Five year follow-up of the cardiovascular risk factors in staff of Tseung Kwan O Hospital

Lau CK(1), Luk WK(2), Tam E(3), San J(1), Wong C(1), Tsang V(1), Wong WM(2), Yeung H(4), Hui YS(5), Shum W(3)
(1)Department of Medicine, (2)Department of Clinical Pathology, (3)Nursing Services Division, (4)Human Resources Department, (5)Specialist Outpatient Department, Tseung Kwan O Hospital.

Keywords:
cardiovascular risk factor
hospital staff
DM
IFG
overweight

Introduction
 Coronary heart disease (CHD) is the commonest cause of death in Hong Kong. As part of the 15th anniversary celebration of Tseung Kwan O hospital (TKOH), a comprehensive risk assessment for cardiovascular health was offered to all hospital staff. We have also compared the results with those in our 10th anniversary.

Objectives
To determine the prevalence and the trend of cardiovascular risk factors in TKOH staff over this 5 year period.

Methodology
Staff at TKOH was invited to participate in screening for cardiovascular risk factors in 2009 and 2014. All staff filled in a short health questionnaire, body mass index (BMI) and blood pressure were measured. Fasting blood for glucose and lipid were checked. The prevalence of individual cardiovascular risk factors and the 10-years risk for coronary heart disease were calculated. Those with medium 10-years CHD risk were counselled on lifestyle modification, and those with high risk were referred for medical treatment.

Result
Four hundred and eighty nine and 505 staff were enrolled in 2009 and 2014 respectively. The median age of the cohort was 46 and 47 years respectively, around
79% were female. Around 3 to 4% were smokers and 3%, 8% and 1% of staff gave a past history of diabetes mellitus (DM), hypertension (HT) and ischaemic heart disease respectively, which is stable over the years. The median BMI was 22.7 Kg/m² and 47% had a BMI ≥ 23Kg/m² (overweight) in both occasions. There was a trend of lower cardiovascular risk, 9 staff (2%) had high (≥ 20% 10-year probability), 47 (10%) had medium (10-20%) risk for coronary heart disease in 2009, whereas only 6 staff (1%) had medium risk in 2014. Undiagnosed medical conditions remained common, there were 9 (2%) and 35 (7%) staff diagnosed to have DM and impaired fasting glucose (IFG) respectively in 2009 and the incidence had increased to 8 (2%) and 69 (14%) staff for DM and IFG respectively in 2014. In conclusion, the individual risk factors for CHD had decreased over this 5 year period. However, overweight is still common and there is a trend of increase in undiagnosed IFG.