HDL much lower (1.20 0.32mmol/L versus 1.33 0.37mmol/L, P < 0.001) and triglyceride much higher (1.72 1.21mmol/L versus 1.57 1.13mmol/L, P =0.016) than Chinese diabetes patients. Among the five top ethnic minority groups of diabetes patients managed in this clinic, the metabolic and lipid control of Pakistani diabetes patients was particularly poorer (P <0.001). Conclusions: Ethnic minority group is an integral part of Hong Kong population. Compared with Chinese diabetes patients, ethnic minority diabetes patients were much younger but more obese. Deficiencies exist in the comprehensive management of diabetes, particularly the glycaemic control and lipid control. Culturally tailored healthcare interventions are therefore required to promote patient education and clinical effectiveness among this group of patients and improve their health status in the long run.